DOCTORAL THESIS

A Battle Royal : Digital Music Piracy v. the Music Industry, an Assessment of Australian Copyright Law.

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A BATTLE ROYAL: *DIGITAL MUSIC PIRACY v. THE MUSIC INDUSTRY*. AN ASSESSMENT OF AUSTRALIAN COPYRIGHT LAW

A thesis presented to Bond University in application for the Degree of Doctorate of Legal Science (SJD)

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This thesis is submitted to Bond University in fulfilment of the guidelines as provided by the Bond University Handbook Award Regulations and Higher Degree Research Study Guide for the degree of Doctorate of Legal Science (SJD).

CANDIDATE'S DECLARATION

I hereby declare that the work presented in this thesis is to the best of my knowledge and belief, original (except as acknowledged and cited in the text) and that the work has not been previously submitted for a degree or diploma at Bond University or any other institution. The work has been carried out by me with the aid of those mentioned in the acknowledgments.

Signed by: 

JASON GOLDSCHMIED

ABSTRACT

This thesis first analyses the practice of file sharing of copyrighted digital sound recordings via the Internet and it's affects upon the music industry. Since the late 1990s, file sharing has become a strongly debated topic among music industry experts and consumers alike, in part due to the decreases in revenue and profits realised by the major record labels.[1] The record labels contend that their losses in revenue are directly correlated to the widespread dissemination of copyrighted sound recordings via Peer-to-Peer ("P2P") networks[2] created for the purpose of allowing users unlimited access to music for free.[3] However, others contend that file sharing is the future trend and that music industry commercial practice has been slow to catch up with new technology.

The thesis then also explores the full circle of evolution which has taken place both with the amendments to the Australian copyright legislation, in the commercial delivery methods, consumer models and technologies deployed by copyright owners. Copyright owners have now taken a practical approach, improving online music distribution and meeting consumer demands rather than utilising technologies that control and restrict content to an excessive degree. However, in the meantime the law has become technologically specific in order to capture certain digital technologies and is arguably too closely aligned to the music industries' interests in stamping out unauthorised file sharing.

The thesis details the Australian copyright developments in response to file sharing and evaluates the success of the legal response and the underlying policy drivers behind the legislative amendments. The thesis also examines the current copyright legislation in Australia in the context of the modern trend of globalisation and its impact on the copyright balance in Australia.

[1] For definition of "major record labels" see Glossary of Terms at p.22 of this thesis.
[2] For definition of "P2P" see Glossary of Terms at p.23 of this thesis.
[3] Solley, T., *"The Problem and the Solution: Using the Internet to Resolve Internet Copyright Disputes"*, 24 Ga. St. U. L. Rev. 813, 2007-2008., p.813.

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EXECUTIVE SUMMARY

During the last four decades, only a few industries have seen as many changes as the music industry. From bands playing gigs at venues, just to increase the public's awareness of their music, to Music Television and now Cyberspace.[4]

The technology driven changes in the industry have dramatically transformed the way music is distributed to the public.[5] It is especially interesting to examine the impact of the Internet on the music industry and how this medium has changed the face of today's music business. The Internet has turned out to be the new distribution channel of music recordings, taking away the traditional distribution monopoly from the major record labels.[6]

While formerly only the big major labels had the financial power to run huge, worldwide promotion campaigns, the Internet now also enables small independent labels to promote and sell their artists around the world for a fraction of former costs.[7]

The advent of Moving Pictures Expert Group 1 Audio Layer 3 ("MP3") technology[8] has made it possible to download high-quality audio direct from Peer to Peer ("P2P") programs and web sites on the Internet, making it a worldwide auditioning system and free publicity channel for new musicians.[9] The major legal issue is the free downloading of copyright protected sound recordings, which frustrates and continues to infuriate the major record labels.[10] The latest international developments in the courts with such cases as *A&M Records Inc v. Napster Inc.,* ("Napster")[11] *Metro Goldwyn Mayer Studios Inc. v. Morpheus, Grokster and KaZaA*

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[4] Bockstedt, J., Kauffman, R., and Riggins, F., *"The Move to Artist led Online Music distribution: A Theory-Based Assessment And Prospects For Structural Changes In The Digital Music Market"*, International Journal Of Electronic Commerce, Vol. 10, Issue 3, Spring 2006, p.7.
[5] Escher, J., *"Copyright, Technology & the Boston Strangler: The Seventh Circuit and the Future of Online Music Access"*, Seventh Circuit Rev., Vol. 1, Issue 1, Spring 2006, p.74.
[6] Bockstedt, J., Kauffman, R., and Riggins, F., op.cit, pp.16-17.
[7] Haskins, W.,*"Ripples in the Music Industry, Part 2: The Sound of the Future"*, E-Commerce Times, 6 November 2007, located at http://www.technewsworld.com/story/60159.html (accessed on 4 February 2008)
[8] For definition of "MP3" see Glossary of Terms at p.23 of this thesis.
[9] Fogarty, P., *"Major Record Labels and the RIAA: Dinosaurs in a Digital Age"*, 9 Hous. Bus. & Tax L.J. 140, 2008-2009, pp.145-146.
[10] Ibid at p.147.
[11] *A&M Records Inc v. Napster Inc* 114 F. Supp. 2d 896 (N.D. Cal. 2000). aff'd in part rev'd in part, 239 F.3d 1004 (9th Cir. 2001); aff'd 284 F.3d 1091 (9th Cir. 2001).

("Grokster"),[12] *Universal Music Australia Pty Ltd & Ors v. Sharman Licence Holdings Ltd & Ors* ("Sharman")[13] and *Universal Music Australia Pty Ltd & Ors v. Cooper & Ors* ("Cooper")[14] have illustrated that the music industry would no longer tolerate unauthorised distribution of copyrighted music on the Internet. Instead the music industry decided to draw a battle line in the sand and declare war on music piracy.

In 1994, the Australian *Copyright Act 1968* (Cth) (referred to throughout as either the "Copyright Act" or the "Act") was perceived as a technologically specific Act which could not cope with new technologies.[15] In order to keep pace with the changing needs of technology and digital media, the Australian Parliament in December 2000, passed the *Copyright (Digital Agenda) Amendment Act 2000* (Cth) (the "Digital Agenda Act"). The rationale of the Digital Agenda Act was to simplify and improve copyright protection in the on-line environment by making the existing Copyright Act technologically neutral and consistent with the international standards adopted by the World Intellectual Property Organisation ("WIPO") Treaties.[16]

The lobbying of government by the recording industry and amendments negotiated under the *Australia – US Free Trade Agreement* in 2004 ("AUSFTA") impacted significantly on Australia's Copyright Act. Many amendments incorporated by the *US Free Trade Implementation Act 2004* (Cth) (the "FTA") required Australia shifting the Copyright Act back to being technologically specific in order to capture new digital distribution technologies such as P2P networks and iPods.[17]

Furthermore, the music industry too has shifted its position relating to the digital distribution of copyrighted music over time. Instead of working with new technologies as they emerged and partnering with them, the music industry threatened by the existence of P2P networks such as

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[12] *Metro Goldwyn Mayer Studios Inc. v. Morpheus, Grokster and KaZaA* 380 F.3d 1154 (9th Cir.), certiorari granted, 125 S. Ct. 686 (2004); No. 01-CV-8541 SVW (C.D.Cal. 2001); 243 F.Supp.2d 1073 (C.D.CA 2003); 259 F.Supp. 2d 1029 (C.D.CA 2003); 125 S. Ct 2764 (2005).

[13] *Universal Music Australia Pty Ltd & Ors v. Sharman Licence Holdings Ltd & Ors* [2005] FCA 1242; [2006] FCAFC 41.

[14] *Universal Music Australia Pty Ltd & Ors v. Cooper & Ors* [2004] FCA 78 (13 February 2004); [2005] FCA 972 (14 July 2005); [2005] FCA 1878 (22 December 2005); [2006] FCA 642 (29 May 2006); [2006] FCAFC 187 (18 December 2006).

[15] The Copyright Convergence Group in its report, *"Highways to Change – Copyright in the New Communications Environment"*, Copyright Reform and the Digital Agenda (Proposed Transmission Right, Right of Making Available and Enforcement Measures) Commonwealth Discussion Paper, March 1998, p.6.

[16] *WIPO Copyright Treaty 1996*; *WIPO Performances and Phonograms Treaty 1996.*

[17] For further explanation of "iPods" see Glossary of Terms at p.21 of this thesis.

Napster, litigated against them and succeeded in closing many of the popular networks down. In the meantime, the music industry attempted to deploy new digital distribution models by allowing the licensing of their content to independent retailers for a cost to the consumer whilst setting up their own proprietary models in competition.

The music industry also insisted on protecting their content by incorporating copy prevention technologies which attempted to lock up content and caused interoperability issues with consumers. Most of the proprietary models failed but some models were successful such as iTunes by Apple.[18]

Recently, however, there has been a change in thinking by the music industry. The music industry has now decided to start offering open format digital music by removing copy prevention technologies for a slightly increased cost to the consumer.[19]

A full circle of evolution has taken place not only in Australian copyright law but also in the digital music distribution model for consumers, essentially placing them back where they first started – at square one. The only difference being that the copyright industries have moved from rejection to acceptance of digital distribution models, whereas the law has not reverted to a flexible technologically neutral Act to provide for advancement of new technologies and instead has become heavy handed, complex, technologically specific and too closely aligned to the music industries' interests.

The purpose of this thesis is to firstly, foster a sufficient understanding of digital sound recording technology used on the Internet. Secondly, the thesis will focus on the music industry's business structure and practices and will assess whether the structure and practices are changing. Thirdly, the thesis will examine the ways in which the use of digital sound recording technology and

[18] For more information on "iTunes" see Glossary of Terms at p.21 of this thesis.
[19] McCarthy, C., "*EMI, Apple partner on DRM-free premium music*", CNET News.com, 2 April 2007 located at http://usatoday.com.com/EMI,+Apple+partner+on+DRM-free+premium+music/2100-1027_3-6172398.html (accessed on 6 May 2008); See Montalbano, E., "*Microsoft changes tune on selling DRM-free songs*", Computerworld, 6 April 2007, located at http://www.computerworld.com/action/article.do?command=viewArticleBasic&taxonomyName=mobile_devices&articleId=9015898&taxonomyId=75 (accessed on 8 January 2008); See also Kawatmoto, D., "*Amazon to offer DRM-free downloads*", CNET News.com, 16 May 2007, located at http://www.news.com/Amazon-to-offer-DRM-free-music-downloads/2100-1025_3-6184178.html (accessed on 1 July 2008) and Holahan, C., "*Sony BMG Plan to Drop DRM*", Business Week, 4 January 2008, located at http://www.businessweek.com/technology/content/jan2008/tc2008013_398775.htm (accessed on 8 January 2008).

digital distribution on the Internet impacts on music industry stakeholders. Fourthly, the thesis will address some of the latest developments both in Australia and overseas regarding distribution of digital music. Finally, the thesis will analyse the effectiveness of the amendments to Australia's copyright legislation and the implications it has for distributing digital sound recordings via the Internet.

GLOSSARY OF TERMS

1. **"A&R"** means Artist & Repertoire and refers to both the people and the departments within the music industry who are responsible for recruiting and developing new talent. The responsibilities of an A&R person include finding new artists, helping to negotiate deals, consulting with the artist to establish a solid direction for their music, helping to select the best material for the recording project, setting up and monitoring the budget for recording, and in general, overseeing the making of records from inception to completion.

2. **"Algorithm"** is *a formula or set of steps for solving a particular problem. To be an algorithm, a set of rules must be unambiguous and have a clear stopping point. Algorithms can be expressed in any language, from natural languages like English or French to programming languages like FORTRAN.

3. **"AHRA"** is *short for the *Audio Home Recording Act* (U.S.) 1992, an amendment to the U.S. Federal *Copyright Act* 1976. According to the AHRA, the manufacturers and importers of digital audio recording devices and media must pay a royalty tax to the copyright holders of music that is presumably being copied in order to compensate them for lost royalties due to consumers copying audio recordings at home. The payments are made to the U.S. Copyright Office, which then distributes the royalties accordingly. Digital audio recording devices also must include a system that prohibits serial copying. The most common system in use is the Serial Copy Management System ("SCMS").

4. **"AMD"** is *short for Advanced Micro Devices, a manufacturer of chips for personal computers. AMD is challenging Intel with a set of Intel-compatible microprocessors and is the manufacturer of the Athlon CPU

5. **"AMP MP3 playback engine"** is regarded as the first mainstream MP3 player to become a popular success amongst users of the Internet.

6. **"Analogue data"** *describes a device or system that represents changing values as continuously variable physical quantities. When used in reference to data storage and transmission, analogue format is that in which information is transmitted by modulating a continuous transmission signal, such as amplifying a signal's strength or varying its frequency to add or take away data. Computers, which handle data in digital form, require modems to turn signals from digital to analogue before transmitting those signals over communication lines such as telephone lines that carry only analogue signals. The signals are turned back into digital form (demodulated) at the receiving end so that the computer can process the data in its digital format.

7. **"APRA"** means the *Australasian Performing Right Association Ltd and is a copyright collection agency that represents composer, lyricist and music publisher members, and other international associates for local rights. APRA collects licence fees from many different sources, the major ones being radio stations, free-to-air television stations, subscription television operators, dance clubs, fitness centres, cinemas, live concerts, airlines, and businesses which play music for their customers.

8. **"ARIA"** stands for the Australian Recording Industry Association. ARIA provides licences on behalf of ARIA members to individuals and organisations who wish to make legitimate reproductions of sound recordings for some specific limited purposes (such as commercial background music suppliers).

9. **"ARPANET"** is *the precursor to the Internet, ARPANET was a large wide-area network created by the United States Defence Advanced Research Project Agency (ARPA). Established in 1969, ARPANET served as a test bed for new networking technologies, linking many universities and research centres. The first two nodes that formed the ARPANET were UCLA and the Stanford Research Institute, followed shortly thereafter by the University of Utah.

10. **"Bandwidth"** is *the amount of data that can be transmitted in a fixed amount of time. For digital devices, the bandwidth is usually expressed in bits per second (bps) or bytes per second. For analogue devices, the bandwidth is expressed in cycles per second, or Hertz (Hz).

11. **"Binary code"** *is a number system that has just two unique digits. For most purposes, the decimal number system has ten unique digits, 0 through 9. All other numbers are then formed by combining these ten digits. Computers are based on the binary numbering system, which consists of just two unique numbers, 0 and 1. All operations that are possible in the decimal system (addition, subtraction, multiplication, division) are equally possible in the binary system.

12. **"Broadband"** is *a type of data transmission in which a single medium (wire) can carry several channels at once. Cable TV, for example, uses broadband transmission. In contrast, baseband transmission allows only one signal at a time. Most communications between computers, including the majority of local-area networks, use baseband communications. An exception is B-ISDN networks, which employ broadband transmission.

13. **"Burn, Burning"** is a *slang term meaning to write data to a CD-ROM. A CD burner is another name for a CD-R drive.

14. **"Byte(s)"** means a unit of measurement of information storage, most often consisting of eight bits. In many computer architectures it is a unit of memory addressing.

15. **"Cache"** is *a special high-speed storage mechanism. It can be either a reserved section of main memory or an independent high-speed storage device. Two types of caching are commonly used in personal computers: memory caching and disk caching. A memory cache, sometimes called a cache store or RAM cache, is a portion of memory made of high-speed static RAM (SRAM) instead of the slower and cheaper dynamic RAM (DRAM) used for main memory. Memory caching is effective because most programs access the same data or instructions over and over. By keeping as much of this information as possible in SRAM, the computer avoids accessing the slower DRAM. Disk caching works under the same principle as memory caching, but instead of using high-speed SRAM, a disk cache uses conventional main memory. The most recently

accessed data from the disk (as well as adjacent sectors) is stored in a memory buffer. When a program needs to access data from the disk, it first checks the disk cache to see if the data is there. Disk caching can dramatically improve the performance of applications, because accessing a byte of data in RAM can be thousands of times faster than accessing a byte on a hard disk.

16. **"CD Burner"** is a device used to burn CDs.

17. **"CD Ripper"** is *a software program that "grabs" digital audio from a compact disc and transfers it to a computer's hard drive. The integrity of the data is preserved because the signal does not pass through the computer's sound card and does not need to be converted to an analogue format. The digital-to-digital transfer creates a WAV file that can then be converted into an MP3 file.

18. **"CD-R Drive**" is *short for Compact Disk-Recordable drive, a type of disk drive that can create CD-ROMs and audio CDs. This allows users to "master" a CD-ROM or audio CD for publishing. Until recently, CD-R drives were quite expensive, but prices have dropped dramatically.

19. **"CD-R"** means Compact Disc-Recordable. A compact disc that can be recorded using a computer. CD-Rs are inexpensive but cannot be rewritten.

20. **"CD-ROM or CD"** is *known by its abbreviation, CD, a compact disc is made from polycarbonate with one or more metal layers capable of storing digital information. The most prevalent types of compact discs are those used by the music industry to store digital recordings and CD-ROMs used to store computer data. Both of these types of compact disc are read-only, which means that once the data has been recorded onto them, they can only be read, or played

21. **"CD-RW"** means Compact Disc-Rewritable. CD-RWs are more expensive than CD-R's, but unlike CD-R's they can be rewritten.

22. **"Click or Clicking"** means the process by which a visitor navigates through websites by clicking on hyperlinks.

23. **"Client-server architecture"** means *a network architecture in which each computer or process on the network is either a client or a server. Servers are powerful computers or processes dedicated to managing disk drives (file servers), printers (print servers), or network traffic (network servers). Clients are PCs or workstations on which users run applications. Clients rely on servers for resources, such as files, devices, and even processing power.

24. **"Codec"** is *short for compressor/decompressor, a codec is any technology for compressing and decompressing data, particularly those that would otherwise use up inordinate amounts of disk space. Codecs can be implemented in software, hardware, or a combination of both. Some popular codecs for computer video include MPEG, Indeo and Cinepak.

25. **"Collecting/Collection Societies"** Collection societies began in Europe, concurrent with the coming into being of the Berne Convention, and were first formed for the administration of the rights and collection of royalties for authors of copyright works (more specifically music). Collecting societies now exist in a multitude of countries.

26. **"Compilation"** refers to one or more of a number of music works which have been 'compiled' or 'remixed' to form a new musical track.

27. **"Compression"** means the reduction of a digital files size using a compression algorithm, a mathematical "recipe" that permits the removal of redundant or non-essential information. *Data compression is particularly useful in communications because it enables devices to transmit or store the same amount of data in fewer bits.

28. **"Copyright"** is a statutorily created monopoly, the usual justification for which is the establishment of incentives to create, that covers a broad range of literary, artistic, dramatic and musical expression (including books, poetry, dance, song, drama, computer programs, sculpture, and painting) and includes an exclusive right to reproduce. Copyrights are easier to secure and last substantially longer than patents, but offer narrower and less absolute scopes of protection.

29. **"CRIA"** is the Canadian Recording Industry Association. CRIA's membership is comprised of the major record companies, leading independent labels, and all manufacturers of compact discs and tapes. In all, they represent in excess of 95% of the sound recordings that are manufactured and sold in Canada.

30. **"CSS"** refers to a Content Scrambling System used to code and encrypt data.

31. **"Cyberspace"** is *a metaphor for describing the non-physical terrain created by computer systems. Online systems, for example, create a cyberspace within which people can communicate with one another (via e-mail), do research, or simply window shop. Like physical space, cyberspace contains objects (files, mail messages, graphics, etc.) and different modes of transportation and delivery. Unlike real space, though, exploring cyberspace does not require any physical movement other than pressing keys on a keyboard or moving a mouse.

32. **"DAT tapes"** is an *acronym for digital audio tape, a type of magnetic tape that uses a scheme called a helical scan to record data. A DAT cartridge is slightly larger than a credit card in width and height and contains a magnetic tape that can hold from 2 to 24 gigabytes of data. It can support data transfer rates of about 2 Mbps. Like other types of tapes, DATs are sequential-access media.

33. **"Dolby"** is a standard for high-quality digital audio that is used for the sound portion of video stored in digital format, especially videos stored on DVD-ROMs. Dolby Digital delivers 6 channels in the so called "5:1" configuration: left, right, and centre screen channels, separate left and right sounds, and a subwoofer channel. This is sometimes called surround sound or 3D sound.

34. **"Data"** are *distinct pieces of information, usually formatted in a special way. All software is divided into two general categories: data and programs. Programs are collections of instructions for manipulating data. Data can exist in a variety of forms -- as numbers or text on pieces of paper, as bits and bytes stored in electronic memory, or as facts stored in a person's mind. Strictly speaking, data is the plural of datum, a single piece of information. In practice, however, people use data as both the singular and plural form of the word.

35. **"Databases"** are *often abbreviated as DB. A collection of information organised in such a way that a computer program can quickly select desired pieces of data. Traditional databases are organised by fields, records, and files. A field is a single piece of information; a record is one complete set of fields; and a file is a collection of records. For example, a telephone book is analogous to a file. It contains a list of records, each of which consists of three fields: name, address, and telephone number. An alternative concept in database design is known as Hypertext. In a Hypertext database, any object, whether it be a piece of text, a picture, or a film, can be linked to any other object. Hypertext databases are particularly useful for organising large amounts of disparate information, but they are not designed for numerical analysis. To access information from a database, a user needs a database management system (DBMS). This is a collection of programs that can enable the user to enter, organise, and select data in a database.

36. **"Decryption key"** means *the process of decoding data that has been encrypted into a secret format. Decryption requires a secret key or password.

37. **"DeCSS"** is *short for Decrypt Content Scrambling System, an algorithm for circumventing the CSS copy protection used in DVDs, allowing the decryption of the digital data. In the U.S., the DeCSS algorithm is considered to be a violation of US *Digital Millennium Copyright Act*.

38. **"Digital Compact Cassette format"** is a digital recording system using a stationary record/playback head, so it could also read ordinary analogue cassettes.

39. **"Digital tag"** is *a command inserted in a document that specifies how the document, or a portion of the document, should be formatted. Tags are used by all format specifications that store documents as text files. This includes SGML and HTML. A digital tag may also mark a section of a document with a formatting command.

40. **"Digital watermarking"** is *also referred to as simply watermarking, a pattern of bits inserted into a digital image, audio or video file that identifies the file's copyright information (author, rights, etc.). The name comes from the faintly visible watermarks imprinted on stationery that identify the manufacturer of the stationery. The purpose of digital watermarks is to provide copyright protection for intellectual property that is in digital format. Unlike printed watermarks, which are intended to be somewhat visible, digital watermarks are designed to be completely invisible, or in the case of audio clips, inaudible. Moreover, the actual bits representing the watermark must be scattered throughout the file in such a way that they cannot be identified and manipulated. And

finally, the digital watermark must be robust enough so that it can withstand normal changes to the file.

41. **"DNS"** is *short for Domain Name System (or Service or Server), an Internet service that translates domain names into IP addresses. Because domain names are alphabetic, they are easier to remember. The Internet however, is really based on IP addresses. Every time a user enters a domain name a DNS service must translate the name into the corresponding IP address. For example, the domain name www.example.com might translate to 198.105.232.4.

42. **"DNS registries"** refers to registries that allow the operator of each node of the Internet to reserve a domain name for the node's IP address. Internet Service Providers ("ISPs") as well as other companies using the Internet for business purposes usually register the nodes that they operate under suggestive domains names that indicate the type of service offered by them.

43. **"Downloading vs. Streaming"** means rather than downloading a whole MP3 and then listening to it, streaming an MP3 allows the user to listen to the MP3 as it is being downloaded.

44. **"DRM"** is *short for digital rights management, a system for protecting the copyrights of data circulated via the Internet or other digital media by enabling secure distribution and/or disabling illegal distribution of the data. Typically, a DRM system protects intellectual property by either encrypting the data so that it can only be accessed by authorised users or marking the content with a digital watermark or similar method so that the content can not be freely distributed.

45. **"DVD"** is *short for digital versatile disc or digital video disc, a type of optical disk technology similar to the CD-ROM. A DVD holds a minimum of 4.7GB of data, enough for a full-length movie. DVDs are commonly used as a medium for digital representation of movies and other multimedia presentations that combine sound with graphics.

46. **"DVD-R"** is short for DVD-Recordable, a recordable DVD format similar to CD-R. A DVD-R can only record data once and then the data becomes permanent on the disc. DVD-R is a competitor of DVD+R and is backed by Pioneer, Panasonic, Toshiba, and others.

47. **"DVD+R"** is short for DVD+Recordable, a recordable DVD format similar to CD-R. A DVD+R can only record data once and then the data becomes permanent on the disc. The disc can not be recorded onto a second time. DVD+R and DVD+RW formats are supported by Philips, Sony, Hewlett-Packard, Dell, Ricoh, Yamaha and others.

48. **"DVD-RAM"** (DVD–Random Access Memory) is a disc specification presented in 1996 by the DVD Forum. The term DVD-RAM is a misnomer as the name is based on the erroneous abbreviation for RAM, meaning "read-and-write memory" - the opposite of ROM (Read-Only Memory). However, RAM actually stands for Random Access Memory and DVDs cannot inherently use the random access method. DVD-RAM media has been used in computers as well as camcorders and personal video recorders since

1998. Compared with other writeable DVDs, DVD-RAM is more closely related to hard disk technology, as it has concentric tracks instead of one long spiral track. Unlike the competing formats DVD+R, DVD-R, DVD+RW and DVD-RW, special DVD burning software is not required to write or read DVD-RAMs on a computer. DVD-RAMs can be accessed like a usual floppy disk or hard drive. DVD-RAM is a highly reliable format and is more durable for long life storage than the competing formats.

49. **"DVD-RW"** is short for DVD-ReWritable, a re-recordable DVD format similar to DVD+RW. The data on a DVD-RW disc can be erased and recorded over numerous times without damaging the medium. DVD-R, DVD-RW are supported by Panasonic, Toshiba, Apple Computer, Hitachi, NEC, Pioneer, Samsung and Sharp. These formats are also supported by the DVD Forum.

50. **"DVD+RW"** is short for DVD+ReWritable, a re-recordable DVD format similar to CD-RW. The data on a DVD+RW disc can be erased and recorded over numerous times without damaging the medium. DVD+RW and DVD+R formats are supported by Philips, Sony, Hewlett-Packard, Dell, Ricoh, Yamaha and others.

51. **"Encryption"** is *the translation of data into a secret code. Encryption is the most effective way to achieve data security. To read an encrypted file, the recipient must have access to a secret key or password that enables the recipient to decrypt it. Unencrypted data is called plain text; encrypted data is referred to as cipher text. There are two main types of encryption: asymmetric encryption (also called public-key encryption) and symmetric encryption.

52. **"Fair Dealing"** is an exception to the exclusive right to reproduce copyright that declares that certain unauthorised uses of copyrighted material (for purposes of criticism, news, teaching, scholarship and research) are not infringements of copyright.

53. **"File server"** means *a computer or device on a network that manages network resources. For example, a file server is a computer and storage device dedicated to storing files. Any user on the network can store files on the server.

54. **"Fingerprinting"** is generally the term used for watermarking techniques that reveal the identity of the recipient of the protected content (the "recipient's mark").

55. **"Format shifting or Space shifting"** means *the act of copying digital content for use on a device other than the one for which it is was originally intended. Such as copying a music from a compact disc to an MP3 file for use on a portable MP3 player, or copying an MP3 file onto a compact disc for use in a digital audio player.

56. **"FTP"** is *short for File Transfer Protocol, the protocol for exchanging files over the Internet. FTP works in the same way as HTTP for transferring Web pages from a server to a user's browser and SMTP for transferring electronic mail across the Internet in that, like these technologies, FTP uses the Internet's TCP/IP protocols to enable data transfer. FTP is most commonly used to download a file from a server using the Internet or to upload a file to a server (e.g., uploading a Web page file to a server).

57. **"Gigabyte(s)"** means *2 to the 30th power (1,073,741,824) bytes. One gigabyte is equal to 1,024 megabytes. Gigabyte is often abbreviated as G or GB.

58. **"Hacker"** is *a slang term for a computer enthusiast, i.e., a person who enjoys learning programming languages and computer systems and can often be considered an expert on the subject(s). Among professional programmers, depending on how it is used, the term can be either complimentary or derogatory, although it is developing an increasingly derogatory connotation. The derogatory connotation of hacker is becoming more prominent and refers to individuals who gain unauthorised access to computer systems for the purpose of stealing and corrupting data. Hackers, themselves, maintain that the proper term for such individuals is a cracker.

59. **"Hard Drive"** is *the mechanism that reads and writes data on a hard disk. Hard disk drives (HDDs) for PCs generally have seek times of about 12 milliseconds or less. Many disk drives improve their performance through a technique called caching.

60. **"Hyperlink"** means *an element in an electronic document that links to another place in the same document or to an entirely different document. Typically, a user clicks on the hyperlink to follow the link. Hyperlinks are the most essential ingredient of all hypertext systems, including the World Wide Web.

61. **"ICANN"** is *short for Internet Corporation for Assigned Names and Numbers, a non-profit organisation that has assumed the responsibility for IP address space allocation, protocol parameter assignment, domain name system management and root server system management functions previously performed under U.S. Government contract.

62. **"IFPI"** is the International Federation of the Phonographic Industry is an organisation representing the international recording industry. It comprises a membership of 1400 record producers and distributors in 76 countries. It also has national groups in 46 countries. IFPI's International Secretariat is based in London

63. **"Indie or Independent"** means an Independent music label, unaffiliated with a major music label; used to describe some bands, small record companies, and the community that they form.

64. **"Internet"** means *a global network connecting millions of computers. More than 100 countries are linked into exchanges of data, news and opinions. Unlike online services, which are centrally controlled, the Internet is decentralized by design. Each Internet computer, called a host, is independent. Its operators can choose which Internet services to use and which local services to make available to the global Internet community. Remarkably, this anarchy by design works exceedingly well.

65. **"Interoperability"** means *the ability of software and hardware on different machines from different vendors to share data.

66. **"IP Address"** is *an identifier for a computer or device on a TCP/IP network. Networks using the TCP/IP protocol route messages based on the IP address of the destination. The format of an IP address is a 32-bit numeric address written as four numbers separated by

periods. Each number can be zero to 255. For example, 1.160.10.240 could be an IP address.

67. **"IPhone"** is an Internet-enabled smart phone developed by Apple. The iPhone combines mobile phone capabilities with a wireless Internet device, and an iPod into one product. The iPhone also includes a 3.5-inch multi-touch screen, rather than a keyboard, that can be manipulated by users with by two finger touches. The iPhone runs on a special version of Apple's Mac OS X operating system**.**

68. **"IPod"** is a small portable music player. Users can transfer songs to their iPod with their computer, iTunes, and the iPod software. Since the release of the Apple iPod in 2001, under the iPod brand Apple has released many variations of its product such as the iPod classic, iPod Touch, iPod Shuffle, iPod Mini, iPod Nano and several spin-off devices such as the iPod Photo.

69. **"IRC"** is *short for Internet Relay Chat, a chat system developed by Jarkko Oikarinen in Finland in the late 1980s. IRC has become very popular as more people get connected to the Internet because it enables people connected anywhere on the Internet to join in live discussions. Unlike older chat systems, IRC is not limited to just two participants.

70. **"ISO"** is *short for International Organisation for Standardisation. Note that ISO is not an acronym; instead, the name derives from the Greek word iso, which means equal. Founded in 1946, ISO is an international organisation composed of national standards bodies from over 75 countries. For example, ANSI (American National Standards Institute) is a member of ISO. ISO has defined a number of important computer standards, the most significant of which is perhaps OSI (Open Systems Interconnection), a standardised architecture for designing networks.

71. **"ISP"** is *short for Internet Service Provider (also Internet Access Provider). An ISP is a company that provides access to the Internet. For a monthly fee, the service provider gives a subscriber a software package, username, password and access phone number. Equipped with a modem, the subscriber can then log on to the Internet and browse the World Wide Web and USENET, and send and receive e-mail. In addition to serving individuals, ISPs also serve large companies, providing a direct connection from the company's networks to the Internet. ISPs themselves are connected to one another through Network Access Points (NAPs).

72. **"ISRC"** means International Standard Recording Code and is the international identification system for sound recordings and music video recordings. Each ISRC is a unique and permanent identifier for a specific recording which can be permanently encoded into a product as its digital fingerprint. Encoded ISRC provide the means to automatically identify recordings for royalty payments. The International Federation of the Phonographic Industry (IFPI) recommends that all music producers use ISRC.

73. **"ITunes"** is a media player by Apple Computer that is used for playing digital music or video files. iTunes is also used to purchase digital music files or subscribe to podcasts

through Apple's iTunes Music Store. The iTunes player is also an interface on the iPod and iPhone. The iTunes media player was launched in 2001.

74. **"JASRAC"** is the Japanese Society for Rights of Authors, Composers and Publishers. Since its establishment as Japan's sole music copyright administration society in 1939, JASRAC has protected the rights of copyright owners, has facilitated the utilisation of musical works, and has contributed to the growth and development of music culture.

75. **"Kilobyte(s)**" is 1,024 bytes, but it is often used loosely as a synonym for 1,000 bytes. For example, a computer that has 256K main memory can store approximately 256,000 bytes (or characters) in memory at one time.

76. **"Majors", "Major labels" or "Major Recording Labels"** means the multinational music corporations of Warner Music, EMI, Sony BMG, Universal Music Group which have subsidiaries in most countries.

77. **"Megabytes"** is a term *used to describe data storage, 1,048,576 (2 to the 20th power) bytes. Megabyte is frequently abbreviated as M or MB. When used to describe data transfer rates, as in MBPS, it refers to one million bytes.

78. **"Memory Stick(s)"** is a removable flash memory card format, launched by Sony in October 1998, and is also used in general to describe the whole family of Memory Sticks. In addition to the original Memory Stick, this family includes the Memory Stick PRO, a revision that allows greater maximum storage capacity and faster file transfer speeds; Memory Stick Duo, a small-form-factor version of the Memory Stick (including the PRO Duo); and the even smaller Memory Stick Micro (M2). In December 2006 Sony added the Memory Stick PRO-HG, a high speed variant of the PRO to be used in high definition still and video cameras.

79. **"Metatags"** are *special HTML tags that provide information about a Web page. Unlike normal HTML tags, metatags do not affect how the page is displayed. Instead, they provide information such as who created the page, how often it is updated, what the page is about, and which keywords represent the page's content. Many search engines use this information when building their indices.

80. **"MiniDisc"** means a small version of the usual five inch compact disc, but which uses a different method of encoding and replaying the signal.

81. **"MIPI"** is an acronym for Music Industry Piracy Investigation. A privately funded anti piracy unit of ARIA. MIPI is currently pursuing illegal file swappers – most notably P2P network KaZaA in Australia.

82. **"Motherboard"** means *the main circuit board of a microcomputer. The motherboard contains the connectors for attaching additional boards. Typically, the motherboard contains the CPU, BIOS, memory, mass storage interfaces, serial and parallel ports, expansion slots, and all the controllers required to control standard peripheral devices, such as the display screen, keyboard, and disk drive. Collectively, all these chips that reside on the motherboard are known as the motherboard's chipset.

83. **"MP3 decoder"** works by taking an MP3 audio file and decoding it into another format like a wave(.wav) file.

84. **"MP3 encoder"** converts (encodes) audio files into MP3 files.

85. **"MP3 player"** converts an MP3 audio file back to a standard audio format and sends it to a computer's sound card, which outputs them to headphones or speakers.

86. **"MP3"** is an acronym for the Motion Picture Experts Group, Audio Layer 3. It refers to an algorithm for file compression that shrinks audio files with only a small sacrifice in sound quality. A standard MP3 compression is at a 10:1 ratio, and yields a file that is about 4 MB for a three-minute track. It was originally developed for broadcast use. The algorithm was invented by a German research firm, the Fraunhofer Institute, in 1991.

87. **"MPAA"** means the Motion Picture Association of America. The MPAA and its international counterpart, the Motion Picture Association (MPA) serve as the voice and advocate of the American motion picture, home video and television industries, domestically through the MPAA and internationally through the MPA. On behalf of its member companies, the MPAA directs a comprehensive anti-piracy program

88. **"Nodes"** referred to *in networks, means a processing location. A node can be a computer or some other device, such as a printer. Every node has a unique network address, sometimes called a Data Link Control (DLC) address or Media Access Control (MAC) address.

89. **"P2P"** are usually free software downloads which enable users to search for songs by searching the hard drives of thousands of users who are online. Often referred to simply as Peer-to-Peer, or abbreviated P2P, it is a type of network in which each workstation has equivalent capabilities and responsibilities. This differs from client/server architectures, in which some computers are dedicated to serving the others. P2P networks are generally simpler, but they usually do not offer the same performance under heavy loads.

90. **"PC"** is *short for personal computer. The first personal computer was produced by IBM and was called the PC, and increasingly the term PC came to mean IBM or IBM-compatible personal computers, to the exclusion of other types of personal computers, such as Macintoshes. In recent years, the term PC has become more and more difficult to pin down. In general, though, it applies to any personal computer based on an Intel microprocessor, or on an Intel-compatible microprocessor. For nearly every other component, including the operating system, there are several options, all of which fall under the rubric of PC

91. **"PDA"** is *short for personal digital assistant, a handheld device that combines computing, telephone/fax, Internet and networking features. A typical PDA can function as a cellular phone, fax sender, Web browser and personal organiser. Unlike portable computers, most PDAs began as pen-based, using a stylus rather than a keyboard for input. This means that they also incorporated handwriting recognition features. Some PDAs can also react to voice input by using voice recognition technologies. PDAs of today are available in either a stylus or keyboard version.

92. **"Pirate website"** is a website containing material that infringes copyright.

93. **"Public key encryption/Asymmetric key encryption"** means *a cryptographic system that uses two keys - a public key known to everyone and a private or secret key known only to the recipient of the message. An important element to the public key system is that the public and private keys are related in such a way that only the public key can be used to encrypt messages and only the corresponding private key can be used to decrypt them. Moreover, it is virtually impossible to deduce the private key if you know the public key. Public-key systems, such as Pretty Good Privacy (PGP), are becoming popular for transmitting information via the Internet.

94. **"RAM"** is an *acronym for random access memory, a type of computer memory that can be accessed randomly; that is, any byte of memory can be accessed without touching the preceding bytes. RAM is the most common type of memory found in computers and other devices, such as printers.

95. **"Real time"** means *occurring immediately. The term is used to describe a number of different computer features. For example, real-time operating systems are systems that respond to input immediately. They are used for such tasks as navigation, in which the computer must react to a steady flow of new information without interruption. Most general-purpose operating systems are not real-time because they can take a few seconds, or even minutes, to react. Real time can also refer to events simulated by a computer at the same speed that they would occur in real life.

96. **"RIAA"** is an acronym for the Recording Industry Association of America. Founded in 1952, the RIAA represents more than 500 companies engaged in the creation, manufacturing and distribution of music. Their members represent approximately 90% of all legitimate sound recordings produced and sold in the United States. They include BMG Entertainment; EMI-Recorded Music; Sony Music Entertainment, Inc.; Universal Music Group; and Warner Music Group, in addition to smaller labels such as Rhino, Tommy Boy, HOLA Records, La Face and Zero House.

97. **"RIAJ"** means The Recording Industry Association of Japan (RIAJ) which contributes toward the healthy development of Japanese culture via various activities including the spread of recorded media and the enlightenment of copyright consciousness. Their objective is to contribute to the development of Japanese culture by means of enhancing harmony and conciliation across the recording industry, diffusion of high-quality recordings (pre-recorded CDs etc.), protection of record producers' right, and efforts to promote proper use of recordings.

98. **"Rip or Ripping"** means digitally extracting audio tracks from a CD (usually at high speeds) to a file on the computer.

99. **"RMI or ERMI"** means Rights Management Information which may be in electronic form. RMI is information attached to/embodied in a work which identifies the work/author/copyright owner or identifies some or all of the terms on which the work may be used.

100. **"Routers"** are devices that forward data packets along networks. A router is connected to at least two networks, commonly two LANs or WANs or a LAN and its ISP's network. Routers are located at gateways, the places where two or more networks connect. Routers use headers and forwarding tables to determine the best path for forwarding the packets, and they use protocols such as ICMP to communicate with each other and configure the best route between any two hosts. Very little filtering of data is done through routers.

101. **"SCMS"** means *Serial Copy Management System (SCMS), which permits first-generation digital-to-digital copies of pre-recorded music but prohibits serial copies of those copies. In exchange, the copyright holders waive the right to claim copyright infringement against consumers using audio recording devices in their homes for non-commercial use. The royalty requirements do not apply to computers as they are not considered digital audio recording devices.

102. **"SDMI"** is an acronym for the Secure Digital Music Initiative. This initiative is organizing the efforts of a consortium of worldwide recording industry and technology companies to develop an interoperable architecture and specification for digital music security.

103. **"Search engines"** *are programs that search documents for specified keywords and returns a list of the documents where the keywords were found. Although search engine is really a general class of programs, the term is often used to specifically describe systems like Alta Vista and Excite that enable users to search for documents on the World Wide Web and USENET news groups. Typically, a search engine works by sending out a spider to fetch as many documents as possible. Another program, called an indexer, then reads these documents and creates an index based on the words contained in each document. Each search engine uses a proprietary algorithm to create its indices such that, ideally, only meaningful results are returned for each query.

104. **"Secret key" encryption/"Symmetric key" encryption**" is *a type of encryption where the same key is used to encrypt and decrypt the message. This differs from asymmetric (or public-key) encryption, which uses one key to encrypt a message and another to decrypt the message.

105. **"Subscription networks" ***are providers that supply not only network access and a foundation suite of applications but also the complete user environment as a package for a monthly subscription.

106. **"TCPA"** means Trusted Computing Platform Alliance. The Trusted Computer Group (or TCPA before it was incorporated as TCG) is an alliance of Microsoft, Intel, IBM, HP and AMD which promotes a standard for a `more secure' PC. The Alliance was created for the purpose of providing a secure computing platform that prevented tampering with application software and to allow the software applications to communicate securely with their authors and with each other. The original motivation behind the Alliance was digital rights management (DRM).

107. **"Time-shifting"** means the process of "shifting time". The practice of recording media (such as a television show) onto video tape with a video recorder (VCR) for the purpose of playing the tape back later at a more convenient time for the viewer is known as time shifting. By law, with few exceptions, a person is not permitted to make an unauthorised copy of a copyrighted work like a television show. One exception to this is the concept of "fair dealing." Fair dealing allows copying and using copyrighted material for certain non-profit, educational and/or entertaining purposes.

108. **"TPM"** is a Technological Protection Measure for example encryption.

109. **"Trusted Systems"** refer to hardware and software that can be relied on to follow certain rules, called usage rights, that specify the cost and a series of terms and conditions under which a digital work can be used. The trusting party is the copyright owner whose rights are being protected by the software, not the user of the trusted system. A trusted system imposes security by granting specific services and fulfilling specific requests to some people and not others. Trusted systems can take different forms, such as trusted readers for viewing digital books, trusted players for playing audio and video recordings, trusted printers for making copies that contain labels ("watermarks") that denote copyright status, and trusted servers that sell digital works on the Internet.

110. **"Upload"** means (1) To transfer programs or data over a digital communications link from a smaller or peripheral client system to a larger or central host. A transfer in the other direction is called a download. (2) [jargon] To send data (especially large relatively standalone pieces of data like files and images) over the internet to a remote location.

111. **"USB Flash Drive"** is a small, portable flash memory card that plugs into a computer's USB port and functions as a portable hard drive. USB flash drives are touted as being easy-to-use as they are small enough to be carried in a pocket and can plug into any computer with a USB drive. USB flash drives have less storage capacity than an external hard drive, but they are smaller and more durable because they do not contain any internal moving parts. USB flash drives also are called thumb drives, jump drives, pen drives, key drives, tokens, or simply USB drives.

112. **"Wave file"** is the format for storing sound in files developed jointly by Microsoft and IBM. Support for WAV files was built into Windows 95 making it the de facto standard for sound on PCs. WAV sound files end with a.wav extension and can be played by nearly all Windows applications that support sound.

113. **"Web sites"** *are site (locations) on the World Wide Web. Each Web site contains a home page, which is the first document users see when they enter the site. The site might also contain additional documents and files. Each site is owned and managed by an individual, company or organisation

114. **"World Wide Web"** is *a system of Internet servers that support specially formatted documents. The documents are formatted in a markup language called HTML (HyperText Markup Language) that supports links to other documents, as well as

graphics, audio, and video files. This means a user can jump from one document to another simply by clicking on hot spots. Not all Internet servers are part of the World Wide Web. There are several applications called Web browsers that make it easy to access the World Wide Web. Two of the most popular being Netscape Navigator and Microsoft's Internet Explorer. The World Wide Web is not synonymous with the Internet.

115. **"Webcasting/Internet radio"** means *to use the Internet to broadcast live or delayed audio and/or video transmissions, much like traditional television and radio broadcasts. For example, a university may offer on-line courses in which the instructor Webcasts a pre-recorded or live lecture, or an enterprise may Webcast a press conference in lieu of or in addition to a conference call. Users typically must have the appropriate multimedia application in order to view a Webcast.

116. **"WMA"** is *short for Windows Media Audio, a Microsoft file format for encoding digital audio files similar to MP3 though can compress files at a higher rate than MP3. WMA files, which use the ".wma" file extension, can be of any size compressed to match many different connection speeds, or bandwidths.

*Definitions notated by an asterix * have been sourced either wholly or in part from the online technical dictionary webopedia located at www.webopedia.com

CHAPTER 1 – INTRODUCTION

1.1 FOREWORD

Not unlike two heavyweights going toe to toe in a ring, a battle continues in cyberspace. In one corner stands the powerful music recording industry, seeking to protect their current distribution channels and to control the dissemination of their intellectual property over the Internet. In the other corner, a group consisting of Internet civil libertarians, some independent and well known musical artists, software suppliers and distributors and the so called music pirates, stand ready to defend and exploit the internet as a means to quickly and freely distribute and download music.[20] The development of MP3 technology to compress digital music files has been the catalyst for the battle, with industry stakeholders willing to fight to the bitter end to control the distribution channels of music over the Internet.

Globally, a radical evaluation and re-assessment of the international music industry is taking place. The whole range of industry stakeholders including artists, consumers, independent record companies, publishers, royalty collecting agencies, hardware manufacturers, software suppliers, media intermediaries and music corporations are either directly or indirectly affected by the digital distribution of music over the internet. Furthermore, digital distribution of music is impacting legislation, business strategy, intellectual property rights, technology, corporate power, consumer habits and ethical issues, and the very nature of the creative process itself.

The difficulty the music industry has faced thus far is that it is not fighting just one opponent but many, as "Internet music piracy is an underground phenomenon and its scale is difficult to measure."[21] New illegitimate digital music sites constantly open, while existing ones move, evolve, change names or vanish entirely.[22] It appears the fight will never end for the music industry, as new opponents enter the ring to pick up where the last opponent fell. Therefore, continuing the battle royal.

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[20] Veravanich, P., *"Rio Grande: The MP3 Showdown at Highnoon in Cyberspace"*, 10 Fordham Intellectual Property, Media & Entertainment Law Journal 433, Winter 2000, p.435.
[21] Buhse, W., *"The Role of Digital Rights Management as a Solution for Market Uncertainties for Mobile Music"*, The International Journal of Media Management, Vol. 4, No. 3, 2002, p.172.
[22] Jolish, B., *"Scuttling the Music Pirate: Protecting Recordings in the Age of the Internet"*, 17 Entertainment and Sports Lawyer 9, Spring 1999, p.9.

This thesis will address the development, current legal environment and predicted future trends of Internet based music distribution. It has been written primarily as an examination of the effects that the Internet has had on the recording industry, particularly with regard to interference with the sale of traditionally recorded music. In addition to a legal analysis of Internet music distribution, this thesis attempts to provide perspectives from the recording industry, the business world and the consumer.

1.2 TOPIC IDENTIFICATION

The topic of this thesis was the culmination of seven years of researching the developments in technology and its effect on the music industry. The writer noticed that there was very little in the way of academic papers when research commenced on this thesis detailing any substantial research on the emerging area of Australian copyright law and music distribution via the Internet. However, as time passed so too academic commentary and papers became more readily available.

The music business is one of the few industries that struggled to grow profits in its transition to digital. The emergence of the Internet and communication technologies has had an impact on consumers of music and the way in which music is consumed, but the industry is yet to make a successful transition to a new digital business model[23]. The advent of digital technologies radically disrupts the nature of the traditional business model which particularly affects the music industry. Digital media downloads, mobile music streams, music flat rates, peer to peer networks and the rise of free economics on the Internet all foster disintermediation and are partly responsible for the reduction in CD sales in recent years.[24]

The rapid change in technology with the increase in broadband bandwidth[25] and the Internet meant changes in the area of the writer's topic occurred extremely quickly. Whilst MP3 technology was a breakthrough which led to the ability to save, exchange and copy files quickly online many other factors such as the speed of internet exchanges from increased bandwidth

[23] Freedman, D., *"Managing Pirate Culture: Corporate responses to peer-to-peer networking"*, International Journal on Media Management, 1424-1250, Vol. 5, No. 3, 2003.
[24] Anderson, C., *The Long Tail: Why the Future of Business Is Selling Less of More,* New York, Hyperion Books, 2006.
[25] See Glossary of Terms for definition of "Broadband" and "Bandwidth" at p.14 of this thesis.

permitting larger file downloads, the increase in the use and marketing of the internet, the development of other types of music file formats including music video files have permitted many different types of file formats to be exchanged, saved and copied. Significant amendments to copyright legislation and landmark case decisions in Australia have also occurred during the time of research.

The latest sales figures show that global recorded music sales went down 15.4% in 2008.[26] Potential causes of the current decline in CD sales are the negative economic environment, incompatibility between music formats and substitution with other forms of internet piracy.[27] The International Federation of the Phonographic Industry ("IFPI")[28] estimates that over 40 billion files were illegally shared in 2008.[29] Besides the discussion about file sharing and whether it is responsible for dropping CD sales, new technologies can also be seen as an opportunity for the industry. These same technologies can be used to prevent digital piracy when governments and Internet Service Providers cooperate closely.[30]

In an environment dominated by the availability of free and unpaid content, the music industry is at the forefront of dealing with problems facing ownership and control of music.[31] The business was the first sector to experience the shift to digital technologies i.e. vinyl to CD. Legal regulations are already altered with amendments to the *Copyright Act 1968* (Cth) and extending protection for intellectual property to digital materials.[32] Other initiatives, such as fair dealing defences and limited exceptions to copyright infringement have been preferred. This is reflected in the growth of digital music sales and development of new strategies over the last few years. Despite the strong rise in digital sales, they are not compensating the losses for the industry and

[26] Reuters, *"Global music sales keep falling, pretty much everywhere"*, Reuters, 22 April 2009, located at http://blogs.reuters.com/mediafile/2009/04/22/global-music-sales-keep-falling-pretty-much-everywhere/ (accessed on 24 April 2009).
[27] Peitz, M., and Waelbrock, P., *"Piracy of Digital Products: A Critical Review of the Economics Literature"*, CESIfo Working Paper 1071, November 2003, p.18.
[28] For further details on "IFPI" see Glossary of Terms at p.20 of this thesis.
[29] IFPI, *Digital Music Report 2009*, located at http://www.ifpi.org/content/library/dmr2009-real.pdf (accessed on 10 February 2009), p.22.
[30] Ibid.
[31] Thompson, C., *"How Can I Swap Safely"*, Wired Magazine, 14 January 2006, located at http://www.wired.com/wired/archive/14.01/start.html?pg=11 (accessed on 26 June 2006).
[32] Peitz, M., and Waelbrock, P., *"Why the Music Industry May Gain From Free Downloading: The Role of Sampling",* International Journal of Industrial Organization, Vol.24, Issue 5, September 2006, pp.907-913.

copyright problems still persist and attempts, such as CD Copy Protection Systems or Digital Rights Management, still have not solved the issues.

Since the well publicised *A&M Records Inc v. Napster Inc*[33] (Napster) decision in the US it was conceivable that similar actions were waiting to occur in Australia. The thesis is an examination of the position in Australia from that time until 31 December 2008 inclusive.

The topic "*A Battle Royal: Digital Music Piracy v. The Music Industry. An Assessment of Australian Copyright Law*" was postulated at the time when the music industry's very existence was being threatened by music pirates. The period 1999-2007 was a very significant time for the music industry. With it came significant court room battles and constant amendments to Australian copyright law. In this context, the writer is of the view that significant research and analysis of the technology, the music industry and effectiveness of Australian copyright law is now of great importance.

1.3 AIM OF THE RESEARCH

The aim of the research is to examine the following hypothesis:

Hypothesis: Amendments to the Australian Copyright Act as a result of advancements in digital distribution technology and the bilateral FTA in 2004 with the US have significantly altered the balance between copyright owners and copyright users. The shift in favour of copyright owners has led to significant control over content via Digital Rights Management ("DRM's")[34] and Technological Protection Measures ("TPM's")[35] stymieing innovation, creativity, exchange and participation online but has significantly failed to make copyright law more effective.

[33] *A&M Records Inc v. Napster Inc* 114 F. Supp. 2d 896 (N.D. Cal. 2000). aff'd in part rev'd in part, 239 F.3d 1004 (9th Cir. 2001); aff'd 284 F.3d 1091 (9th Cir. 2001).
[34] See definition of "DRM" in the Glossary of Terms at p.18 of this thesis.
[35] For definition of TPM see Glossary of Terms at p.26 of this thesis.

1.4 METHODOLOGY

The research approach of this thesis is probably best described as a descriptive and qualitative research study. According to Yin a case study is an "inquiry that investigates a contemporary phenomenon within its real-life context."[36] In the context of this thesis and its stated objectives, it was intended that the thesis be a practical account of the development of digital music distribution on the internet; how the recording industry and the Australian Government reacted to it; how the Australian Copyright law was amended and how those amendments were interpreted. The aim of this thesis was not a theoretical reconsideration of copyright in the internet environment or the future of copyright in that environment, but more a practical account of developments that occurred during the relevant years of 2000 to 2008.

In order to examine the hypothesis and its stated objectives, the writer embarks upon an analysis in Chapter 2 of the relevant literature pertaining to both copyright theory exploring the quest to find a balance in copyright law between copyright owners and users of their works and the literature relating to music piracy, music copyright and emerging business models. Chapter 3 describes the development of technology and how that has impacted the music industry. A chronological history of different stages and eras of technological advancement in conjunction with the birth of the Internet are discussed and the different digital file formats are introduced. Chapter 4 examines at the recording industry history from its earliest inceptions to the wealthy conglomerates they have become and their motive for profit. The chapter also considers the change from the traditional business model to the digital distribution model and the industry's difficulty to adapt. The relationships between peer to peer technology and piracy are also discussed. Chapter 5 contains an historical case analysis of judgments both in Australia and internationally to illustrate the technological issues faced by the judiciary when interpreting copyright law.

Chapter 6 provide an in depth and sound analysis of Australian copyright law and explores the legal and judicial constraints in adapting to new forms of technology and how they may be interpreted in Australian copyright law. Direct copyright liability, authorisation liability, TPMs and circumvention, Carriage Service Provider ("CSP") liability and defences for fair dealing and

[36] Yin, R., *Case study research: Design and methods,* 3rd Edition, Vol. 5, USA, Sage Publications, 2003, p.13.

limited exceptions to copyright infringement are also discussed. Chapter 7 discusses the technological protections and locks that digital content providers have employed to protect digitised content from traditionally permissible uses of physical/analogue content for which they have been afforded extra legal protection. Chapter 8 explores new technology that emerged from the digital battle between copyright owners and peer to peer software providers and individual consumers and different digital distribution models which emerged as a result. Furthermore, issues of price and problems with the legitimate services are discussed.

Chapter 9 analyses a small pilot study undertaken by the writer consisting of interviews gauging the opinions of participants in the music industry and consumers. The study is merely used to gain an insight into the effect that digital music technology and peer to peer has had on the recording industry. Chapter 10 discusses whether further legislative and judicial reforms to the Australian copyright landscape are necessary to balance the competing interests of rewarding creators of copyrighted works without stifling the creation of new content and whether the Australian copyright law as amended is effective. Chapter 11 summarises the technological developments, the recording industries reaction to the technology, the legal and judicial reactions to digital music distribution and the business models that emerged as a result.

1.5 ANALYSIS

Although the thesis was a practical account tracing the developments in digital music distribution on the internet, how the recording industry and the Australian Government reacted to it and how the Australian Copyright law was amended as a result, certain observations and trends were identified which are discussed in detail in the relevant chapters of this thesis. A summary of the analysis of these trends is provided below:

1. The advent of new digital compression technology and digital music distribution technology made it possible to disseminate digital music quickly and easily amongst file sharers;

2. The recording industry was reluctant to adapt from the traditional model of music delivery to a digital model of music distribution. Their inflexibility created a widening gap between the application of innovation and the consolidation of the copyright legal status of these technologies, thus creating legal delay and legal uncertainty. This resulted in the copyright

balance shifting more in favour of consumers during this period as many digital music file sharers were 'free riding' on the creative endeavours of copyright owners;

3. The recording industry sparked into action with the lobbying of government and law makers and simultaneously brought heavy handed litigious responses to technology providers and individuals by amassing numerous law suits during the years 2000-2008;

4. Many of the initial law suits brought by the recording industry were met with mixed results and criticism so that further legislation was enacted to protect these industries.

5. In an effort to curtail the gap between innovation and legal regulation, copyright owners developed TPMs and DRM to lock up digital content to curb digital file sharing. This was met with issues relating to interoperability between proprietary formats and criticism from consumers. The development of these technologies along with legal regulation swayed the balance of copyright back to Copyright owners and away from copyright users.

6. The adoption of amendments to the copyright legislation occurred quickly without significant public comment or debate. The recording industry were achieving litigious results and creating a restriction on the supply of digital music in the market place, whilst attempting to substitute their own proprietary business models. These business models failed due to a lack of co-operation amongst competing labels and consumers' concerns regarding choice, price and interoperability issues amongst hardware manufacturers.

7. Fair dealing and limited exceptions to copyright infringement were introduced but these were prescriptive and technologically specific, maintaining the copyright balance in favour of copyright owners.

8. Success of the technological convergence models such as the iPod/iTunes model became the accepted method of purchasing music at relatively acceptable costs, yet consumers were still plagued by interoperability issues. More legitimate digital music retailers entered the market offering different business models to distribute digital music. In order to appease consumers and under pressure to prevent continuing significant losses to the music industry, the recording industry agreed to provide DRM-free digital music to consumers.

9. The recording industry's litigious efforts to curtail piracy along with targeted education platforms and more reliable CSP assistance, mean it is in a more settled environment with a majority of users preferring legitimate methods to obtain their music.

10. The pilot study undertaken illustrated that industry participants and users concurred that consumers would dictate the use of the technology. Most industry participants are not in favour of free riding but consumers would be prepared to accept legitimate business models if they are reliable, cheap and provide choice, reliability and quality.

11. Considerable regulation adopted in the Copyright Act was technologically specific and prescriptive meaning that the Copyright Act will be underutilised or rarely enforced. If the significant regulation is enforced then this leaves potentially many Australians vulnerable to civil and criminal sanctions. Amendments to the fair dealing provisions and limited exceptions to copyright infringement that were introduced did not go far enough to strike a balance between copyright owners' rights to exploit their works and copyright users' rights to access those works and ultimately leaves an ineffective copyright regime.

1.6 FINDINGS

The practical account of the developments in technology, law and commercial business models and of the trends during the research period between 2000 to 2008 revealed a full circle from industry rejection of alternative distribution models to final adoption of commercial distribution systems adapted from those models.

Copyright owners have now taken a practical approach, improving online music distribution and meeting consumer demands rather than utilising technologies that control and restrict content to an excessive degree. However, in the meantime the law, although it went full circle too, has been left technologically specific in order to capture certain digital technologies and is still arguably too closely aligned to the music industries' interests in stamping out unauthorised file sharing. This leaves the Copyright Act ill-adapted to present conditions on the Internet.

In essence a natural balance and settling between copyright owners and copyright users took place due more to market and consumer demands rather than heavy handed copyright

enforcement and amendments (although this was a catalyst).[37] The natural balance the writer is referring to is DRM free music for a relatively small price per download.

[37] Sohn, G., *"Don't Mess with Success: Government Technology Mandates and the Marketplace for Online Content"*, 5 J. On Telecomm. & High Tech. L., Vol. 73, 2006, p.75.

CHAPTER 2 – LITERATURE REVIEW

2.1 EVALUATING THE FIGHT

In order to assess fully the hypothesis of this thesis, this part focuses on the relevant academic literature relating to copyright theory and digital music.

2.1.1 Literature Review relating to Copyright Theory – Striking a balance...

Lessig suggests that Copyright law has evolved from being just a 'restriction' to a 'bundle of rights' and has now come to be recognised as a 'theory'.[38] In recent years, growing academic literature on copyright theory continues to address the issue of whether an adequate balance has been struck between copyright owners and copyright users' interests.

Should copyright law lock down music to protect the financial interests of rights-holders? Or, should it promote broad access to, and use of, intellectual property? These questions are at the core of the growing public and academic debate over the need for fair and balanced copyright law. The central question of copyright law is how best to strike a balance between the needs of users for reasonable access and use of copyrighted works, and the needs of creators to be protected from unjust misappropriation.

At the foundation of copyright theory is the notion that copyright law was derived from the monopoly privileges enjoyed by the Stationers Company of England and the British Statute of Anne 1709.[39] As Ku suggests in his paper, "originally, this monopoly privilege was used to suppress competition and free expression."[40] The British Statute of Anne 1709, which awarded copyright protection to books, acted as a blueprint for the extension of copyright to new types of subject matter such as engravings, sculptures, paintings, drawings and photographs during the 18th and 19th Centuries.

[38] Lessig, L., *Free Culture*, Penguin Books, New York, 2003, p.72.
[39] *Statute of Anne 1709*.
[40] Ku, R., *"Promoting Diverse Cultural Expression: Lessons from the US Copyright Wars"*, 2 Asian J. WTO & Int'l Health L & Pol'y 369, 2007, p.373.

In Australia, s.51(xviii) of the *Commonwealth Constitution 1900* (Cth) empowers the Federal Government "...to make laws for the peace, order, and good government of the Commonwealth with respect to, inter alia, copyright, patents of inventions and designs, and trademarks".[41] The Federal Government chose to promote the progress of protecting literary, musical, artistic and dramatic works and other subject matter through the law of copyright which culminated in the adoption of the Australian *Copyright Acts* of 1905, 1912 and in its current enactment in 1968 (current amendments included) and other International Treaties.[42]

The Australian *Copyright Act 1968* (Cth) grants authors certain exclusive rights in their works including, as the name describes, the right to copy. Ku suggests that copyright law represents a "bargain between the public and the author in which the public grants authors the right to certain exclusive rights in exchange for access to their creations. This access takes two forms: access to the work during the period of exclusive rights on terms generally dictated by the author; and unfettered access to the work after those exclusive rights have expired."[43]

Gordon in her paper notes that, "...if the creators of intellectual productions were given no rights to control the use made of their works, they might receive fewer revenues and thus would lack an appropriate level of incentive to create."[44] Likewise, "...fewer resources would be devoted to intellectual productions than their social merit would warrant."[45] Unauthorised copying, therefore, may reduce the incentives for creating and distributing works of cultural expression.

Conversely, Cohen argues in her paper that one of the hallmarks of creativity is "not knowing in advance"[46] what one is going to create, or what inputs will be, or from where the inspiration will come. The process of moving from not knowing to creating involves bumping around in one's culture – running across things, absorbing them, and manipulating them. Cohen calls this

[41] Section 51(xviii) of the *Commonwealth of Australia Constitution 1900* (Cth).
[42] *Berne Convention for the Protection of Literary and Artistic works 1886*, *WIPO Copyright Treaty 1996* ; *WIPO Performances and Phonograms Treaty 1996, Australia - US Free Trade Agreement 2004.*
[43] Ku, R., op.cit., p.374.
[44] Gordon, W., *"Fair Use as Market Failure: A Structural and Economic Analysis of the Betamax Case and its Predecessors"*, 82 Colum. L. Rev. 1600, 1982, p.1611.
[45] Ibid.
[46] Cohen, J., *"Creativity and Culture in Copyright Theory"*, 40 UC Davis L. Rev. 1151, 2007, p.1178.

"working through culture"[47] and explains that it "involves physical interactions among embodied users and material artefacts".[48]

Cohen concludes that creativity requires physical access to cultural artefacts and some freedom to manipulate and play around with them in a context that allows for serendipity.[49] A creator may not know in advance what its raw materials are going to be – as an inflexible permission-based copyright system might require. Cohen's theory of creativity thus lends support to the argument that "overly rigid control of access to and manipulation of cultural goods stifles artistic and cultural innovation."[50]

The divergence of thought amongst copyright academics and theorists is the reason for the growth in literature postulating numerous and distinct theories. It is a difficult proposition to analyse copyright theory as numerous academics propose different theories in addressing the quest for a balance in the copyright regime.

Wechsler proposes in her paper that the word "balance" in copyright law has become a buzzword over the last decade due to the surge of research amongst legal and economic theorists with their quest to find such a balance.[51] According to Wechsler there are various definitions of the term 'balance" depending on the field to which it is applied.[52] As Wechsler suggests that what these definitions all have in common is that they "describe a desirable equilibrium between at least two opposing forces."[53] Wechsler notes that the quest for a 'balance' in copyright law is becoming an emerging paradigm for theorists.[54] Wechsler concludes that in light of the well-recognised imbalances of copyright law it is well accepted that the quest for balance is a worthwhile

[47] Ibid, p.1179.
[48] Ibid, p.1180.
[49] Ibid, p.1192.
[50] Ibid, p.1193.
[51] Wechsler, A., *"The Quest for Balance in Intellectual Property Law: An Emerging Paradigm or a Fad?"*, ATRIP Essay Competition 2009, located at http://www.atrip.org/upload/files/essays/winners2009/Andrea%20Wechsler.pdf (accessed on 4 June 2009), p.1.
[52] Ibid, p.2.
[53] Ibid.
[54] Ibid, p.13.

undertaking while there is less so an understanding of what balance theorists should be searching for.[55]

A favoured approach by a majority of academics like Carrier has been to treat copyright like tangible property.[56] This has been rejected by Fisher as he argues that copyright has never been treated like tangible property and what copyright holders have enjoyed under the law is more closely analogous to the 'contract rule' rather than the 'property rule" because copyright is limited and does not last forever.[57] Seetoo elaborates this argument by acknowledging that the existence of fair dealing principles and limited exceptions "allows people to take limited portions of others' copyrighted works for some qualified uses without prior permission."[58] Seetoo concludes that "this was purposefully designed to address the tension between the public interest in increasing the storehouse of knowledge and the author's interest in obtaining compensation to secure pecuniary returns for his efforts."[59]

Zemer in his paper addressed several copyright theories proposed by scholars and academics in relation to copyright theory in order to find a balance between competing interests.[60] Zemer analysed in particular: the utilitarianism; labour based justifications; the personhood approach; social and institutional planning; traditional proprietarianism; and authorial construction theories.[61] The writer does not intend to describe each of these theories as it would detract from the purpose of this thesis and its stated objectives but rather notes that they exist.

Zemer concluded that existing copyright theories do not provide sufficient philosophical clarity.[62] Zemer's justification for his conclusion is based on the following three reasons. Firstly on the basis that each of the theories share common elements which blur the boundaries between them.[63] Second, scholars do not agree on any given theory and seem to combine the various theoretical patterns to

[55] Ibid, p.14.
[56] Carrier, M., *"Cabining Intellectual Property through a Property Paradigm"*, 54 Duke L.J. 1, 2004-2005, p.82.
[57] Fisher, W., *Promises to Keep: Technology, Law, and the Future of Entertainment*, Stanford University Press, 2004, pp.8-9.
[58] Seetoo, C., *"Can Peer-to-Peer Internet Broadcast Technology Give Fans another Chance - Peer-to-Peer Streaming Technology and its Impact"*, J.L. Tech. & Pol'y 369, 2007, p.387.
[59] Ibid.
[60] Zemer, L., *"On the Value of Copyright Theory"*, 1 Intell. Prop. Q. 55, 2006, pp.56-57.
[61] Ibid.
[62] Ibid, p.76.
[63] Ibid, p.77.

develop new themes.[64] Finally, copyright theories are not designed to address foundational arguments about private property or wider philosophical issues.[65]

Zemer argues that scholars and practitioners draw elements from various theories and randomly take the parts that seem applicable for a given situation and proposes that an acceptable theory should be pluralistic in its foundations.[66] Zemer states that even if a pluralistic approach is favoured then one should not let misconceptions of ownership and control override the social needs of the public.[67]

Fisher expresses various misgivings with regards to the capacity of theories to contribute to the practical evolution of copyright law, but then asserts:

> *"That conclusion, however, does not imply that the theories have no practical use. In two respects, I suggest, they retain considerable value. First, while they have failed to make good on their promises to provide comprehensive prescriptions concerning the ideal shape of intellectual property law, they can help identify non-obvious attractive resolutions of particular problems. Second, they can foster valuable conversations among the various participants in the lawmaking process…through continued conversations among scholars, legislators, judges, litigants, lobbyists, and the public at large, there may lie some hope of addressing the inadequacies of the existing theories...Only by continuing to discuss…can we hope to make progress."*[68]

Menell expresses a more favourable approach towards the contribution of theories to the development of the copyright regime.[69] He identifies the necessity to extend the reach of current theories in copyright and recognises the important role theories play in providing fresh insights 'for the evolution of new privately and socially constructed institutions to develop effective governance structures.'[70] Like any other theory, discrepancies between the various copyright theories exist. The important message emanating from new inquiries into copyright theory is that theory and practice has to be balanced. Theory cannot develop in isolation from practice as it would become a discipline with no destiny and without any impact on the evolution of the law.[71]

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[64] Ibid.
[65] Ibid.
[66] Ibid.
[67] Ibid.
[68] Fisher, W., *"Theories of intellectual property"*, Harvard Cyberlaw, 2000, located at http://cyber.law.harvard.edu/people/tfisher/iptheory.pdf (accessed on 10 January 2008), p.37.
[69] Menell, *"Intellectual Property: General Theories"*, Encyclopaedia of Law and Economics, 2000, located at http://www.dklevine.org/archive/ittheory.pdf (accessed on 7 February 2008), p.163.
[70] Ibid.
[71] Zemer, op.cit.

According to Ku copyright law was created to restore a balance (disrupted by the development of printing press monopolies under the Statute of Anne) between the economic interests of creators and mass distributors so that the public would have access to new cultural works.[72] Monkman supports this proposition and notes that as corporations (creators and distributors of copyright works) grow larger and wealthier, one views a shift of power as they exert more influence on government seeking indulgences that favour their business goals demanding that copyright laws be skewed in their favour.[73] However, these opponents to a balanced copyright law have not articulated a satisfactory rationale as to why Australia should make a historical deviation from the principles of balanced copyright.

Innovation and creativity are best served through a Copyright Act that balances the rights of creators, owners, and users. Cohen argues that "creators require protection from unjust appropriation and the ability to earn from the works they produce, while users require the ability to access these works and, when reasonable, use them for the basis of the creation of new works."[74]

Cohen suggests that innovation is, by its very nature, the result of building upon the works of others, so blocking access stifles the innovative process.[75] Copyright laws should establish an incentive framework that produces an environment where creators are able to create new things, but does not engender a system where the owners and distributors of copyrighted works maintain unnecessarily long-terms of control over their use.

Alfano in his paper suggests that knowledge is at the heart of a dynamic and productive community and must not be controlled by owners for exceedingly long periods of time if the potential for competition and innovation is to be maximised. The shorter the legally protected

[72] Ku, R., op.cit.
[73] Monkman, S., *"Corporate Erosion of Fair Use: Global Copyright Law Regarding File Sharing"*, 6 Asper Rev. Int'l Bus. & Trade L. 265, 2006, p.284; See also Ondrasik, B., *"Death of the 'Free Internet Myth'"*, Masaryk U. J.L. & Tech 75, 2007, p.81.
[74] Cohen, J., op.cit., p.1193.
[75] Ibid.

monopoly on knowledge, the greater the incentive that exists to invest in the production of new material. However this must be balanced with the need of the creator to make a living.[76]

Without a fair balance between the interests of creators, users, and owners there is reduced incentive for investment in the creation of new works and knowledge. Investment in new products and innovation by creators requires that they benefit financially from their works. However, if ownership rights are too severe, they will greatly restrict the ability of the Australian public to access and make use of these works for fair and reasonable purposes, ones which inspire creativity and future innovation.

Wadhwa notes that the history of copyright law has been a process of balance. This continual shift in the scope of copyright law, including both the rights granted to copyright owners and the defences available to copyright user's has been necessitated by the advancement of technology.[77]

Copyright law is greatly influenced by technological change.[78] Whenever technological advances create new means of making copies or communicating copyrighted works, difficult questions arise as to how the boundaries should be drawn around new uses of content created by the new technology.[79] The historic tendency of copyright law is to respond to new technological developments by adjusting the scope of copyright law.[80]

Depoorter in his paper suggested an interesting observation in relation to copyright theory and technology. He suggests that two paradigms exist: the political-economy model and the technological paradigm.[81] "In the political-economy model, the death of copyright law is caused by legislative and judicial capture by copyright owners, which negates the original, true meaning of copyright law. The technological paradigm argues that digital technology has rendered

[76] Alfano, K., *"Copyright in Exile: Restoring the Original Parameters of Exclusive Reproduction"*, 11 J. Tech. L & Pol'y 215, 2006, p. 216.
[77] Wadhwa, A., "*Overcoming the Challenges Posted by Technology to Traditional Copyright Law: From Betamax to Grokster"*, Journal of Intellectual Property Law & Practice, Vol. 2, No. 7, 2007, p.487.
[78] Allen, A., *"Battling in the Name of Balance: Evaluating Solutions to Copyright Conflict in Viacom International v. Youtube"*, Byu L. Rev. 1023, 2007, p.1023.
[79] Ibid.
[80] Ibid.
[81] Depoorter, B., *"Technology and Uncertainty: The Shaping Effect on Copyright Law"*, 157 U. Pa. L. Rev. 1831, 2008-2009, p.1833.

copyright law hopelessly obsolete or, from the copyright owner's viewpoint dangerously ineffective."[82]

Depoorter argues that with every court decision, the academic debate over the proper adjustment of copyright law becomes further polarised.[83] He argues at one end, we find the Copyright owners (entertainment industry); while on the other end we have consumers, scholars and civil libertarians. The former arguing that "copyright owners will not survive (in order to protect their revenue) unless intellectual property laws are strengthened to meet the threat of new technologies and the widespread dissemination of their works over the Internet." The latter maintain that "new technology presents opportunities for unprecedented cultural exchange, suggesting that existing legal and institutional arrangements reduce economic welfare by strangling technological progress."[84]

Good public policy should ensure that digital technology protects the legitimate interests of artists, writers, musicians, software developers and other creators, while preventing copyright owners from using new technologies to restrict reasonable access to, and use of information.[85]

With the development of technologies that facilitate the high-speed, low-cost transfer of digital information, there has come a massive increase in the speed of research and innovation.[86] Despite the clear benefits of these developments, some Copyright owners have proposed to use technology to prevent some communications and lock down knowledge in its digital form in order to maximise their ability to control and to profit from copyrighted works.[87] Copyright law was initially developed in response to technological advancements in the mass production of intellectual and creative work.[88] A strikingly similar situation to the one we face today.

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[82] Ibid.
[83] Ibid, p.1834.
[84] Ibid.
[85] Dimock R., and Punniyamoorthy, S., *"Digital Technology: It's Impact on Copyright Law and Practice in North America"*, Journal of Intellectual Property Law & Practice, Vol. 1, Issue 13, 2006, p.839.
[86] Natke, J., *"Collapsing Copyright Divisibility: A Proposal for Situational or Medium Specific Indivisibility"*, Mich. St. L. Rev. 483, 2007, pp.487-488.
[87] Murck, P., *"Waste Content: Rebalancing Copyright Law to Enable Markets of Abundance"*, 16 Alb. L.J. Sci. & Tech. 383, 2006, p.410.
[88] Bagley, A., and Brown, J., *"The Broadcast Flag: Compatible with Copyright Law & Incompatible with Digital Media Consumers"*, 47 IDEA 607, 2006-2007, p.607.

Truly innovative ideas develop in an environment that fosters creativity and allows citizens to build on the creations of those that came before them.[89] However, it is also important to note that ideas are only turned into great works when the economic environment is supportive of creators so that they may transform those ideas into something real.[90]

Government policy makers should not overreact by developing restrictive copyright legislation that will inevitably hinder the development of new and innovative products and works.[91] Australia needs to ensure that creators can be remunerated for the work they produce as an incentive to create further works, while at the same time ensuring the public has the ability to enjoy these works and create new ideas by building upon the ideas of others.

Only with such a copyright framework will Australia remain competitive in the global digital economy. Incentives created by a coherent copyright framework can only go so far in spurring on the production of new and innovative works.

2.1.2 Literature Review relating to Music Piracy and Effective Business Models

Not unlike the growth in literature on copyright theory, a growing literature on music copyright, piracy and the search for new effective business models has also emerged.

A key publication in the field of cultural aspects of the industry is the book published by Frith, who examines popular music in the age of technological change and who raises the question of music ownership determination.[92] Complementary to the cultural dimensions, Simpson explores the structure of the entire music industry.[93] Vogel and Hull elaborate on the framework by looking at the economic and financial perspectives. Vogel and Hull identify three main revenue streams for the economic model: music publishing, live performances and the sale of recordings.[94] Giving an insight into the music industry, the Major labels dominate the music

[89] Cohen, J., op.cit., p.1192.
[90] Ibid.
[91] Tehranian, J., *"Infringement Nation: Copyright Reform and the Law/Norm Gap"*, Utah L. Rev. 537, 2007, p.537.
[92] Frith, S., *Music and Copyright*, 2nd Edition. Edinburgh University Press, 2004.
[93] Simpson, S., *Music Business*, 3rd Edition, NSW, Omnibus Press, 2006.
[94] Vogel, H., *Entertainment Industry Economics: A Guide for Financial Analysis,* 6th Edition, Cambridge University Press, 2004; See also Hull, G., *The Recording Industry*, USA, Routledge, 2004.

market with a combined market share of 74.2 percent of the global recorded music sales[95] and the Independent labels comprise the rest of the global pre-recorded music market with global retail sales of recorded music totalling nearly 30 billion in 2007.[96]

The Internet has drastically altered the production, distribution and consumption of music.[97] This is confirmed by Shuker, who takes an early view onto the impact of technologies including online delivery and debates about MP3 and file sharing platforms.[98] Early recommendations to the music industry to develop digital music platforms were ignored and thus the industry has been playing catch up ever since. As a result, companies are moving towards more diversified business strategies and seeking new revenue streams such as ringtones and merchandising to deal with the industry's expanded ecology.[99]

This development is rounded off by Passman who gives information on the industry's major changes in response to today's rapid technological advances and uncertain economy.[100] Evidence from a recent report by Pfeiffer suggests that music companies should forget about digital rights management in the short term as it is not going to last.[101] The trends of the market further point towards the problem of declining physical sales, which is connected to illegal downloading, as well as to substitution effects through music available on popular websites such as MySpace and YouTube.[102] These facts are complemented by the conclusion that a new generation of music subscription services, social networking sites and new licensing channels are emerging. Despite the fact that the sector is still overshadowed by a huge amount of unlicensed music distributed online, music companies embrace new revenue models, offering consumers

[95] Sabbagh, D., "*Tough year leaves EMI trailing the music Majors",* Times Online, 4 April 2008, located at http://business.timesonline.co.uk/tol/business/industry_sectors/media/article3683398.ece (accessed on 19 November 2008).
[96] IFPI, *Digital Music Report 2008*, located at http://www.ifpi.org/content/library/dmr2008.pdf (accessed on 21 November 2008).
[97] Molteni, L., and Ordanini, A., *"Consumption Patterns, Digital technology and Music downloading"*, Long Range Planning, No. 36, 2003, pp.389-406.
[98] Shuker, R., *Popular Music: The Key Concepts*, Routledge, 2001.
[99] Leyshon, A., Webb, P., French, S., Thrift, N., and Crewe, L., *"On the Reproduction of the Music Industry after the Internet"*, *Media, Culture, and Society*, Vol. 27, 2005, pp.177-209.
[100] Passman, D., *All You Need to Know About the Music Business*, New York, Free Press, 2003.
[101] Pfeiffer Consulting Report, *"Why the Audio CD is Dying...And What Will Replace It"*, located at http://pfeifferreport.com/trends/Pfeiffer_Music_Rep.pdf, 2007 (accessed 24 December 2008).
[102] Ibid.

more choice, based on industry figures presented by IFPI,[103] which is acting as an umbrella organisation for the music industry.

Illegal music services like Napster and KaZaA had been around long before a choice of music catalogue was legally provided. As a result, the well known anomaly of the digital music world was reinforced i.e. legal services constantly play catch-up with illegal services, and the enforcement of copyright persistently lags advances in technology.

Facing these problems, the recording industry is trying to protect their intellectual property rights by lobbying legislators and law enforcers to make individuals liable for any copying they do.[104] The current issues and perspectives on copyright law are comprised in the work of Towse who is a key author in the field of economics and copyright.[105] Towse suggests the music industry must look to market-based incentives, rather than relying on the strength of copyright protection to survive the digital era.[106] Despite the increasing strength of copyright protection, unauthorised use of music is growing.

2.1.3 Contribution of this Study

This thesis is intended as a practical account tracing the developments in digital music distribution on the internet; how the recording industry and the Australian Government reacted to it and how the Australian Copyright law was amended as a result, certain observations and trends were identified. The contribution of this thesis is to provide an overall account of the developments in these areas as it relates to the Australian law and industry. From the study certain trends were identified and reported.

[103] IFPI, *Digital Music Report 2009*, op.cit.
[104] Leung, T., *"Misconceptions, Miscalculations, and Mistakes: P2P, China, and Copyright"*, 30 Hastings Int'l & Comp. L. Rev. 151, 2006-2007, p.155.
[105] Towse, R., *Copyright in the Cultural Industries*, Cheltenham, Edward Elgar Publishing, 2002.
[106] Towse, R., *A Handbook of Cultural Economics*, Cheltenham, Edward Elgar Publishing, 2004; See also Frey, A., *"To Sue or Not to Sue: Video-Sharing Web Sites, Copyright Infringement and the inevitability of Corporate Control"*, 2 Brook. J. Corp. Fin. & Com. L. 167, 2007-2008, p.193.

CHAPTER 3 - BACKGROUND TO TECHNOLOGY AND RECORDING INDUSTRY

3.1 HISTORY OF THE TECHNOLOGY AND THE RECORDING INDUSTRY

The rapid developments in technology and the music industry along with developments in the Australian US Free Trade Agreement ("AUSFTA") caused significant legislative amendments to the Australian *Copyright Act 1968* (Cth) ("Copyright Act"). In order to address the writer's hypothesis, it is important at the beginning to foster an understanding of the technology that attributed to widespread piracy and its development in parallel with the history of the recording industry.

3.1.1 The Mechanical Era

The methods of distributing music to entertain the public have evolved and are dependent upon the technology that is available at the time. At the beginning of the nineteenth century there was no way of recording music except where music was written in notational form on sheets of paper for its later use.[107] By the middle of the nineteenth century, sounds could be recorded, stored and repeated many times over when piano rolls and cylinder records were invented. It was only during this period that the performance of music became truly independent of the original musicians that performed it.[108]

3.1.1.1 First Recordings

The first technological advancement came in the form of piano rolls. Piano rolls became the accepted method of replaying and reproducing music mechanically for home entertainment.[109] In 1877, cylinder records were invented by Thomas Edison, but these were not suitable for mass

[107] Welsh, J., *"Pay What You Like - No, Really: Why Copyright Law Should Make Digital Music Free For Noncommercial Uses"*, 58 Emory L.J. 1495 (2008-2009), p.1501.
[108] Perritt, H., *"New Architectures for Music: Law Should Get Out of the Way"*, 29 Hastings Comm. & Ent. L.J. 259, 2006-2007, p.277.
[109] Welsh, J., op.cit., pp. 1501-1502.

production due to the physical limitation of having to manufacture vast quantities of cylinders or rolls.[110]

3.1.1.2 Flat Records

On 16 May 1888, Emil Berliner gave the first public demonstration of his invention, the flat phonograph record.[111] Berliner's design was a dramatic advancement from the work of Thomas Edison, because the flat disc could be produced in automated presses unlike the cylinder and piano roll. By 1892, the mass production of flat discs commenced making available for the first time cheap copies of any kind of recording.[112]

3.1.2 The Electronic Era

After the mechanical era of technology, an era which really astounded the entire world was the era of electronics. New innovations in about every field of electronics were being invented frequently. Similarly, new developments occurred within the recording industry after the invention of the electric microphone, which allowed sound to be recorded electronically with immense speed. The electric microphone was developed during the period 1917-1926 by Bell Laboratories in collaboration with Western Electric in the United States of America.[113] One of the main attributes associated with electronic recording was that it improved sound quality enormously in comparison to physical recordings. The first stereo master recordings were made in 1933 by Electric and Music Industries ("EMI").[114] EMI also created the shellac record, which became the standard of recording music for many years. [115]

The long playing 33 rpm microgroove records eventually replaced shellac discs.[116] The long playing record also meant that songs were not restricted to three minutes in playing length. Long playing records released writers and musicians from the restrictions of the three minute song,

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[110] Schoenherr, S., *"Recording Technology History",* History Department, University of San Diego, 6 July 2005, located at http://www.hadisumoro.com/audio/artikel/Recording%20Technology%20History%201877-2005.pdf (accessed on 6 April 2008).
[111] Ibid.
[112] Bellis, M., *"Emile Berliner – The History of the Gramophone"*, About.com, located at http://inventors.about.com/od/gstartinventions/a/gramophone.htm (accessed on 1 October 2008); see also Simpson, S., op.cit., p.271.
[113] Robjohns, H., *"A brief History of Microphones"*, Microphone Data Book, 2006, located at http://www.microphone-data.com/pdfs/History.pdf (accessed on 16 January 2008).
[114] Schoenherr, S., op.cit.
[115] Ibid.
[116] Ibid.

though in the days of more modern technology, the three minute song continues to remain the accepted length for recorded music by the music industry.[117] After 1948, shellac was replaced by plastic and in the 1950's in order to meet consumer demand faster record presses were developed and used.[118] The use of faster record presses had a direct effect on making records cheaper for the consumer.

3.1.2.1 High Fidelity

Simultaneously, advances in reproduction technology created High Fidelity ("Hi-Fi") which became a term amongst equipment manufacturers and consumers referring to the quality of the reproduction of sounds. Hi-Fi equipment assisted in the increase demand for records. Stereo records were soon released in 1958.[119] Stereo records enhanced the productivity and the performance of the sound recording.

3.1.2.2 Transistors

Invented in 1947 at Bell Laboratories, the transistor played a vital role in reforming the record industry. The transistor became the basis for the creation of the first portable tape recorder which was invented by two Japanese electrical engineers after they purchased the earlier patent rights. They formed an electrical company which grew into the colossus known as Sony.[120]

Prior to the development of the transistor, valves were used in radios and amplifiers. Valves became impractical for devices such as amplifiers and radios because they were limited to the supply of main power and their manufacturing costs were prohibitive.[121] Once transistors were introduced radios and amplifiers became more portable, cheap and robust.[122] The portability of transistorised radios and amplifiers allowed users to take these items for the first time away from the home.

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[117] Ibid.
[118] Ibid, p.257.
[119] Ibid.
[120] Bellis, M., *"The History of the Transistor - John Bardeen, Walter Brattain, and William Shockley"*, About.com, 2008, located at http://inventors.about.com/library/weekly/aa061698.htm (accessed on 8 February 2008).
[121] Simpson, S., op.cit., p.274.
[122] Ibid.

3.1.2.3 Audio Tape

Audio magnetic tape was invented in Germany in the 1930's.[123] Its development was critical for technological and artistic developments in the recording process. It affected the artistic direction of performances by finally allowing the editing of flawed performances.[124]

In the 1960's, Phillips released the first compact cassette. The compact cassette was the commercial evolution of the original magnetic tape system created in 1935 by I.G. Farben and AEG Telefunken.[125] Originally, Phillips did not consider the format to be used as a system of recording music because the format was noisy and not capable of recording the higher frequencies required for music production. Rather, the release of the first compact cassette system was intended to be utilised as an office dictation system. In a few short years noise reduction systems developed to improve the quality of compact cassette system.[126] Ray Dolby invented the most successful noise reduction system which he sold to the tape machine manufacturers. The Dolby Noise Reduction System continues and remains the industry standard today.[127]

3.1.3 The Digital Era

Digital recording of sound provides new opportunities for the use of different forms of media storage. The digital recording format permits sound recordings to be changed, altered, edited and stored just like any other form of computer data. Digital recording has now become the standard for recording music tracks.

3.1.3.1 Compact Discs

In the 1970's the Compact Disk ("CD") was created and became revolutionary technology at that time. With the assistance of new materials such as polycarbonate combined with the use of new technologies such as lasers and digital recording, all contributed to the new method of storing

[123] Kusisto, O., *"Magnetic Tape Recording: Reels, Cassettes, or Cartridges?"*, Journal of the Audio Engineering Society, Vol. 24, 1977, pp.827-31.
[124] Ibid.
[125] About.com, "*The History of Sound Recording Technology*", About.com, http://inventors.about.com/gi/dynamic/offsite.htm?site=http://www.recording%2Dhistory.org/ (accessed on 9 January 2008).
[126] Ibid.
[127] Ibid.

and recording images and sounds. Sony and Phillips expended millions of dollars producing and selling the medium to the general public.[128]

In the case of the Compact Disc, sampled sound is stored on the disc in the form of digital code and is read by a pickup in the form of laser beam technology. The CD is able to store approximately 700Mb or 74 minutes of uninterrupted high-fidelity sound.[129]

The public immediately accepted the new format and replaced their existing vinyl record catalogues of music with compact discs. As a consequence, the vinyl record discontinued production and was no longer an economically feasible format.[130] The public embraced this technology because CD's provided an impressive quality of sound and did not wear out like their vinyl counterparts.[131]

The increase in popularity of the CD format also spawned interest by the manufacturers of personal computers to utilise the CD format as a medium of digital data storage. In 1986, Compact Disc Read Only Memory ("CD-ROM")[132] drives were introduced for personal computers making the ¾ inch floppy disk obsolete.[133] By mid-1990, personal computing technology had advanced sufficiently enough so as to be capable of exploiting a CD's multimedia capacity. The capacity to store digital multimedia on CD's opened a new market for stakeholders both inside and outside the music industry by including other items such as graphics, text and video to music CD's.[134]

3.1.3.2 DVD's

The acronym DVD means Digital Versatile Disc or as it was later known Digital Video Disc. The DVD is comparable to a CD and utilises the same optical disk technology. A DVD has a higher capacity to hold more data than a CD. A DVD can store at a minimum 4.7 Gigabytes of digital data. A DVD is a more suitable medium for storing full length movies and advanced multimedia presentations that combine sound, graphics and animation that require higher

[128] See PC Guide.com located at http://www.pcguide.com/ref/cd/formatCDDA-c.html (accessed on 1 July 2008).
[129] Immink, K., "*The Compact Disc Story"*, Journal of the Audio Engineering Society, Vol. 46, Issue 5, May 1998, p.459.
[130] Simpson, S., op.cit., p.276.
[131] Ibid.
[132] For definition of "CD-ROM" see Glossary of Terms at p.15 of this thesis.
[133] Immink, K., op.cit., p.462.
[134] Simpson, S, op.cit., p.276.

capacities of data storage.[135] The beauty of DVD's for the music industry is that they can combine an artist's music video with each song of their album, therefore increasing promotion for the artists and the label.[136]

However, the development of DVD's did not begin smoothly as Sony and Phillips continued to market and drive their multimedia CD's and Matsushita Electric and Toshiba along with the movie-makers Time Warner in opposition developing their Laser Disc technology.[137] The competition between these companies had the possibility of creating a similar battle between incompatible formats as occurred between the VHS/Betamax formats.[138]

In order to prevent a technology race between incompatible formats and under increasing demand from the computer industry, the major electronics manufacturers agreed to form a DVD consortium to discuss technological issues and develop a single standard disc format.[139] At the end of 1995, the resultant Digital Versatile Disc Read Only Memory ("DVD-ROM") standard was achieved which was a concession between the two disc formats. A number of competing DVD formats exist which continue to be manufacturer specific.[140] The Movie Industry without an anti-copying system for the DVD format became fearful about serial universal pirating of their video content and wanted an anti-copying system similar to that of Digital Audio Tapes.

Whilst developing an anti-copying system for the DVD format, the Movie Industry learned that technology had been developed to allow a Personal Computer ("PC")[141] to copy data from a DVD to other digital mediums. The Movie Industry had to respond promptly with an embedded copy protection method into the DVD and as a result by the end of 1986 the Content Scrambling System ("CSS") was created.[142]

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[135] Wempen, F., *"Build Your Skills: A comparison between DVD and CD-ROM"*, TechRepublic, 10 May 2001, located at http://articles.techrepublic.com.com/5100-10878_11-1047035.html (accessed on 4 February 2008).
[136] Simpson, S., , op.cit., p.278.
[137] Ibid.
[138] Schoenherr, S., op.cit.
[139] Brinkley, J., *"On New DVD Formats, the Sound of Good Things to Come"*, New York Times, December 9, 1999, located at http://www.nytimes.com/library/tech/99/12/circuits/articles/09down.html (accessed on 30 July 2008). See also Schoenherr, S., op.cit.
[140] See Glossary of Terms definition of DVD+R, DVD-R, DVD+RW, DVD-RW and DVD-RAM
[141] For definition of "PC" see Glossary of Terms at p.23 of this thesis.
[142] See definition of *"Content Scrambling System"*,Whatis.com, http://searchsecurity.techtarget.com/sDefinition/0,,sid14_gci214575,00.html (accessed on 1 July 2008); see also "CSS" in Glossary of Terms at p.16 of this thesis.

Designed by Sony, Philips and Panasonic a new format was released in 2006 as the successor to the DVD called the Blu-ray Disc. Blu-ray is a form of high definition DVD and can store up to five times more data than the conventional DVD format. The Blu-ray name was derived from the fact that the format utilises a blue ray to read and write data, whereas conventional optical disc technologies use a red ray. Blu-ray technology is also backward compatible and can read discs recorded in the different DVD formats. Blu-ray technology is considered to provide higher sound and picture quality for recording and playback than conventional DVD formats.[143]

3.1.3.3 Other forms of Digital Storage

The revolution of the CD/DVD and the public's widespread acceptance of this medium as the standard made it difficult for the public to accept other forms of digital storage. Some of the recording formats which have not succeeded include:

(i) Phillip's Digital Compact Cassette format or Digital Audio Tape ("DAT")[144] is a digital recording and playback medium that either utilised a rotating head and helical scan or stationary spinning heads to record and playback recorded data. DAT tapes were also able to read ordinary analogue cassettes;[145]

(ii) Sony's MiniDisc is approximately three inches in diameter and intended to be the system to replace the compact cassette. The MiniDisc looks like a tiny version of its big brother the CD. The MiniDisc uses ATRAC audio data compression for encoding and playback;[146]

(iii) The large diameter Laser Discs;[147] and

(iv) Smart cards, Flash Cards, Memory Sticks or Universal Serial Bus ("USB") flash drive devices- these are more popular with digital cameras and personal computers.[148]

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[143] See definition of "Blu-Ray Disc" from blu-ray.com, located at http://www.blu-ray.com/info/ (accessed on 8 December 2008).
[144] See "DAT" in Glossary of Terms at p.16 of this thesis.
[145] Gunnlaugsson, O., *"DAT – Digital Audio Tape"*, Audiotools.com, 27 September 2005, located at http://audiotools.com/dat.html (accessed on 4 April 2008).
[146] Bartlett, B., *"Minidisc Beginners Guide"*, Cassette House, 2000, located at http://www.tape.com/techinfo/minidisc.html (accessed on 5 February 2008).
[147] King, B., *"Introduction to Laser Disc"*, European Laser Disc Group, October 1995, located at http://www.ee.surrey.ac.uk/Contrib/EuropeLD/LDintro.html (accessed on 20 January 2008).
[148] For definition of "Memory Sticks" see Glossary of Terms at p.22 of this thesis. See also definition of "USB flash drives" in Glossary of Terms at p.26 of this thesis.

3.2 AN OVERVIEW OF DIGITAL MEDIA TECHNOLOGY

Generally, the expression "digital" refers to a representation that is composed of binary code[149] (ones and zeros) that is understood by computers.[150] Its opposite, "analogue," refers to phenomena that can have a range of values.[151] The process of turning analogue data[152] into a digital representation that can be stored and manipulated by a computer is called digitisation or encoding.[153] Any analogue data can be digitised, for example, an image, a sound, a movie or even a text file. Digitising methods vary, but each accomplishes the same result, that being the creation of a string of ones and zeros that can be decoded and "played back" to reproduce the original analogue experience.[154]

3.2.1 The Advantages of Digital Technologies

Fundamentally, information must be in digital form to be stored in or manipulated by a computer or other digital device.[155] However digital technology offers a variety of other benefits as well, including ease of duplication, electronic distribution, compression and encryption.[156] The first three of these benefits combine to create new and potentially disastrous issues for copyright holders.[157] The last of the benefits holds the lifeline for the recording industry.

3.2.1.1 Duplication

There is no way to make a perfect copy of an analogue event.[158] A photograph, sufficiently enlarged, will eventually show the grain of the photographic paper. A microphone, however sensitive, will always introduce a certain amount of background noise into a recording. Digitising an analogue source also creates an imperfect (though often very good) copy.

[149] See Glossary of Terms at p.14 of this thesis.
[150] Kramarsky, S., *"Copyright Enforcement in the Internet Age: The Law and Technology of Digital Rights Management",* 11 Journal of Art and Entertainment Law, Spring 2001, p.3.
[151] Ibid.
[152] See Glossary of Terms at p.13 of this thesis.
[153] Kramarsky, S., op.cit.
[154] Ibid.
[155] Ibid.
[156] Kruger, C., *"Passing the Global Test: DMCA §1201 as an International Model for Transitioning Copyright Law into the Digital Age"*, 28 Hous. J. Int'l L., 281, 2006, p.287.
[157] Zankel, J., *"A Little Help with Sharing: A Mandatory Licensing Proposal to Resolve the Unanswered Questions Surrounding Peer-To-Peer Liability for Contributory Copyright Infringement in the Wake Of Grokster"*, 80 S. Cal. L. Rev. 189, 2006-2007, p.195.
[158] Kramarsky, S., op.cit.

However, once the digital version is made it can be copied perfectly, from generation to generation without any loss of quality.[159]

There is no easy way to prevent this kind of perfect copying of digital media. Whatever the medium, whether it is CD, digital audio tape, DVD or digital sound file, the underlying information is nothing more than a string of ones and zeros, and that string of ones and zeros can always be copied faithfully by a computer equipped with the right software.[160]

3.2.1.2 Compression

Compression is the reduction of a digital file's size using a compression algorithm.[161] In other words, a mathematical "recipe" that permits the removal of redundant or non-essential information.[162] The ease of making perfect copies of digital information would not, in itself, pose a serious threat to copyright holders if those copies could not be so easily distributed, but compression makes wide distribution a reality.[163]

The recent advances in compression algorithms combined with the wide reach of the Internet and fast home access provided by technologies like fibre optic connections, cable-modems and DSL, means that pirated music (and, to a lesser extent, movies) are available to a much wider audience.[164]

The record industries have employed a two prong strategy to attack these technological advances that threaten their business. First, they have lobbied hard for new laws to protect their intellectual property rights and have litigated in court. Second, they have devoted their substantial resources to creating, marketing and supporting digital rights management systems to secure their content delivery methods.[165] The cornerstone of this second prong is encryption technology.

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[159] Kruger, C., op.cit.
[160] Kramarsky, S., op.cit., p.5.
[161] Ibid, p.6. See also definition of Algorithm in Glossary of Terms at p.13 of this thesis.
[162] Ibid.
[163] Hepler, D., *"Dropping Slugs in the Celestial Jukebox: Congressional Enabling of Digital Music Piracy Short-Changes Copyright Holders"*, 37 San Diego Law Review 1165, Fall 2000, p.1173.
[164] Kramarsky, S., op.cit., p.7
[165] Ibid, p.8

3.2.1.3 Encryption

Encryption is the process of transforming information and data by using an algorithm to make the information unreadable.[166] More precisely, it is a method of converting a message into a cipher text by using a key. The message remains encrypted and cannot be decrypted without the use of an appropriate key.[167] No encryption system can guarantee to be totally secure as expert hackers can crack most encryption schemes given enough time and resources with the assistance of specialised software and the expertise of the hacker.[168]

There are numerous encryption schemes for data that are available and they range from the uncomplicated and simple to break to the more sophisticated and highly secure. At this stage of the thesis, it is only important to understand that digital data (including digitised audio and visual media files) can be encrypted by means that are well understood and commonly available so that they cannot be accessed by ordinary users without the permission of the person or company holding the encryption "key."

[166] Clark, D., *"Digital Millenium Copyright Act: Can it take down Internet Infringers?"*, 6 Comp L. Rev. & Tech J. 193, 2002, p.202.
[167] Ibid.
[168] Kruger, C., op.cit., p.291.

3.3 THE EMERGENCE OF DIGITAL AUDIO TECHNOLOGY FOR THE PC

The emergence of digital audio file formats for use with PC's has created a music revolution. As technology has advanced (with such changes as broadband increasing bandwidth and speed) it has enabled the average user to distribute near CD quality audio files via the Internet. It is important to distinguish the different sound applications available on the Internet and the technology available that aids in the distribution.

3.3.1 Wave File Format

The wave file format was especially designed by Microsoft and IBM to be introduced for the PC. "The wave audio file format has become the standard format for everything from system and game sounds to CD quality audio."[169] A Wave file is usually recognised by its file extension WAV (.wav). The Wave file format has also been used as an interchange medium in other computer operating systems, such as Macintosh.[170] This allows compatibility amongst content developers to be able to transfer audio files between operating systems without technical issues arising. Wave files are large in size because they are generally uncompressed raw data but the quality of sound is superior to other audio file formats.[171]

3.3.2 MP3 Format

Over the last decade, the MP3 audio file format created much interest amongst millions of music enthusiasts, computer users and the music industry.[172] MP3 is an acronym for Moving Picture Experts Group 1, Audio Layer 3. MP3 is a compression technology that shrinks digital audio files to a relatively small size with very little difference in the quality of the sound fidelity.[173] "MP3 files can be compressed at different rates, but the more [times] they're compressed, the worse the sound quality [becomes]."[174]

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[169] See definition of *"Wave File"*, Whatis.com, http://searchsmallbizit.techtarget.com/sDefinition/0,,sid44_gci213473,00.html (accessed on 13 July 2008).
[170] Ibid.
[171] Scott, J., *"Leave them Kids Alone - A Proposed Fair Use Defense for Noncommercial P2P Sharing of Copyrighted Music Files"*, 3 FIU L. Rev. 235, 2007-2008, p.241.
[172] Bellis, M., *"History of MP3"*, About.com, located at http://inventors.about.com/od/mstartinventions/a/MPThree.htm (accessed on 10 July 2008).
[173] Ibid.
[174] Ibid.

The Fraunhofer Institute in Erlangen, Germany took the credit for developing and creating the MP3 format in the mid-1980's. The impetus for creating the MP3 format was to develop a high quality, low bit-rate audio coding technology.[175] In 1989, Fraunhofer was granted a patent for MP3 in Germany and a few years later it was submitted to the International Standards Organization ("ISO")[176], and integrated into the MPEG-1 specification. [177]

Frauenhofer was also credited for creating the first MP3 player in the early 1990's.[178] Following on from Frauenhofer's research, Advanced Multimedia Products created the AMP MP3 playback engine having been regarded as the first accepted MP3 player to become popular with Internet users.[179]

Not long after these developments, a couple of inventive students integrated a Windows interface to the AMP MP3 playback engine[180] and called it Winamp.[181] In 1998, the MP3 craze grew when Winamp offered the music player for free to Internet users.[182]

MP3's became extremely attractive to music fans because it compressed what used to be unmanageably large music data files into relatively small files which could be easily and quickly downloaded via the Internet.[183] Over the past several years, the MP3 format allowed music enthusiasts to use the Internet as an alternative and sometimes free source of music.[184]

The MP3 format created a digital audio revolution for music fans. In addition to the development of the MP3 format, the production and manufacture of portable MP3 players provided users with options to download and replay the music away from the home PC. MP3

[175] See Fraunhofer Institute web page located at http://www.iis.fraunhofer.de/amm/ (accessed on 5 January 2008).
[176] For definition of "ISO" see Glossary of Terms at p.21 of this thesis.
[177] Ibid.
[178] Bellis, M., *"History of MP3",* op.cit.
[179] Ibid.
[180] See Glossary of Terms at p.13 of this thesis.
[181] See Nullsoft Winamp player located at http://www.winamp.com (accessed on 5 July 2008).
[182] See history of Winamp located at http://www.winamp.com/about/story.php (accessed on 5 July 2008).
[183] Miller, S., *"Peer-to-Peer File Distribution: An Analysis of Design, Liability, Litigation, and Potential Solutions"*, The Review of Litigation, Vol. 25, Issue 1, Winter 2006, p.188.
[184] Srivastava, A., *"The Anti-Competitive Music Industry and the Case for Compulsory Licensing in the Digital Distribution of Music"*, 22 Touro L .Rev. 375, 2006, p.408.

portable players and components are now featured readily around the home and have become incorporated as standard features in car audio systems.[185]

The MP3 format is a digital audio codec.[186] A digital audio codec is a process of compressing and decompressing digitised sound. By way of example, a standard three minute song recorded on a CD would approximately be equivalent to 30-40 megabytes of data. Whereas, compressing that same three minute song in MP3 format would amount to about 3-4 megabytes of data.[187]

MP3 files are comparatively small in data size. MP3's are easy to obtain and download from the Internet and store in large numbers on a computer. In comparison, other uncompressed formats like WAV, Audio Interchange File Format ("AIFF"), Simple Audio file format ("AU") and Pulse Code Modulation format ("PCM") files are too large and impractical to store on a computer hard drive in large numbers.

The MP3 codec is a 'lossy' form of compression.[188] In order to achieve 'lossy' forms of compression a method called 'perceptual coding' is used. Perceptual coding is a process that occurs when during the compression and decompression of a raw data file the data is different from the original but is perceived as being close enough to that of the original data. For sound files, MP3 and other audio codecs use 'perceptual coding' to remove the amplitude of some frequencies which are inaudible from the raw data of the file during the compression of the file.[189] During decompression and playback the portion of the file removed does not denigrate the perceptible quality of the original file. Whatever loss of quality in the sound file occurs during compression and decompression to create an MP3 file, it is deemed by the average music listener as an acceptable perceptible loss in audio fidelity in lieu of the trade off for the advantages of smaller compressed files and the benefits of easier storage, portability and

[185] Gowan, M., *"How MP3 Works"*, CNN.com. 3 February 2000, located at http://archives.cnn.com/2000/TECH/computing/02/03/mp3.works.idg/index.html (accessed on 4 July 2008).
[186] For definition of "Codec" see Glossary of Terms at p.15 of this thesis.
[187] Ibid.
[188] 'Lossy' compression is reducing a file by permanently eliminating certain information, especially redundant information. When the file is uncompressed, only a part of the original information is still there (although the user may not notice it). Lossy compression is generally used for video and sound, where a certain amount of information loss will not be detected by most users.
[189] Zentner, A., *"Measuring the Effect of File Sharing on Music Purchases"*, 49 Journal of Law and Economics 63, April 2006, p.70.

transferability of the files.[190] The average music enthusiast would not even notice the difference in sound quality between an MP3 file and a CD quality sound track.[191]

As the MP3 craze proliferated, it was only a matter of time before new software was developed to support the new digital audio format. The MP3 movement gained momentum when supporting software in the form of new MP3 players, encoders, decoders, CD rippers and burning[192] software were released to the market.[193]

3.3.2.1 The MP3 Movement

The reason MP3's mushroomed in popularity and became the accepted standard amongst music enthusiasts is due its open format absent of requiring any proprietary platform to play the audio files. The original patent holders consciously made the decision to make the technology 'open source' and to permit developers to create new MP3 software.

MP3 is not the most efficient digital audio format nor does it provide the highest sound quality. For some time now better compression technologies and digital audio formats have been created but they have not been readily taken up by Internet users.[194] Many software companies such as Microsoft have developed their own proprietary formats but place limitations and restrictions on how their technology can be used by developers.

Microsoft's proprietary format called Windows Media Audio ("WMA")[195] file format has gained acceptance with users because their choices become limited when it is packaged as the standard audio format in Windows 98/2000/XP and VISTA operating systems.[196] WMA version 12 is

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[190] Sellars, P., *"Behind the Mask - Perceptual Coding: How Mp3 Compression Works"*, Sound on Sound Magazine, May 2000, located at http://www.soundonsound.com/sos/may00/articles/mp3.htm (accessed on 2 August 2008).
[191] Ibid.
[192] See definition of "Burn" and "Burning" in Glossary of Terms at p.14 of this thesis and for definition of "CD Rippers" see Glossary of Terms at p.15 of this thesis.
[193] Bellis, M., *"History of MP3",* op.cit.
[194] Fogarty, P., op.cit., p.145.
[195] See definition of "WMA" in the Glossary of Terms at p.27 of this thesis.
[196] Dahl, E., *"Microsoft Windows Media Player"*, PC World, 31 July 2007, located at http://www.pcworld.com/downloads/file/fid,22326-order,1-page,1-c,audiotools/description.html (accessed on 13 March 2008); See also Liron, M., *"Windows XP Media Player"*, XPUpdate.com, 9 August 2006, located at http://www.updatexp.com/windowsxpmediaplayer.html (accessed on 6 May 2008).

expected to be released with the new Windows 7 operating system.[197] Microsoft claim that the WMA format provides higher quality audio at smaller file sizes.[198]

The rampant downloading and sharing of MP3's concerned the music industry greatly because due to its open format, there were no digital copyright protection measures provided with MP3's. The result being that millions of songs were freely swapped between users. The relative size of an MP3 file meant downloading was easy and could even be sent as email attachments to colleagues and friends. The recording industry shifted their position to incorporate Digital Rights Management ("DRM") technologies with their music CD's and MP3s in order to protect their music from being ripped or downloaded. Further discussion of DRM technologies will take place in Chapter 7 of this thesis.

MP3's also became very compelling because of the ease of remixing favourite songs. Many users of MP3 software can create their own favourite song lists, remix them to their liking and burn a compilation CD using their CD burner software.[199] Therefore, creating their own à la carte menu of songs.

3.3.2.2 Digital Audio Players

In order to listen to digital audio files a user must acquire the software of a digital audio player in order to play downloaded digital music files. Many digital audio players have been made available as free downloads and some of the more popular players available include Sonique and Winamp. A digital audio player operates by converting an encoded audio file, such as an MP3, back to a standard uncompressed audio format. The digital audio player then sends the uncompressed audio signal to a computer's sound card, which outputs that signal to a listener's headphones or computer speakers.[200]

Digital audio players can be found in car stereos, portable devices, mobile phones and they have even been incorporated as part of the Microsoft Windows operating system. However, most

[197] Thurrott, P., *"Windows '7' FAQ",* Paul Thurrott's SuperSite for Windows, 14 February 2007, located at http://www.winsupersite.com/faq/windows_7.asp (accessed on 20 June 2008).
[198] See Microsoft's home page located at http://www.microsoft.com/windows/windowsmedia/music/default.aspx (accessed on 16 September 2008).
[199] For definition of "CD Burner" see Glossary of Terms at p.14 of this thesis.
[200] Bonsor, K., Tyson, J., and Freudenrich, C., *"How MP3 Players Work"*, Howstuff works.com, located at http://electronics.howstuffworks.com/mp3-player1.htm (accessed on 9 August 2008).

people instead of paying for commercial digital audio players have utilised existing technology by burning digital music files onto CDs using a CD-R[201] Burner drive. During the burning process digital audio files are converted into wave (.wav) files and then burned onto a CD. Previously, this task was time consuming because manual decoding was required to convert each digital audio file into a wave file before the burning process could take place. However, the latest digital audio CD burning software comes bundled with all the tools to make it easier to accomplish this task.[202]

3.3.3 Digital Audio Software Tools

Other digital audio tools that may be utilised by avid digital music users are CD rippers, digital encoders and digital decoders. Each of these tools are considered in turn.

3.3.3.1 CD Rippers

The simplest method of creating digital audio files is to extract the sound files from a CD. In order to achieve this, CD ripping software is required. A CD ripper provides the user with a choice of selecting individual sound tracks from the CD to copy. A CD ripper then extracts the data from a CD and converts it to an uncompressed audio data file called a wave file.[203] When the audio data is in this uncompressed format it becomes straightforward then to create a digital audio file in a number of different digital formats. The act of ripping a track from a CD would be a direct infringement of copyright unless the act is done for private use and for format shifting purposes which are exceptions to copyright infringement in the Act. The defences to copyright infringement are discussed in more detail in section 6.6.3 of this thesis.

3.3.3.2 Digital Encoders

After individual audio files are extracted from a CD and converted into wave files, a digital encoder is required to convert the audio files into a digital audio format.[204] A digital encoder is a compression tool that takes the audio data and compresses the size of the file at a ratio that will not compromise dramatically the audio file's sound quality and fidelity. An example of a digital

[201] For definition of "CD-R" see Glossary of Terms at p.15 of this thesis.
[202] Ibid.
[203] Kayne, R., *"What is Ripping a CD?"*, Wisegeek, 2 August 2008, located at http://www.wisegeek.com/what-is-ripping-a-cd.htm (accessed on 24 August 2008).
[204] MP3-Converter.com, *"MP3 Encoders"*, MP3-Converter.com, located at http://www.mp3-converter.com/encoders/ (accessed on 16 July 2008).

encoder is the "MP3 to Wave Converter PLUS!" which can encode and decode MP3's and wave files.[205] Many of the new applications include encoders, digital audio players, CD rippers and CD burners all in the one software. An example is the Nero burning software which can rip and encode simultaneously meaning that two separate applications to create a digital audio file are not required.[206]

3.3.3.3 Digital Decoders

Another tool is a digital decoder. A digital decoder operates in the reverse to a digital encoder. Digital decoders operate by taking an existing digital audio file and converting it into another audio format like wave (.wav).[207] An example of a decoder is MP3 to WAVE Converter PLUS, this program decodes MP3s to wave files to assist those who may wish to edit or mix their own audio files, i.e. disc jockeys.[208]

3.3.3.4 Webcasting or Streaming Audio

Another popular method of playing digital audio is non-interactive Webcasting or as it also sometimes known Internet radio.[209] Webcasting is single stream audio band that can be tapped into by listeners from their computers. The method of streaming digital audio does not require the user to download any files to their hard drives but rather is like a traditional radio broadcast played through a digital audio player.[210]

The first company to offer streamed digital audio software was RealNetworks. RealNetworks used their own proprietary format called RealAudio.[211] Microsoft then entered the market via their Windows Media application offering its own proprietary streaming audio format.[212] A simple search on the Internet for the terms "webcasting" or "Internet radio" will reveal numerous

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[205] Ibid.
[206] Ibid.
[207] MP3-Converter.com, *"MP3 Decoders"*, MP3-Converter.com, located at http://www.mp3-converter.com/decoders/ (accessed on 16 July 2008).
[208] Ibid.
[209] Balaban, D., *"The Battle of the Music Industry: The Distribution of Audio and Video Works via the Internet, Music and More"*, 12 Fordham Intellectual Property, Media & Entertainment Law Journal 235, Fall 2001, p.242.
[210] Ibid.
[211] Craft, K., *"The Webcasting Music Revolution is ready to begin, as soon as we figure out the Copyright Law: The story of the Music Industry at war with itself"*, 24 Hastings Communications and Entertainment Law Journal 1, Fall 2001; see also Mangis, C., *"Music for Sale – Will people subscribe?"*, Vol. 21, Issue 3, PC Magazine, 12 February 2002.
[212] Ibid.

hits offering various Internet radio programming. Many content sites have offered digital audio streams to attract new users and provide alternative choices from using the streaming formats supplied by Microsoft's Windows media and RealAudio.[213] Streaming digital music content can also be interactive allowing users to specifically request what content they want to hear.[214]

Streaming may well be the future of digital music as Apple have indicated that they are exploring hosting all iTunes content (both video and audio) on Apple's own servers in their purpose built data centre.[215] Apple have plans to permit direct streaming of its content via cloud computing to their customer's computers and Apple made devices.[216] In addition, it has also been proposed that Apple will permit its customers to stream their own content to other computers or devices made by Apple and allow automatic synchronisation of wireless Apple devices to the iTunes store, where this had been previously impossible without USB connectivity to a computer to synchronise their digital audio players.[217]

Webcasting and streaming audio of sound recordings raise issues in copyright law relating to the copyright owner's exclusive rights to reproduce and publicly perform the works. These issues are dealt with in Chapter 6 relating to P2P networks and a detailed discussion relating to Webcasting and streaming audio in relation to copyright will not be addressed as it falls outside the ambit of this thesis.

3.3.3.5 Podcasting

The phrase Podcasting was coined in 2004 and is a hybrid word combining the terms "iPod" and "broadcasting" together.[218] Podcasting is the distribution of audio or video files over the Internet episodically to listeners on personal computers and digital mobile devices. A podcast is a web feed that can be downloaded or provided free or can be subscribed to. What sets

[213] Ibid.
[214] Aitken, B., *"Download, Stream, or somewhere in between: The Potential for Legal Music use in Podcasting"*, Duke Law & Technology Review, Vol. 2006, No. 12, 2006, p.10, located at https://www.law.duke.edu/journals/dltr/articles/pdf/2006DLTR0012.pdf (accessed on 5 August 2008).
[215] Gizmodo Blog, *"Rumour: Apple jumping into the Cloud soon with Streaming Media and Wireless Syncing"*, gizmodo.com, http://gizmodo.com/5577475/rumor-apple-jumping-into-the-cloud-soon-with-streaming-media-and-wireless-syncing (last visited 31 December 2008).
[216] Pollette, C., *"How the Google-Apple Cloud Computer will work?"*, Howstuffworks, 6 February 2008, located at http://computer.howstuffworks.com/google-apple-cloud-computer.htm (accessed on 9 February 2008).
[217] Gizmodo Blog, op.cit.
[218] Fox, M., and Ciro, T., *"The Emerging Legal Environment for Podcasting"*, Entertainment Law Review, Issue 8, 2005, p.215.

podcasting apart from web streaming or downloading is that new content can be programmed to be delivered either automatically, sporadically or at planned intervals.[219] Some podcast networks provide several episodes on the same feed.[220]

Podcasting's beneficial characteristic is about making available content (audio or video) for download over the Internet so that an audience can enjoy listening to the broadcasts at anytime. Again the practise of Podcasting raises many legal issues including copyright which will not be addressed in this thesis.

3.3.3.6 Peer to Peer file sharing (P2P)

P2P services principally permit free file downloads by enabling users to hunt for music files online by directly linking to the hard drives of thousands of other users.[221]

Napster[222] was the first mainstream P2P service which had considerable success and a large user following. Because of its success it attracted the attention of the Recording Industry Association of America ("RIAA").[223] The Napster service provided a system of interconnected nodes[224] and centralised tracking servers.[225] Although the actual process of file sharing occurred between users, Napster's involvement in providing a centralised tracking system led to its demise.[226]

Since the downfall of Napster in 2001, new networks emerged to fill in the gaps with FastTrack, Gnutella and eDonkey being the most popular at that time. The FastTrack protocol lay beneath services like KaZaA, Grokster and iMesh, and relied on certain clients acting as supernodes to

[219] Ibid.
[220] Aitken, B., op.cit., p.1
[221] Schaumann, N., *"Intellectual Property in an Information Economy: Copyright Infringement and P2P Technology"*, 28 William Mitchell Law Review 1001, 2002, pp.1002-1003; See also Bartoszek, P., *"Deemed Distribution: How Talking about Music Can Violate Copyright Law"*, J.L. Tech. & Pol'y 439, 2008, p.441.
[222] *A & M Records, Inc. v. Napster, Inc.* 114 F. Supp. 2d 896 (N.D. Cal. 2000). aff'd in part rev'd in part, 239 F.3d 1004 (9th Cir. 2001); aff'd 284 F.3d 1091 (9th Cir. 2001); 2002 US App. LEXIS 4752 (9th Cir. 2001).
[223] For further details of "RIAA" see Glossary of Terms at p.24 of this thesis.
[224] For definition of "nodes" see Glossary of Terms at p.23 of this thesis.
[225] Ibid.
[226] Ibid.

speed up file searching.[227] KaZaA hit the headlines in Australia, after the Australian Federal Court found that its owners knowingly authorised its customers to trade copyright files.[228]

The eDonkey network used dedicated servers to track and locate files, rather than relying on supernodes. The eDonkey network was a massively popular service and was the most popular method for trading video files.[229] Gnutella took a slightly different tack to eDonkey and FastTrack by delivering a closed decentralised network.[230] Subsequently, eDonkey has been shut down after threatened litigation from the music industry.

Looking beyond the major players there are many more networks lurking in the background. Some like MP2P are exclusively used for music, and others will restrict clients from connecting unless they offer up a library of files to share.[231] The net effect of the many networks, each with their strengths and weaknesses, (whether legitimate or illegitimate) provides a collective mesh of peers where one can find anything one wants.

One of the most significant moments in the development of P2P networks occurred when lone programmer Bram Cohen unleashed BitTorrent in 2002.[232] Prior to BitTorrent, if a P2P user wanted to distribute a large file, it was likely that the bandwidth costs would be very high.[233] The more popular the file the greater demand on the server load. Consequently, the networks would either have to expend monies on multiple servers or the server would crawl to a stop as it tried to fulfil the many requests.[234]

BitTorrent changes this by turning the process upside down. By using the bandwidth of each person who wants the file, rather than a series of one way client connections to a single central

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[227] Kidd, D., *"Essential Filesharing"*, Australian PC Authority Magazine, Haymarket Media Pty Ltd, April 2006, pp.27-28.
[228] *Universal Music Australia Pty Ltd & Ors v. Sharman License Holdings Ltd & Ors* [2005] FCA 1242 (5 September 2005); [2006] FCAFC 41 (23 March 2006).
[229] Kidd, D., op.cit.
[230] Ibid.
[231] Ibid.
[232] Helton, M., *"Secondary Liability for Copyright Infringement: BitTorrent as a Vehicle for Establishing a New Copyright Definition for Staple Articles of Commerce"*, 40 Colum. J.L. & Soc. Probs. 1, 2006-2007, pp.17-18
[233] Vickers, A., *"Peering Beyond Today's Internet File Sharing Concerns: The Future of Bit Torrent Technology"*, Tulane Journal of Technology & Intellectual Property, Vol. 8, 2006, p.135.
[234] Ibid.

server, popular files are distributed faster and cheaper.[235] Users of BitTorrent surf the web to find files with an extension such as "name.torrent", they then download and open the file with a BitTorrent client program. In order to start downloading with BitTorrent, a user must first download a .torrent extension. The tiny files contain information about the original file, as well as information about the tracking server. When the .torrent file is loaded into a BitTorrent client, the client contacts the tracker to discover which peers have the data the user needs. Once the user starts to collect data packets, the tracker will then let the other peers know, who will then start asking the user for data.[236] Collectively, a cluster of peers connected together sharing a torrent is called a swarm.[237] The net result is that no matter how many users are after a file, there's little chance of a bottleneck forming. With more users BitTorrent provides a faster connection. The reverse is true also, where an unpopular file will often be slower to obtain due to the lack of peers to download from.[238]

A distinct benefit of BitTorrent over other P2P networks is in its use of the Web as a searching tool.[239] Other P2P programs require the user to either conduct a direct search of the shared files of other peers, or the need to access a designated central server to search for their requests.[240] Few search engines can compete with the speed of a Google search, and this is the strength of BitTorrent.[241] The recording industry have issued an assault on BitTorrent in 2007 and were successful in closing down several Tracker sites.[242] Another of the major Tracker sites Pirate Bay has also had proceedings issued against them.[243]

The rapid developments in digital technology and the Internet meant that a period of creativity, exchange and innovation in technologies occurred without regulation. The Australian copyright

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[235] Dessent, B., *"Brian's BitTorrent FAQ and Guide"*, Dessent.net, May 2003, located at http://www.dessent.net/btfaq/#what (accessed on 7 December 2008); See also Giblin, R., *"A Bit Liable? A Guide to Navigating the US Secondary Liability Patchwork"*, Santa Clara Computer & High Tech, L.J., Vol. 25, 2008, p.9.
[236] Ibid.
[237] Vickers, A., op.cit., p.137.
[238] Kidd, D., op.cit.
[239] Boyd-Farrell, R., *"Legal Analysis of the Implications of MGM v. Grokster for BitTorrent"*, 11 Intell. Prop. L. Bull. 77, 2006-2007, p.79.
[240] Kidd, D., op.cit.
[241] Ibid.
[242] Aune, S., *"The Demise of BitTorrent: 7 Trackers That Fought the Law in 07"*, Mashable.com, 13 January 2008, located at http://mashable.com/2008/01/13/the-demise-of-bittorrent-7-trackers-that-fought-the-law-in-07/ (accessed on 7 June 2008).
[243] The Local, *"Record Companies Sue Pirate Bay Four"*, The Local, 31 March 2008, located at http://www.thelocal.se/10818/20080331/ (accessed on 4 April 2008).

law took some time to catch up with the technology and amendments to the Act to combat these technologies are further addressed in Chapter 6 of this thesis. In the next chapter the writer will take a closer examination of the music business and its structure and the affect music piracy has had to their traditional business model.

3.4 THE INTERNET ARCHITECTURE

In parallel to the developments in music technology, the technological advancements in both computing and the Internet's architecture have also had their effects on the recording industry.

3.4.1 Internet Architecture Development

The Internet is a global system of computers that are all interconnected.[244] It evolved from the growth of an idea that began at the end of the Second World War and developed as a consequence of the Cold War.[245] The US military developed a network called Advanced Research Projects Agency Network ("ARPANET") in 1969.[246] ARPANET was developed to ensure computers managed by the military were able to continue to communicate with one another even if parts of the network were made inoperable by war.[247]

To meet their objective, the pioneers of the Internet envisaged that the network architecture be a decentralised one.

> *"*[An architecture that would not depend on central administrative headquarters]…*would ensure that in the event of a nuclear war, the only things that would survive would be cockroaches and the Internet".*[248]

ARPANET's decentralised architecture was effective because each computer connected to the network would be linked like a spider web so that none of the end points of the network would connect directly to any of the central bases in charge of giving instructions or managing communications.[249] Rather, every node[250] in the network would be linked to every other node by routing and criss-crossing the connections at every point, so that if one node was rendered inoperable or destroyed each node could continue to communicate and interconnect with one

[244] Howe, W., *"A brief history of the Internet",* Walthowe.com, 2004, located at http://www.walthowe.com/navnet/history.html (accessed on 16 September 2008).
[245] Miller. J., *"The Development of the Legal Information Institutes around the World",* 30 Can. L. Libr. Rev. 8 2005, p.8.
[246] See "ARPANET" in the Glossary of Terms at p.14 of this thesis.
[247] Howe, W., op.cit.
[248] Koman, R., "*Ian Clarke Has Big Plans for the Internet"* Open P2P.com, 14 November 2000 http://www.openp2p.com/pub/a/p2p/2000/11/14/ian.html?page=1 (accessed on 17 June 2008).
[249]Kristula, D., "The History of the Internet", Davesite.com, August 2001, located at http://www.davesite.com/webstation/net-history1.shtml (accessed 4 July 2008).
[250] For a definition of "Node" see the Glossary of Terms at p.23 of this thesis.

another.[251] The ARPANET network was eventually succeeded by a network created by the National Science Foundation ("NSF") in 1986.[252] Due to the network continuing to double in size every seven months between 1990 -1995, NSF agreed to pass the operations onto the Internet Corporation for Assigned Names and Numbers ("ICANN")[253] in 1995 to manage the network. The network managed by ICANN formed the basis of the Internet as we presently know it.[254]

Two important characteristics of the Internet's decentralised architecture is its ownership structure and open design.[255] Any user can become and own a part of the network by simply connecting to the Internet using a computer.[256] The Internet's open design allows any user who connects to the Internet to be able to transmit data across the network.[257]

All computers connected to the Internet are issued with a numerical Internet Protocol ("IP") address that distinctively distinguishes it from other computers in the network.[258] ICANN is the administrator for IP addresses.[259]

In order to overcome the decentralised architecture of the Internet the layering of centralised administrative structures was introduced called client-server architecture.[260] The Domain Name

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[251] Ibid.
[252] NSF means the National Science Foundation.
[253] See "ICANN" in Glossary of Terms at p.20 of this thesis.
[254] Leiner, B., Cerf, V., Clark, D., Kahn, R., Kleinrock, L., Lynch, D., Postel, J., Roberts, L., and Wolff, S., *"A Brief History of the Internet"*, Internet Society (ISOC), December 2003, located at http://www.isoc.org/internet/history/brief.shtml (accessed on 19 February 2008).
[255] Strasser, M., *"Beyond Napster: How the Law Might Respond to a Changing Internet Architecture"*, 28 Northern Kentucky University Law Review 660, p.665.
[256] Ibid
[257] See definition of *"Open Architecture"* at Webopedia located at http://www.webopedia.com/TERM/O/open_architecture.html (accessed on 1 July 2008).
[258] Definition of *"What is an IP address"* at *How Stuff Works*, located at http://www.howstuffworks.com/question549.htm (accessed on 1 July 2008); See also Glossary of Terms at p.20 of this thesis.
[259] *See* ICANN, *About ICANN* located at http://www.icann.org/en/participate/what-icann-do.html (accessed May 23 2008) Classes of IP addresses have been allocated to Regional Internet Registries, which are responsible for particular geographic regions. "InterNIC", for example, is responsible for North America, "RIPE NCC" is responsible for Europe, and "AP—NIC" is responsible for the Asian Pacific region----and which allocate their allotted IP addressed to a number of Local Internet Registries operating within their perspective region. The Local Internet Registries, which usually operate on a national basis, in turn assign the IP addresses to Internet Service Providers ("ISPs"). *See* The Address Supporting Organisation, located at http://aso.icann.org/ (accessed May 23, 2008) and ICANN Accredited Registrars located at http://www.icann.org/en/registrars/accredited-list.html (accessed 10 June 2008).
[260] For explanation of "Client-server architecture" see Glossary of Terms at p.15 of this thesis.

System ("DNS")[261] system and the World Wide Web are two examples of the Internet's client-server architecture. As the Internet developed, it became evident that numerical IP addresses were problematic and an impractical method to recognise computers on a network.[262] As a result the DNS system was invented.[263]

Network Solutions is an example of a particular DNS registry administering the generic Top Level Domain ("gTLDs"). DNS registries permit operators of computers in a network to be assigned and allocated with domain names with a particular IP address.[264] Furthermore, each country has their own authority administering sub-level registries that allocate and assign Country Code Top Level Domains ("ccTLDs"). In Australia, the Australian Domain Name Administrator ("auDA") is the policy authority and industry self-regulatory body for the .au domain space.[265] Melbourne IT is an Australian DNS registry that assigns and allocates domain names for both gTLDs and ccTLDs to particular IP addresses.

The DNS system serves as a virtual phonebook to locate hostnames for computers rather than searching by numerical numbers for an IP address. For example, a user could search "www.property.com" instead of "109.62.154.101". Many companies using the Internet prefer to register their IP addresses with descriptive domain names to indicate the type of business services provided by them and to assist in easy recollection by users.[266]

Once a domain name has been assigned an IP address, a user can by typing a term such as "www.property.com" be routinely directed to that website to obtain the information they seek. The DNS assists the management of IP addresses and domain names on a centralised basis and facilitates searches and requests for IP addresses and domain names more effectively.[267]

The World Wide Web is conceptually different from the Internet. The Web (just like DNS) locates information by providing centralised platforms in which to access information over the

[261] For definition of "DNS" see Glossary of Terms at p.18 of this thesis.
[262] Strasser, M., op.cit. p.669.
[263] Ibid.
[264] Ibid.
[265] See AUDA, *About us*, located at http://www.auda.org.au/about/about-overview/ (accessed 30 December 2008).
[266] Strasser, M., op.cit.
[267] Ibid.

medium of the Internet.[268] The Web is an information sharing model to assist in disseminating information via the Internet.

Search engines are location information tools in the form of websites and they play a large part in assisting users to locate and access information.[269] The role of a search engine is to collect information on available content and documents located at other websites. Search engines utilise web crawlers to "spider the Web" by data mining and searching for metatags to trace pertinent information. Once information is traced it is then stored in indexed central databases and can be recalled on demand.[270]

By conducting search engine requests users can be directed to websites that will most probably contain the information they seek. In the case of music pirates looking for unauthorised copies of digital audio files on the Web, the search engine has become an extremely valuable location tool.[271]

3.4.2 The Relationship between P2P Networks and Internet Architecture

To a certain degree the Internet's architecture and the Web share similar attributes. The essence of the Web has always been a form of P2P network. The difference between the Web and P2P networks are that the Web still relies on a traditional client/server system whereby web servers are interconnected to one another.[272]

Initial P2P networks featured interconnected web servers ("Peers") with the addition of centralised tracking servers. The centralised tracking servers perform to provide a "matching" service for end users. The file transfer process is left to the end users. Napster was the first P2P network to use this approach.[273]

Principally, Napster was a P2P network built around sharing unauthorised music files. Napster also hosted a centralised tracking server to assist tracking users and files to assist in the file transfer process. The Napster architecture did not provide the actual process of file sharing, as

[268] Ibid, p.671.
[269] SeeWebopedia definition of "*Search Engine"* located at http://webopedia.internet.com/TERM/s/search_engine.html (accessed on 1 July 2008).
[270] Strasser, M., opcit.
[271] Ibid.
[272] Kidd, D., op.cit., pp.27-28.
[273] Ibid, p.28.

this was conducted at the end user level, but rather it assisted the end user in locating their search requests and directing the end user to the source. Napster's centralised structure and its participation in large scale copyright infringement led to its downfall when the court ordered it to pay copyright holders several millions of dollars.[274]

Instead of reducing the use of P2P networks, the Napster case drove a renewed interest in file sharing networks. This culminated in the development of different P2P architectures and led to the creation of decentralised networks. A decentralised network works on the premise that each user is connected to a small number of users that are online at any one time. Each user that is online is connected to its own directory of users and this continues until each user forms links with every other user in the network without the need for a centralised server to assist in this function.[275]

For an end user to conduct a search using a decentralised P2P network, a request is sent to its immediate list of directly connected users, the request is sent on to other users until the desired information is located in the network. The process of searching for files on decentralised P2P networks can be sluggish as the end user is delayed until all users of the network return back with their search results. With the more advanced P2P networks, by not requiring a central server to function and bypassing a possible point of failure, the network can remain operational at all times. P2P networks use either centralised or decentralised architectures or a mixture of both.

[274] Ibid.
[275] Ibid.

CHAPTER 4 – THE MUSIC BUSINESS AND PIRACY

4.1 THE BACKGROUND OF THE MUSIC BUSINESS AND PIRACY

This chapter will closely examine the music business in order to obtain an understanding of the music industry's history and motives for its litigiousness in the digital music piracy battle. This chapter will also analyse the extent of music piracy and the different types of available P2P software platforms.

4.1.1 Structure of the Music Business

The record industry generates billions of dollars each year which makes the music industry one of the largest businesses in the world. In 2007 it was reported that music was a US$29.92 billion dollar industry[276] down from US$33.45 billion in 2005.[277]

Today, the industry is comprised of a nucleus of Major and Independent labels, supported by a variety of industries feeding off their "coat-tails" that render highly specialised facilities and dedicated services to the recording labels.[278] The Major labels make up 74.2% of the total music market and account for about US$22.20 billion of world sales with the independent labels sharing 25.8% of the market which accounts for the other US$7.72 billion.[279]

According to the music industry these figures are on the decline due to the decreases in physical CD sales. Although increases in digital music sales have increased dramatically the gains in digital sales have not been able to offset the losses from poor CD sales.[280]

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[276] *IFPI's Recorded Music Sales 2007* figures located at http://www.ifpi.org/content/library/Recorded-music-sales-2007.pdf (accessed on 12 February 2008).
[277] *IFPI's The Recording Industries Commercial Piracy Report 2005,* p.13, located at http://www.ifpi.org/content/library/Piracy2005.pdf (accessed on 13 November 2008); see also *IFPI's The Recording Industries World Sales Report 2005 located at* http://www.ifpi.org/content/library/worldsales2004.pdf (accessed on 14 November 2008) and *IFPI's Interim 2005 Projections* located at http://www.ifpi.org/content/library/worldsales2005.pdf (accessed on 14 November 2008).
[278] Passman, D., *All You Need to Know About the Music Business*, New York, Free Press, 2003, pp.66-67.
[279] Holten, K., *"Universal extends music market share: report"*, Reuters.com, 3 April 2008, located at http://www.reuters.com/article/industryNews/idUSL0375895920080405 (accessed on 21 June 2008); See also IFPI, *"IFPI releases definitive statistics on global market for recorded music",* 2 August 2005, located at http://www.ifpi.org/content/section_news/20050802.html (accessed on 29 September 2008).
[280] Hefflinger, M., *"Report: Global Music Sales Down Overall; Digital Sales Up"*, Digital Media Wire, 6 July 2007, located at http://www.dmwmedia.com/news/2007/07/06/report-global-music-sales-down-overall-digital-sales-up (accessed on 27 September 2008).

4.1.2 Motive for Record Companies

The record business' primary commodity is music and as in any other business, it is driven by the need for profit. To continue to exist, the major and independent record companies have to derive significant profit from their enterprise to meet both the operational and promotional costs and to satisfy their shareholders via dividends.[281]

Before a record company can consider producing records or contracting artists a number of issues initially require consideration. Apart from artistic merit of an artist, the company's major question is: Will a record earn more than it costs to make?[282] The music industry can not make accurate predictions on the sales of an artist's record and is considered somewhat of a hit and miss industry.[283] The chances of success are increased if an artist is already well known and has a loyal following, however there is never any guarantee that an album will be successful regardless of how loyal a fan base has been.

4.1.2.1 Vertical Integration of the Music Business

Early on the music business realised the potential for the industry to grow if it aligned itself and interconnected with other entertainment mediums.[284] The record companies rich with content sought to maximise their profits utilising these resources and purposely expanded their activities into other entertainment sectors.[285]

An example of this is the recent popularity of television shows such as Pop Idol, X-Factor and Australian Idol.[286] In the past, many if not all, the contestants on these shows would never have been considered for a recording contract by the music industry. However, the exposure of the contestants via television makes them instant celebrities. An example is 2003's Australian Idol winner Guy Sebastian. In 2003, Guy Sebastian with "Angels brought me here" set a record for

[281] Galliway, T., and Kinnear, D., "*Free Ride: an institutionalist analysis of information in the Internet age"*, Vol. 36, Issue 2, Journal of Economic Issues, June 2002, p.441(7).
[282] Simpson, S., op.cit., p.318.
[283] Ibid.
[284] Ibid, p.323.
[285] Barrow, T., and Newby, J., *Inside the Music Business*, London, Routledge, 1996, p.7.
[286] Frere-Jones, S., *"Idolatry: Everybody's a Critic"*, The New Yorker, 19 May 2008, located at http://www.newyorker.com/arts/critics/musical/2008/05/19/080519crmu_music_frerejones?currentPage=1 (accessed on 7 July 2008).

the most singles sold by a debut Australian artist only being surpassed by Elton John's tribute song to Lady Diana "Candle in the Wind".[287]

Vertical integration enables popular music to become an international cultural phenomenon. Associated member companies of the same corporate group can:

(i) publish music;

(ii) sign artists to a contract;

(iii) record and release sound recordings;

(iv) sell hardware playback devices;

(v) organise synchronisation rights in the sound recordings for a film track and support the artist in films or television produced in associated studios or television networks; and

(vi) sell merchandise through their associated merchandising company.[288]

More recent examples of vertical integration can be illustrated by artists such as Eminem, Kylie Minogue and Madonna all appearing in recent movies and vice versa, with Gwyneth Paltrow and Huey Lewis recording a single and Nicole Kidman recording with Robbie Williams.[289]

4.1.3 The Record Companies

Inherently the music industry is a closed shop and secretive in nature. Due to the lack of public information available relating to the music industry in Australia much of the information in the

[287] Donovan, P., *"Delta Makes History"*, The Age, 2 December 2003, located at http://www.theage.com.au/articles/2003/12/01/1070127349539.html (accessed on 24 August 2008).
[288] Simpson, S., op.cit., p.324.
[289] Ackman, D., *"Eminem Goes the Extra 8 Mile"*, Forbes.com, 11 November 2002, located at http://www.forbes.com/2002/11/11/cx_da_1111topnews.html (accessed on 8 November 2008); see also Davidson, C., *"Boxed Lynch: 'Boxing Helena' news – Jennifer Lynch tells us about her new film and casting Madonna in the lead role"*, Entertainment Weekly, 7 December 1990, located at http://www.ew.com/ew/article/0,,318779,00.html (accessed on 8 November 2008). Madonna has appeared in approximately 20 motion pictures since 1979; See also Wearring, M., *"Kylie's life on Screen"*, News.com.au, 28 May 2008, located at http://www.news.com.au/entertainment/music/kylies-life-on-screen/story-e6frfn09-1111116462018 (accessed on 7 November 2008). Kylie Minogue has appeared in approximately 14 movies since 1985; See also Gallagher, W., *"Duets"*, BBC News, 31 October 2000, located at http://news.bbc.co.uk/2/hi/entertainment/992842.stm (accessed on 8 November 2008); See also BBC News, *"The Robbie Williams Phenomenon"*, BBC News, 13 January 2003, located at http://news.bbc.co.uk/2/hi/entertainment/1894211.stm (accessed on 28 August 2008).

following section is reliant and sourced from the insights of Simpson's book *Music Business*.[290] The record industry can be classified into two classes of record companies, they are:

1. Majors; and
2. Independents.

4.1.3.1 Majors and Independents

The Majors are global corporations with extensive networks of subsidiaries located in most countries around the world. The Majors have extensive catalogues and repertoires which have been gained through sourcing a variety of musical styles from their extensive networks in other countries.[291] The Majors are better equipped to influence, identify and predict trends in the market drawing on the advice from their extensive network. They are conglomerates and have set boundaries and strict guidelines to follow. The Majors tend to be associated with massive multinational companies, whose businesses have been built on marketing and selling entertainment media.[292] The Major labels in Australia are: Universal Music, Sony BMG, EMI, and Warner Music.

Independents are not restricted by the budgets and constraints of a Major label. By the very nature of their independency, there are advantages and disadvantages to being an independent. Independents have the advantage of having limitations imposed on their deal making but on the other hand, have the disadvantage of not being able to match the Major labels fiscal power and resources.[293]

4.1.3.2 Majors Structure

The local subsidiaries of the Major labels are required to source new artists to add to their repertoires. This in turn assists the Major labels to have access to their catalogues. The premise of the Major labels is that if they have access to more artists, records and diversity of music styles, the greater success of locating commercially successful recordings.[294]

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[290] Simpson, S., op.cit.
[291] Kulpa, A., "*Disturbing Yesterdays Media, Tomorrow: How Media Companies Mask Antiquated Operating Models with the Veil of Copyright"*, 16 Seton Hall J. Sports & Ent. L. 225, 2006, p.233.
[292] Welsh, J., op.cit., p.1503.
[293] Osborn, G., and Greenfield, S., *"Understanding Commercial Music Contracts: The Place of Contractual Theory"*, Journal of Contract Law, Vol. 23, 2007, p.48.
[294] Simpson, S., op.cit., p.326.

The Majors' Australian subsidiaries have considerable autonomy, despite being answerable to the overseas head office. However, they are still bound by head office's rules, guidelines and instructions but apart from that they can principally decide their own specific approach for achieving acceptable results.[295]

Every local company is considered by its head office as a prospective location to earn revenue and are governed by strict company policy, yearly budgets, business and marketing plans.[296]

4.1.4 The Major Labels

It is important at this stage in the thesis to profile the major players in the Australian music industry and their origins. It is difficult to estimate at any one time how many Independent labels could be operating. Because of the fickle nature of the music industry, some independents can last for years, others do not make it and discontinue operations altogether.[297] Therefore, it would be pointless here to examine and profile any particular Independent label. However, a short description of an Independent label will be provided later in the chapter to demonstrate their place in the music industry's structure.

4.1.4.1 EMI

EMI's history dates back to William Owen in 1897 when he set up the Gramophone Company in the United Kingdom.[298]

The Gramophone Company was purchased by the US Victor Talking Machine Company and became a subsidiary company in 1920. The US Victor Talking Machine Company amalgamated with Radio Corporation of America ("RCA") in 1929 and maintained the RCA name. When the great depression started affecting the recording industry, RCA then amalgamated their subsidiary the Gramophone Company with the Columbia Gramophone Company and the Parlophone Company in 1931 to form Electric and Music Industries Ltd.[299] In 1934, Electric and Music Industries was forced to sell the Columbia Gramophone Company due to an anti-trust action

[295] Ibid, pp.326-327.
[296] Ibid, p.326.
[297] Ibid, p335.
[298] Information sourced from Caslon Analystics an Australian internet research, analysis and strategies consultancy, located at http://www.ketupa.net/emi.htm (accessed on 7 August 2008).
[299] McDonald, H., *"EMI",* About.com, located at http://musicians.about.com/od/companyprofiles/p/EMI.htm (accessed on 9 October 2008).

bought against it by its US competitors. In 1935, RCA sold its interest in Electric and Music Industries. During the 1930's and 1940's, Electric and Music Industries developed the first system to record and playback stereo sound, the first electric television and radar systems.[300]

In the 1950's Electric and Music Industries purchased Capitol Records, released its first 33rpm LP record and recorded Cliff Richard. In the 1960's Electric Music Industries acquired publishing and mail order operations, recorded the Beatles and licensed several US labels.[301]

In the 1970's EMI purchased a string of Movie companies such as ABPC ("Associated British Picture Corporation"), the British Lion Film Corporation and a group of cinemas making movies like the "Deer Hunter" and "Murder on the Orient Express". These movie company purchases resulted in huge losses to EMI. Also during this period, EMI recorded the Sex Pistols, Pink Floyd, Electric Light Orchestra and Queen, purchased United Artists Records Group and Liberty Records, purchased more music publishing companies and changed its name to EMI Ltd from Electric and Music Industries.[302] EMI in 1979 combined with Thorn an electronics manufacturer to establish Thorn-EMI.[303]

In the 1980's, Thorn-EMI sold its movie distribution business, signed artists such as Deep Purple and Led Zeppelin and continued to grow its diverse interests.

In the 1990's Thorn-EMI purchased the Food Music Group for £475,000 and the Dillons and Hatchards book shops for £56 million. Thorn-EMI purchased the Virgin Music Group from Richard Branson and Fujisankei for an estimated £560 million in 1992 and purchased Chrysalis Music.[304] The 1990's also saw the end of the Thorn-EMI brand as the electrics business Thorn was demerged in 1996. EMI rebranded the company to the EMI Group and signed further artists such as the Spice Girls and Robbie Williams. Also in the late 1990's EMI sold the HMV retail giant, along with the Dillon's bookshop assets for £500million to HMV Media. EMI as part of the deal took script and cash for the sale. EMI retained a 42.5% shareholding in HMV Media and £382 million in cash.[305]

[300] Information sourced from Caslon Analytics, op.cit.
[301] Ibid.
[302] Simpson, S., op.cit., p.328.
[303] Ibid.
[304] Information sourced from Caslon Analytics, op.cit.
[305] Ibid.

In 2000 negotiations for an acquisition by Bertelsmann Music Group did not progress. In 2002 HMV was publicly floated and EMI's stake in HMV was reduced to 14.5%. In the same year EMI bought Mute records for £42million and sold its 15.3% interest in VIVA Media to AOL Time Warner. EMI is the second largest global music publisher with over 100 record labels in its group. EMI has always retained an extensive classical catalogue which has provided the company with a safeguard against downturns in its business.

In 2004, EMI closed or sold its CD and DVD manufacturing assets in the US and Europe. Also, EMI sold its share of its joint venture operations with Warner Music Group in the Australian CD manufacturing operation.

According to EMI's Annual report ending 31 March 2008, in that year it made revenue from music sales worldwide of US$3.26 billion.[306]

In 2006, EMI made a US$4.6 billion bid to acquire Warner Music Group which resulted in Warner Music Group returning the offer for the same amount to acquire EMI. EMI refused the offer and negotiations failed.

On the 17 August 2007, EMI Group sold its assets to Maltby Capital Limited for US$8.37 billion after posting a significant loss in its operations in 2007. The company was subsequently delisted as a public company and is now operates as a private company.

4.1.4.2 The Warner Music Group

In 1958, the famous Warner brothers in Hollywood established their own record company division from the Warner Brothers movie studio.[307] Later in 1963, Warners purchased Reprise Records founded by Frank Sinatra and they operated Reprise Records in conjunction with the Warner label. In 1967, Jack Warner sold his stake in Warners/Reprise Records to Seven Arts for US$32 million. Seven Arts then merged with Warner Bros to become Warner-Seven Arts. In that same year, Warner-Seven Arts purchased Atlantic records which remain as one of Warners

[306] EMI Annual Report 2008, located at http://www.emigroup.com/NR/rdonlyres/0753D5E3-20C6-433E-A616-D1BC4482BB42/1662/MaltbyCapitalLimitedAnnualReviewStatements1.pdf (accessed on 3 September 2008).
[307] McDonald, H., op.cit.

oldest labels. In 1969, Warner-Seven Arts disposed of their record and music arm to Kinney Corporation which later renamed it as Warner Communications.[308]

Warners grew very quickly because it adopted an acquisition and combination policy which it used to great effect when it purchased several labels such as Elektra and Asylum records.[309] In the 1970's Warner Communications combined the record labels of Warner, Elektra and Atlantic as a sub-label to be known by the acronym WEA meaning Warner-Elektra-Atlantic. This label was to be used more extensively outside the USA. In the mid 1980's, Warner Communications purchased Chappell Music Publishing (one of the largest music publishing houses in the US) to improve their music publishing business.[310]

Warners started operations in Australia in 1970. It did not have its own pressing facilities in Australia, although it had large plants in North America and Europe. However, the company began its own distribution in 1972. In 1989 Time-Life the huge publishing company merged with Warner Communications to become Time Warner. In 2000 Time Warner merged with Internet giant America Online ("AOL") to become AOL Time Warner.[311]

Apart from its music and publishing businesses, Warners had become a hugely successful company based on its direct interests in the digital media entertainment, online internet, computer gaming and movie production and distribution sectors. Warner's involvement in these sectors provided direction over its creative and distribution networks.

On 16 October 2003, the company changed its name back from AOL Time Warner Inc. to Time Warner Inc. On 1 March 2004, the company sold its record and music publishing operations for US$2.6 billion to a private investment group.[312] The sale terms provided Time Warner with an option to purchase a minority interest in the Warner Music Group.[313] On 24 October 2003, the

[308] Simpson, S., op.cit., p.332.
[309] Ibid.
[310] Information sourced from Caslon Analystics an Australian internet research, analysis and strategies consultancy, located at http://www.ketupa.net/time.htm (accessed on 7 August 2008).
[311] Ibid.
[312] See Warner Music Group Press Release, *"Investor Group Led By Thomas H. Lee Partners, Edgar Bronfman, Jr., Bain Capital And Providence Equity Partners Completes Purchase Of Warner Music Group From Time Warner"*, located at http://investors.wmg.com/phoenix.zhtml?c=182480&p=irol-newsArticle&ID=708718&highlight= (accessed on 9 November 2008).
[313] Time Warner's Annual Report 2003, located at http://ir.timewarner.com/downloads/2003ar.pdf (accessed on 9 August 2004).

Company disposed of its entire music operations when it sold its CD pressing, packaging and distribution operations for US1.05 billion.[314]

However, Warner Music Group continues to operate as a major under this name. In 2005, Warner Music Group took the company public and floated the company on the New York Stock Exchange to raise US$750 million in capital.[315]

In 2006, Warner Music Group and EMI were embroiled in a bitter takeover bid for one another. Both EMI and Warner Music Group rejected a US$4.6 billion bid for each other and did not progress negotiations any further.[316]

According to Warner Music Group's Annual report ending 31 March 2008, in that year it made revenue from music sales worldwide of US$4.31 billion dollars.[317]

4.1.4.3 BMG

Bertelsmann Music Group's ("BMG") history can be traced back to Eldridge Johnson and Emile Berliner (the inventor of the flat record) when they established the Victor Talking Machine Company in 1901.[318]

In 1929, The Radio Corporation of America ("RCA") purchased the company and retained the RCA name. RCA was an electrical goods manufacturer and distributor particularly in radios, television and home appliance equipment. RCA's purpose for the purchase of a record business was to complement and expand its already successful home appliance market.[319]

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[314] Ibid.
[315] Leeds, J., *"Warner Music Goes Public with Scaled-back Stock Offering"*, New York Times, 12 May 2005, located at http://www.nytimes.com/2005/05/11/business/worldbusiness/11iht-warner.html (accessed on 2 February 2008).
[316] Feltham, C., *"A New Tune for EMI?: Guy Hands' Terra Firma is buying the ailing music giant, but can he let the good times roll again"*, The Independent, 19 July 2007, located at http://www.independent.co.uk/news/business/analysis-and-features/a-new-tune-for-emi-457847.html (accessed on 15 September 2008).
[317] See Warner Music Group Annual Report to 31 March 2008, located at http://library.corporate-ir.net/library/18/182/182480/items/321763/DDD96E70-D0DD-47EF-856A-A324466BE398_warner10K.pdf (accessed on 21 October 2008).
[318] Simpson, S., op.cit., p.330.
[319] Ibid.

In the mid 1980's RCA was sold to the German based Bertelsmann Group and was renamed the Bertelsmann Music Group. Bertelsmann, prior to the sale, had acquired interests in the publishing, printing, film, broadcasting and television industries.[320]

In mid-2004, BMG announced it would be merging in August 2004 with Sony as a 50/50 joint venture with the new label being called Sony BMG, thereby reducing the Big Five to the Big Four.[321]

According to BMG's 2005 Annual Report, revenue from music sales worldwide for the financial year was recorded at US$2.15 billion dollars, a substantial decrease from the previous financial year.[322] This loss was attributed to the US$1.5 billion cost of the joint venture with Sony Music in 2004.

According to BMG's Annual Report 2007, its stake of the Sony BMG joint venture netted revenue of total music sales of US$2.3 billion (€1.456 billion).[323]

On 5 August 2008, Sony and BMG announced the end of their joint venture and Sony purchased BMG's 50% stake in the company for an undisclosed sum.

4.1.4.4 Sony Music

Sony Music Entertainment's beginnings can be traced back to 1887 when Alexander Graham Bell formed the Columbia Phonograph Company. The Columbia Broadcasting System ("CBS") purchased the company in 1938.

In the 1940's, CBS launched its edition of the 33 rpm LP record and its marketing approach of new artists made the company extremely profitable.[324] In 1968, CBS formed a joint venture with Sony (a Japanese electrical goods manufacturer) and it was called CBS/Sony Records. Sony

[320] Information sourced from Caslon Analytics an Australian internet research, analysis and strategies consultancy, located at http://www.ketupa.net/bertelsmann.htm (accessed on 7 August 2008).
[321] See Sony Corporation of America Press Release, *"Sony Music Entertainment and BMG unite to create Sony BMG Music Entertainment"*, 5 August 2004, located at http://www.sony.com/SCA/press/040806.shtml (accessed on 29 November 2008).
[322] See BMG's Annual Report 2004 at http://www.investis.com/reports/btg_ar_2004_en/report.php?type=1 (accessed on 6 October 2005).
[323] See BMG's Annual Report 2007 at http://reports2.equitystory.com/cgi-bin/show.ssp?companyName=bertelsmann&report_id=gb-2007&language=English (accessed on 4 November 200).
[324] Ibid.

acquired CBS Records joint venture stake in 1987 for an estimated US$2 billion and in 1991 renamed the company Sony Music Entertainment.[325]

Sony's Australian operations date back to 1936. An Australian company called Featuradio Sound Productions was involved in recording and pressing vinyl records for radio stations. A competitor, the Australian Record Company which was involved in the same business merged with Featuradio Sound Productions in 1938. The joint venture agreed to retain the name Australian Record Company ("ARC").

ARC was assisted by the distribution channels provided by Phillips. In 1951 the ARC purchased two other labels. These were London Records and Capitol Records. In 1956 the ARC sold its rights in Capitol Records to EMI. In 1960, the board of ARC resigned after the closure of its Television studio. The Board was reassembled with the majority of music executives of Columbia Records in the USA which took a controlling stake in the company. In 1960, ARC acquired the Warner Brothers and United Artists record labels from the US. Other labels acquired during the 1960's and 1970 have included the Chess, Hickory and Kapp record labels.

On 17 October 1977, ARC rebranded to CBS Records. The business grew over the next 14 years into what was, for many years, the biggest of the Majors. CBS Records had its own record pressing plant, supplying its own needs and fulfilling orders from the other Majors and individual customers.[326]

In 1987, when Sony purchased the joint venture stake in CBS Records from the Columbia Phonograph Company it included CBS Records Australia Limited.[327]

In 1991, Sony after its global purchase of CBS Records and in line with it global branding strategy changed the name of the ARC to Sony Music Australia Pty Ltd. In the middle of 2004 Sony and BMG announced their merger in a new joint venture to be called Sony BMG. Both Sony and BMG would own 50 percent of the new venture entity. After the merger between Sony Music and BMG on 5 August 2004 music sales for Sony dropped 43.4%. According to Sony's

[325] Simpson, S., p.330.
[326] Ibid, p.329.
[327] Information sourced from Caslon Analystics an Australian internet research, analysis and strategies consultancy located at http://www.ketupa.net/sony2.htm (accessed on 7 August 2005).

Annual report for 2005, in that year it made music sales worldwide of US$4.92 billion.[328] Sony claims its losses are attributable to the costs of the joint venture which were approximately US$2.5 billion and slow sales. It should be noted that Sony BMG did not licence their content to such services as iTunes until the early part of 2006 and therefore missed the revenues from licensing.

In August 2008, Sony and BMG agreed to dissolve their joint venture and Sony agreed to acquire the 50% stake of BMG for US$1.2 billion. The company changed its name from Sony BMG back to Sony Music Entertainment.

Sony in their Annual Report for 2008 made revenue from music sales worldwide of approximately US$3.70 billion (¥382.2 billion) (which is comprised of sales from Sony BMG joint venture, Sony Music Japan Entertainment and sales under the Sony Music Entertainment label itself).[329]

4.1.4.5 Universal Music Group

Universal Music Group traces its history back to 1934 with the formation of Decca Records in the US. Music Corporation of America Inc. ("MCA") purchased Decca Records in 1962.

At the same time in 1962, the electrical goods giant Philips entered into a joint venture with another electrical goods manufacturer Siemens AG. Before the merger, both companies had prior existing record labels of their own. After the merger, the companies amalgamated their record operations to form Polygram and Polydor.[330] Similar to the other Major labels, in the 1970's Polygram increased its growth by acquiring numerous Independent record companies and other labels.[331]

[328] Sony Corporation Annual Report 2005 at http://www.sony.net/SonyInfo/IR/financial/ar/2005/qfhh7c000005z5so-att/SonyAR05-E.pdf (accessed on 27 July 2005).
[329] Sony Corporation Annual Report 2008 at http://www.sony.net/SonyInfo/IR/financial/ar/2008/qfhh7c00000htn6x-att/SonyAR08-E.pdf (accessed 19 December 2008).
[330] Information sourced from Caslon Analystics an Australian internet research, analysis and strategies consultancy located at http://www.ketupa.net/vivendi.htm (accessed on 7 August 2005).
[331] Ibid.

Polygram acquired the Chappell Music publishing group in 1968 and sold it to Warners in 1987 for US$275 million. In 1989, Polygram purchased the A&M and Island record labels. Polygram also established Polygram Music Publishing in the 1980's.[332]

The Australian division of Polygram commenced business at the beginning of the 1960's. In the mid 1970's it purchased the Australian based Astor Record label. In 1995 Seagram purchased an 80% stake in MCA and renamed the music division to Universal Music Group. In 1998, Seagram also acquired Polygram and placed it with the Universal Music Group assets.[333]

Vivendi, on the other hand, started as a small French company in 1853 known as the Compagnie Générale des Eaux ("CGE"). CGE commenced its operations as a water supply company and diversified its interests into transport, energy, construction, communications, property development, energy and waste management.[334]

In 1983, CGE created a joint venture with the Havas media group to launch the Canal pay television business.[335] CGE became the major stake holder in Havas Media Group. In 1998, the group was renamed Vivendi.[336] In 2000, Vivendi acquired Seagram which owned the Universal and Polygram music divisions for approximately US$34 billion.[337] In that same year, the corporate group renamed to Vivendi Universal and is headquartered in Paris, France.[338]

In 2006 a corporate decision was made to drop "Universal" from the Vivendi Universal name and the parent holding company is now known only as Vivendi. The wholly owned subsidiary of Vivendi, named Universal Music Group remains.[339]

According to Vivendi's Annual report for 2008, it made revenue music sales worldwide of US$8.62 billion dollars (€5.89 billion).[340]

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[332] Ibid.
[333] Simpson, S., op.cit., p.331.
[334] Information sourced from Caslon Analytics an Australian internet research, analysis and strategies consultancy, located at http://www.ketupa.net/vivendi.htm (accessed on 7 August 2005).
[335] Ibid.
[336] Ibid.
[337] Simpson, S., op.cit., p.332.
[338] See Caslon Analytics, op.cit.
[339] Olsen, P., "*Fourtou's Vivendi To Drop 'Universal'?"*, Forbes.com, 28 February 2006, located at http://www.forbes.com/2006/02/28/vivendi-universal-rebrand-cx_po_0228autofacescan04.html (accessed on 9 December 2008).

4.1.4.6 Festival Mushroom Records

News Corporation through its subsidiary News Ltd previously owned the Festival Records label when it acquired the business in 1961. In 1993, News Ltd purchased a 49% stake of Mushroom Records. In 1998, News Ltd purchased the final 51% of Mushroom Records from Michael Gudinski for AU$43 million and merged the Festival and Mushroom record labels and Mushroom Distribution Services.[341]

By October 2005, Festival Mushroom records went into insolvency and ceased to trade. Later that month, Warner Music Group announced its acquisition of Festival Mushroom records[342] and the acquisition was finalised on 15 November 2005 for a purchase price estimated between AU$5- $10 million.[343] The Festival Mushroom record label no longer exists.

4.1.4.7 ABC

The Australian Broadcasting Corporation ("ABC") is a public broadcaster which was publically funded by the Australian Government. The ABC was more commonly known for its television and radio broadcasting, classical recordings and support and operations of Symphony Orchestras. Stakeholders (the Australian Government) placed pressure on the ABC to become financially self sufficient.[344] This pressure forced the ABC to explore different business opportunities. In the 1980's, the ABC identified the creation of its own record label as a way to meet that objective.[345] Originally distributed by Festival records (later Festival Mushroom), it moved its distribution to Polygram (later EMI).[346]

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[340] See Vivendi Annual Report 2008 located at http://www.vivendi.com/vivendi/IMG/pdf/20090408_annual_report_en_080409.pdf (accessed on 8 October 2008).
[341] Simpson, S., op.cit., pp.333-334.
[342] Higgins, D., *"A Long Way to the Bottom"*, Sydney Morning Herald, 9 November 2005, located at http://www.smh.com.au/articles/2005/11/09/1131407684176.html (accessed on 10 September 2008).
[343] Eliezer, C., "*Warner Music Buys Aussie Indie FMR"*, Billboardbiz, 20 October 2005, located at http://www.allbusiness.com/retail-trade/miscellaneous-retail-retail-stores-not/4381323-1.html (accessed on 17 November 2008); See also Cashmere, P., *"Warner Music Buys Festival Mushroom"*, Undercover Media Pty Ltd, 20 October 2005, located at http://www.undercover.com.au/news/2005/octo5/20051020_fmr.html (accessed on 7 November 2005).
[344] Simpson, S., op.cit., p.334
[345] See ABC Commercial located at http://abccommercial.com.au/ (accessed on 15 December 2008).
[346]Simpson, S., op.cit.

The ABC created a considerable repertoire of music styles particularly in jazz and classical sound recordings. Its recent entry into the country music area was also successful.[347]

The ABC is an unusual record company in several ways, not least because it is also a broadcaster, so it has little in common with the other members of the recording industry. The ABC is also a retailer, through its chain of ABC shops. Its Triple-J network has already helped shape popular music tastes in Australia and has been extremely successful.[348]

4.1.5 The Independent Labels

There is no precise way of defining the characteristics that make Independent record labels different from those of a Major label. Even that distinction may be misleading because some Major labels provide funding to Independents in return for exclusive distribution rights.[349]

However, the Independent labels do not like being compared with the way the Majors do business and will go to extreme lengths to emphasise the differences between them. Wherever possible they would prefer to be considered independent and disassociated from the Majors.[350] Independents are small, lean organisations with fewer staff, financial resources and overheads than the Major labels. Because they are lean operations, Independent labels can react swiftly to recognise new musical styles and trends and release their music before the Majors can consider it commercially viable or marketable to do so.[351] A further distinction and benefit Independent labels have over the Major labels, is that they can recoup their investments sooner from comparatively smaller number of sales.[352]

Independents tend to attract artists that wish to maintain control over the artistic and creative direction of their recordings.[353] Independent labels also seem to draw artists who have niche unconventional music styles where they feel uneasy being portrayed as 'mainstream' and are not

[347] See explanation of ABC's Commercial activities at http://abccommercial.com.au/ (accessed on 15 December 2008)
[348] See ABC, *"What is Triple J?"*, located at http://www.abc.net.au/triplej/about/ (accessed on 16 December 2008).
[349] Simpson, S., op.cit., p.335.
[350] Osborn, G., and Greenfield, S., op.cit., p.48.
[351] Simpson, S., op.cit.
[352] Passman, D., *All You Need to Know About the Music Business*, New York, Free Press, 2003, p.66.
[353] Ibid.

willing to be associated with a Major label. [354] One of the largest independent labels in Australia is Shock Records based in Melbourne.[355]

[354] Simpson, S., op.cit.. p.335.
[355] See Shock Records website at http://www.shock.com.au (accessed on 19 November 2008).

4.2 THE MUSIC INDUSTRY'S CHANGING BUSINESS MODEL

4.2.1 The Traditional Business Model

The music industry's business success over the past century has centred on its ability to control the distribution of music.[356] Continuing the music industry's control in this model is the artists' perception that in order to derive a livelihood in the music business they traditionally have to follow the course of penning songs, making demo tapes and playing at live gigs with the ambition that one day they will get discovered by a Major label.[357]

The role of a talent scout or Artist and Repertoire ("A&R")[358] manager is to discover new artists and if they and their music meets the record company's set guidelines and quality standards, then they may be offered a recording contract.[359] Major labels do not necessarily make decisions solely around the quality of the music. Other factors such as the artists appearance, attitude, presentation and sell-ability go a long way in the decision making process to sign an artist to a contract. From an artist's perspective, the Major labels offer them the best chance of success in the music business due to their expertise and resources to market them, manufacture their CDs, distribute their music and provide A&R and Public Relations management support.[360]

The key driver in the music industry's traditional business model has been the current belief that there is only one choice for musicians to realise their goals to be successful and that is through a Major label.[361] The motives for Artists can be diverse and complicated but they are all driven by their own individual creativity and having their music appreciated by the public becomes essential and gratifying. Musicians become programmed with the concept that they have to sign a record company contract to become successful in the music business.[362] They only have to see other artists' success with the Major labels to convince them of this. The undeniable lure of fame, fortune and celebrity is the driver to sign with the labels because they are deemed the only

[356] Tussey, D., *"Music at the Edge of Chaos: A Complex Systems Perspective on File Sharing"*, 37 Loy. U. Chi. L.J. 147, 2005-2006, p.166.
[357] Cardi, W., *"Uber-Middleman: Reshaping the Broken Landscape of Music Copyright"*, 92 Iowa L. Rev. 835, 2006-2007, p.840.
[358] For definition of A&R see Glossary of Terms at p.13 of this thesis.
[359] Simpson, S., op.cit., p.339.
[360] Ibid, p.340.
[361] Osborn, G., and Greenfield, S., op.cit., p.13.
[362] Welsh, J., op.cit., p.1505.

alternatives available for musicians to reach their dreams.[363] The reality is that many artists never achieve these dizzying heights, and those artists that do, are a select few.

The expensive elements of the traditional business model for the Major labels comprise the recording, manufacturing, establishing distribution channels, marketing the artist and the music, expanding the fan base and driving consumer demand.[364] For new artists to achieve both national and international stardom, Major labels, agents, promoters and other third parties are required to invest large sums of money in them. The required investment to make an act successful can only be provided by the Major labels that benefit by having the economies of scale and competitive advantage over their rivals, being the Independents.[365]

Dating back to the 1900's, the music and technology companies continued to evolve through constant acquisitions, mergers, demergers, partnerships, joint ventures, industry consolidation and reconsolidations in order to create the "Big Four" Major labels.

A more recent example of the music industry's constant evolution occurred at the end of 2004, when Sony merged with BMG to become the second largest music company. The Major labels are dominant, powerful and enormously influential over the majority of music that is produced, released and distributed.[366]

> *"Contemporary popular music is a mass cultural phenomenon involving the large-scale national and international distribution of millions of recordings."*[367]

At the core of the industry is the purchase and assignment of copyright and sound recording rights from the artists to publishers and the music labels.[368] The ownership from the assignment of these rights from artists is the wealth of the industry and the way the industry derives its

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[363] Economist.com, *"The Music Industry: Music's Brighter Future"*, Economist.com, 28 October 2004, located at http://www.economist.com/business/displayStory.cfm?story_id=3329169 (accessed on 11 January 2008).
[364] Mali, V., *"An alternative Operating Model for the Record Industry Based on the Development and Application of Non-Traditional Financial Models"*, 15 UCLA Ent. L. Rev. 127, 2008, pp.132-133.
[365] Fogarty, P., op.cit., p.144.
[366] Welsh, J., op.cit., p.1503.
[367] Swiss, T., *Key Concepts for Popular Music and Culture: New Essays*, Basil Blackwell Publishers, 1999.
[368] Welsh, J., op.cit., pp.1506-1507; See also Garsek, Z., *"Napster Through the Scope of Property and Personhood: Leaving Artists Incomplete People"*, 19 Cardozo Arts & Entertainment Law Journal 205, 2001, p.212.

profit.[369] Therefore, the record labels and publishers are the largest commercial exploiters of recording artists, writers, composers and lyricists requiring them to make commercial contracts in order to take advantage of their works. Generally, as a trade off by the recording industry for the rights to commercially exploit their music, artists usually receive a monetary advance which is required to be paid out first by retaining from the artists royalties that proportion of profit necessary to repay the advance from the sales of the music.[370] In some cases, the artists do not make anything from the music after the recording companies have taken their share.[371]

The Major labels have been, over the last century, one of the most dominant industries in the market place. They could pick and choose which artists would be successful by controlling the distribution network to the masses.[372] The Majors have also been responsible for dictating the trends in popular culture. Many of the Major labels owned radio broadcasting stations and video production units to aid in the control and distribution of the media.

The Major labels constitute over seventy percent of the recording industry. The other thirty percent is made up of independent labels, most of which use Major labels to distribute their music.[373] Over the past 40 years the Major labels have built their business around profit, power and control.

4.2.1.1 The effects of technology on the traditional business model

From its early beginnings, the music industry has been shaped by technological advancements. With the emergence of the Internet and improving bandwidth and digital technologies, the Major labels realise the potential value to be unlocked through digital distribution.

Therefore, the Internet offers both risks and potential rewards to the value of the Major labels investment in the copyright rights of their music. The Major labels share approximately seventy percent of a potential US$30 billion dollar industry and this amounts to a large degree of money, control and muscle. The Major labels will not surrender easily their dominance in the very market that they have built over the last century and this can be illustrated in the numerous

[369] Richards, B., *"The Times They are a-Changin: A Legal Perspective on How the Internet is Changing the Way We Buy, Sell, and Steal Music"*, 7 Journal of Intellectual Property Law 421, Spring 2000, p.432.
[370] Welsh, J., op.cit., p.1508.
[371] Ibid.
[372]Richards, B., p.451.
[373] Passman, D., op.cit., p.65.

litigation campaigns waged against music pirates that have marred the digital environment for the past 15 years.[374] The Major labels accept digital music distribution's potential as a growth market but are determined and take very seriously the threat to their market position that unauthorised digital music distribution poses.[375]

The music industry has historically been slow to adapt to new technology.[376] As Hilary Rosen the President and CEO of RIAA acknowledged:

> *"There's no question the music fan beat the industry to music online. Now we're trying to catch up."*[377]

However, the traditional business model of manufacturing, packaging, shipping and delivering records to stores is now on the decline and digital music distribution across the Internet is on the incline. The Major labels have seen their traditional business model slip away with digital distribution via P2P networks becoming its successor. This caused the music industry to embark upon its battle with the music P2P file sharing services.[378] The music industry has blamed piracy for its decline in sales but it is just as concerned about control over its current models of promoting and distributing music.[379]

It could be argued that the music industry attempts to stifle and slow innovation to better protect its existing market position. Whenever there is a new technological model created which threatens the commercial dominance of the Major labels, the Major labels litigate to prevent it from operating. On the other hand, from the music industry's perspective, to not litigate would be a capitulation to the alternative of systemic copyright infringement. Recent examples of the Major labels litigious actions against commercially successful P2P software providers post *Napster* include *MGM Studios v Grokster Ltd* [380]and *Universal v Sharman*.[381] The outcomes of these decisions are more thoroughly explained in Chapter 5.

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[374] See Chapter 4 of the thesis.
[375] Warner, B., *"Music Execs: Downloads, Lawsuits to Propel Recovery"*, Reuters, 22 January 2004, located at http://www.totaltele.com/view.aspx?ID=379250 (accessed on 22 April 2008).
[376] Henriquez, R., *"Facing the Music on the Internet: Identifying Divergent Strategies for Different Segments of the Music Industry in Approaching Digital Distribution"*, 7 UCLA Entertainment Law Review 57, Fall 1999, p.59.
[377] Jensen, J., *"Everything You Wanted to Know about MP3"***,** Entertainment Weekly, 12 March 1999, p.2.
[378] Gallaway, T., and Kinnear, D., op.cit.
[379] Ibid.
[380] *MGM Studios, Inc. v Grokster Ltd* 125 S.Ct.2764 (2005).

4.2.2 The Digital Distribution Model

The digital distribution model evolved from the Major labels transitioning from their business model of purely fighting copyright infringement to then developing a broad based strategy to combat copyright infringement to later developing internet alternative models.

The music, retail and technology companies have adopted a myriad of strategies calculated at typical music consumers to persuade them to cease acquiring unauthorised copyrighted music from the web.[382] The set of strategies have included high profile law suits, lobbying for changes in legislation, incorporating technological and proprietary measures and providing a variety of business and pricing models (whether proprietary or not) for a consumer to choose from.[383]

The Major labels initially pursued a business model to stamp out digital distribution completely without deploying an alternative legitimate digital distribution model of their own. Currently, the music industry now follows a holistic approach to stamp out illegitimate digital distribution of music. The music industry's business model has adapted to now be one that confronts the MP3 piracy issue on all levels.[384]

Firstly, the music industry lobbied politicians, courts and enforcement agencies to put in place laws sufficient to protect the music industry from unauthorised digital distribution of copyrighted music.[385] Secondly, the music industry sued the operators of P2P networks for copyright infringement.[386] Thirdly, the music industry launched a spate of lawsuits against individual file swappers and Internet Service Providers ("ISP's").[387] Fourthly, the Major labels worked with a number of companies to establish secure music platforms and instituted technological protection

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[381] *Universal Music Australia Pty Ltd v. Sharman License Holdings* [2005] FCA 1242.
[382] BBC News, *"Web music piracy fight 'working'"*, BBC News, 22 January 2004, located at http://news.bbc.co.uk/go/pr/fr/-/2/hi/entertainment/3419735.stm (accessed on 5 February 2008).
[383] Yu, P., *"P2P and the Future of Private Copying"*, 76 U. Col. L. Rev. 653, 2005, p.658.
[384] Reynolds, D., *"The RIAA Litigation War on File Sharing and Alternatives more Compatible with Public Morality"*, 9 Minn. J.L. Sci. & Tech. 977, 2008, p.978.
[385] Johns, A., *"Pop music pirate hunters"*, Daedalus, Vol. 131, Issue 2, Spring 2002, p.67.
[386] Rogers, B., *"Has the Internet Gone Beyond the Reach of Copyright Legislation? A&M Records, Inc v. Napster, Inc."*, 69 University of Cincinnati Law Review 1339, Summer 2001, p.1365.
[387] Bishop, A., *"Illegal P2P File Sharing on College Campuses – What's the Solution?"*, 10 Vand. J. Ent & Tech. L. 515, 2007-2008, p.515; see Borland, J., *"RIAA files 80 new file-swapping suits"*, CNET News, 31 October 2003, located at http://news.cnet.com/2100-1027_3-5099738.html (accessed on 10 November 2008); see also BBC News, *"Music Industry sues file-sharers"*, BBC News, 21 January 2004, located at http://news.bbc.co.uk/go/pr/fr/-/2/hi/entertainment/3418057.stm (accessed on 2 March 2008); See also meaning of "ISP" in Glossary of Terms at p.21 of this thesis.

measures for CDs and music files.[388] Finally, the record companies offered reduced prices, legitimate digital services and a range of enhanced features that could only be retrieved by purchasing a legitimate CD (i.e. bonus tracks, video and special content).[389]

No one strategy had been independently successful and none were definitive solutions in the battle against digital music piracy.

The popularity and availability of unauthorised online digital music files grew very rapidly between 1998 and 2003. In order to combat this threat the music industry attempted to move away from the traditional business model to a digital distribution model in order to protect its profits and remain competitive.[390]

The music industry's spate of successful lawsuits against P2P file sharing services have been claimed by the Major labels as a major victory against P2P and file sharing.[391] The music industry highlighted that the aim of the lawsuits was not to stop digital music file technology but to ensure that digital music remained online on their own conditions. However, what was abundantly clear was that the music industry, based on their rights under copyright, sought to exercise and legitimise control of digital audio technology on the Internet.[392] The music industry's laissez faire approach and reaction to digital music compression software technology was their initial downfall as they failed to respond quickly to the threat of digital music file technology and to create and establish an alternative legitimate digital music industry online for themselves.

However, the circumstances of the market are now different. Although, RIAA have claimed to have had a decisive impact on educating the consumer through high profile lawsuits against P2Ps

[388] Thomas, A., *"Online Music Piracy, Anonymity and Copyright Protection"*, Entertainment Law Review, Issue 1, 2001, p.3.
[389] Brown, K., *"If You Can't Fight 'Em, Join 'Em - Industry Trend or Event"*, Cable World, 21 February 2000, located at http://www.findarticles.com/p/articles/mi_m0DIZ/is_8_12/ai_60058707 (accessed on 16 September 2008).
[390] Levy, S., *"Turning Off the Music Tap: Is music piracy so ingrained that only draconian legislation can stop it – or is there a better way to make sure artists get their money",* Newsweek, 13 May 2002.
[391] Borland, J., *"US Supreme Court rules against file Swapping"*, CNET News, 28 June 2005, located at http://news.cnet.com/Supreme-Court-rules-against-file-swapping/2100-1030_3-5764135.html (accessed on 31 July 2008).
[392] Henriquez, R., op.cit., p.129.

and their users,[393] free music is still accessible on the Internet in a range of digital audio formats.[394] It now takes a little longer for the consumer to find what they want. The reason it now takes longer is because unauthorised P2P networks have become movable targets for the music industry.

The digital distribution model has now been accepted by the music industry as the future strategy. The Major labels have changed the new economic model to embrace the strategy of legitimising these once free services and co-opting them, instead of fighting them.[395]

Singularly and collectively, the Major labels have launched proprietary online music services or purchased them to adapt the technology with a view to leveraging customer loyalty. The Major labels also realise that illegitimate digital distribution will not cease. Instead, the Major labels are trying to compete with the free-based services by setting up their own proprietary music distribution systems.[396]

For example, Napster signed an agreement with BMG on the production of a legitimate file-swapping service. Ironically, BMG was one of the parties that brought a legal suit against Napster for infringing BMG's copyright.[397] Unfortunately, Napster eventually filed for bankruptcy[398] and disappeared from cyberspace for quite some time until Roxio relaunched the service as a legitimate P2P service in 2003.[399] Not unlike Napster, MP3.com was acquired by Vivendi Universal after they ended up winning a lawsuit against them.[400] AOL Time Warner, EMI, BMG and RealNetworks own MusicNet which is based on RealNetworks technology. Pressplay is working with Microsoft and is jointly owned by Sony and Vivendi Universal.[401]

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[393] IFPI's *Online Music Report 200*4, p.13, located at http://www.ifpi.org/content/library/digital-music-report-2004.pdf (accessed on 21 April 2008).
[394] Lunceford, B., and Lunceford, S., *"Meh - The Irrelevance of Copyright in the Public Mind"*, 7 NW. J. Tech. & Intell. Prop. 33, 2008-2009, p.39; See also Norman, J., *"Staying Alive: Can The Recording Industry Survive Peer-To-Peer?",* 26 Colum. J.L. & Arts 371, Summer 2003, pp.404-405.
[395] Garrity, B., *"For-pay P2P models emerge"*, Billboard, Vol. 114, Issue 22, 1 June 2002, p.64.
[396] Brown, K., op.cit.
[397] CNN Money, *"Napster, BMG in Music Pact"*, CNN Money, 31 October 2000, located at http://money.cnn.com/2000/10/31/bizbuzz/napster/ (accessed on 12 June 2008).
[398] Variety, *"Napster files for bankruptcy"*, Variety, Vol. 387, Issue 4, 10 June 2002.
[399] The Examiner, *"New 'legal' Napster launch this month"*, The Examiner Newspaper, 11 October 2003.
[400] Menta, R., *"Universal buys MP3.com",* MP3 Newswire.net, 21 May 2001, located at http://www.mp3newswire.net/stories/2001/vivendi.html (accessed on 8 April 2008).
[401] Garrity, B., *"For-pay P2P models emerge"*, op.cit.

Other companies are also offering legitimate MP3's for download such as music retailers and ISP's. Examples include HMV and Bigpond's music download service.

At the same time the Major labels are embracing new technologies and setting up their own distribution networks they continue to pursue other decentralised P2P file sharing services that are offering digital content for free.

Ironically, many of the major electronic manufacturing companies that have subsidiary companies in the music industry like Sony, produced portable digital audio players that allowed and played illegitimate digital music files, whilst at the same time litigating against P2P file swapping services that permitted the user to download the very digital music files being played in their devices. Many of the electronic manufacturers have been supporting technological protection measures built into their players which prevent illegitimate CD's from being ripped or copied into MP3 format and/or from playing pirated MP3's.[402] The electronic manufacturer's support of TPM's in their players is just another way of forcing their customers into purchasing legitimate digital music files online by selling to them digital audio players that will only play their licensed digital music file formats. Examples of manufacturers include Apple (iPod/iTunes) and Microsoft (Zunes) and will be discussed further in Chapter 8.

Therefore, the Major labels have slowly come to develop a more holistic strategy and response to copyright infringement of their music via digital distribution.

4.2.3 The Relationship between P2P Technology and Piracy

Why has peer-to peer technology (P2P) become so popular? The writer will attempt to analyse different P2P architectures and the influence they have had on piracy levels.

There is no universally accepted definition of the term "peer to peer" or as it is more commonly known "P2P".[403] P2P is a "techie" term named by Internet users to describe the characteristics of the technology. Though, as the term suggests, the single most defining attribute of every P2P design is that it permits users of the technology to network and interact as peers. The word

[402] Wunsch-Vincent, S., and Vickery, G., *"Digital Broadband Content: Music"*, A report presented to the OECD's Working Party on the Information Economy, 13 December 2005, p.62, located at http://www.oecd.org/dataoecd/13/2/34995041.pdf (accessed on 24 April 2008).
[403] Strasser, M., op.cit., p.693.

"peer" means that for each individual user that accesses a P2P network has, to a large extent, the same operative capabilities as other users on the network. Peers on P2P systems can act as both clients and servers meaning they both supply and acquire files. In contrast to the traditional client-server model only servers supply files, and clients acquire files.[404] P2P systems can be used for lawful purposes as well has its dark and disruptive side being the unlawful distribution of copyright works. P2P platforms and peer production of works is growing for the following reasons:

(a) more people are using products created using peer production;

(b) the creative output or peer production is increasing;

(c) the sophistication of P2P platforms is improving swiftly; and

(d) different product outputs are expanding.[405]

One only needs to examine the different P2P platforms in order to understand the technical differences. There are three different types of P2P designs. These are referred to as Hybrid, Closed and Pure.[406]

4.2.3.1 Hybrid P2P Architecture

Napster, the MP3 file-swapping service which pioneered the P2P phenomenon, is a typical model of a hybrid P2P architecture.

The term "hybrid" means a system that has some attributes that one might expect of a traditional P2P architecture but differs in other respects.[407] Napster had the typical features of a hybrid P2P architecture because it permitted each user of its network to have the same operative capabilities. Each peer (user) of the Napster system could receive files from other peers but they were also

[404] Ibid.
[405] Pouwelse, J., Garbacki, P., Epema, D., and Sips, H., *"Pirates and Samaritans: a Decade of Measurements on Peer Production and their Implications for Net Neutrality and Copyright"*, Telecommunications Policy Vol. 32, Issue 11, 2008, p.701.
[406] Hudson, A., *"Can't Get No Satisfaction: The Rise (And Fall) of Grokster and Peer-To-Peer File Sharing"*, 59 Ark. L. Rev. 889, 2006-2007, pp.891.
[407] Ibid, pp.892-893.

expected to save their own lists of files and forward them on to other peers. As a consequence, Napster facilitated peers to transfer MP3 files directly with one another.[408]

The perceived difficulty with decentralised networks is not the issue of downloading the file, but rather being able to locate the desired files from other peers. Napster's hybrid P2P architecture made the location and exchange of MP3 files over the Internet easier because the locating of information occurred by sending search requests to a central directory.[409] This characteristic made it different from true P2P architectures.

Every time a peer accessed the Napster network system, an application would routinely execute to inspect the hard drive of that peer's computer and record its IP address and any MP3 titles contained on the peer's computer by indexing those to the central database.[410] This feature of a central database is more characteristic of a typical client-server architecture.

Other peers can then search for particular files by entering an enquiry to the central directory which searches for the listing. If the central directory matches a hit for the search enquiry, then it would send the IP address of the peer that has the file stored on their computer to the peer that is conducting the search.[411]

Although Napster was always considered a P2P architecture from the point of view of storing and exchanging data, its method of locating the data via a central directory was not.[412] Therefore, Napster was a hybrid system that mixed the attributes of a traditional P2P architecture with those of a client-server architecture.[413]

4.2.3.2 Closed P2P Architecture

Unlike hybrid P2P architectures, closed and pure P2P platforms are entirely decentralised. Closed and pure P2P architectures permit peers to not only store and transfer files with one another but also the peers are able to locate files between each other as well, rather than rely on a

[408] Riehl, D., *"P2P Distribution Systems: Will Napster, Gnutella, and Freenet Create a Copyright Nirvana or Gehenna?"*, 27 William Mitchell Law Review 1761, 2001, p.1768.
[409] Ibid.
[410] Ibid.
[411] Brain, M., *"How Napster Works"*, Howstuffworks.com, 2006, located at http://www.howstuffworks.com/napster.htm (accessed on 12 December 2008).
[412] Strasser, M., op.cit., p.694.
[413] Ibid.

central database.[414] In that regard, closed and pure P2P architectures are comparable but there are also some major differences which will be discussed in section 4.2.3.3 of this thesis.

The Gnutella, Grokster and KaZaA platforms are all examples of networks built around closed P2P architectures.[415] In order to locate files on a closed network, a peer routes a search to the next peer in the network via a node.[416] The peer that is contacted then checks whether it has that file. If this is the case, it sends the file back to the peer via a node from which the search originated. Alternately, the peer on sends the request in conjunction with the IP address of the originating peer via a node to the next peer in the network. This process is repeated until the file is available from another peer.[417] This then instigates a request chain that incorporates any number of nodes and peers.[418] In order to avoid requests forming loops in the network, individual peers decline the requests they have already dealt with.

To prevent search requests continuing to be active in the network, and to prevent the network being clogged by the overload of traffic, the search request will time out after a number of phases.[419]

At the point that the request chain has found its destination, in that it has found a peer that possesses the required information, that peer then establishes a direct link with the originating peer. [420] It is able to do this, as it has acquired both the IP address and the search request.[421] As a result, all that the destination peer needs do is place it into a digital data packet and send it to the originating peer. Unlike hybrid P2P designs, closed P2P systems run on a true P2P basis, in that they rely upon both the location and the exchange of information to the users of the network acting as peers.[422] The location and exchange of information to users of P2P networks is significant in terms of copyright liability and shall be explored in more depth in Chapter 6 of this thesis.

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[414] Siegal, H., and Semel, B., *"Combating Online Infringement Post-Napster"*, Volume 166 Issue 1, New Jersey Law Journal, 1 October 2001, p.29
[415] Ibid.
[416] Segkar, A., *"The Napster Decision and Beyond – a Look at Music Copyright Issues in the Internet Age"*, Intellectual Property Forum, Issue 53, June 2003, p.41.
[417] Riehl, D., op.cit., p.1774.
[418] Ibid.
[419] Ibid, p.1775.
[420] Strasser, M., op.cit., p.707.
[421] Ibid.
[422] Ibid.

4.2.3.3 Pure P2P Architecture

Freenet is an example of a pure P2P architecture and by its very nature operates in a similar fashion as closed P2P networks. Both pure and closed P2P architectures are analogous because they locate and transfer files on a P2P basis. Apart from the similarities between pure P2P and closed P2P architectures, there are also some important characteristics that differentiate these architectures.

Pure P2P architecture's most significant difference is that the destination peer who holds the file requested by the originating peer does not transfer the file directly to the originating peer. Instead the destination peer routes the file to the next peer in the request chain. Each of these peers then retain a copy of the file before sending it on to the next immediate peer in the request chain, who in turn does the same, until it reaches the originating peer from which the request was made.[423]

The manner in which pure P2P architectures routes information is due to the fact that each peer is aware of only those IP addresses of the directly previous and following peer in the chain.[424] All other peers' identities are concealed.[425] Therefore, in pure P2P's the file must be sent through each and every peer comprising the chain from which the originating request was made.[426] Anonymity and encryption systems are a key feature defining the major differences between pure and closed P2P systems. [427]

4.2.3.4 Next generation of P2P systems

If the distributors of P2P software continually change the P2P architecture in order to avoid and circumvent copyright law and the attack from the recording industry for copyright infringement, then it is obvious the software will proliferate.[428] The magnitude of the underlying problem is revealed. There are millions of users of P2P software at any one time around the world and very

[423] Riehl, D., op.cit., p.1781.
[424] Ibid.
[425] Strasser, M., op.cit.
[426] Ibid.
[427] Clarke, I., Sandbert, O., Wiley, B., and Hong, T., *"Freenet: A distributed anonymous information storage and retrieval system."*, ICSI Workshop on Design Issues in Anonymity and Unobservability, Springer-Verlag, LNCS 2009, pp. 46–66, 2001.
[428] Einhorn, M., *"Copyright Prevention, and Rational Governance: File-sharing and Napster"*, 24 Columbia – VLA Journal of Law & the Arts 449, Summer 2001, p.461.

little paper trail to prove a particular user is infringing copyright.[429] Apart from Fair dealing defences and limited exceptions to copyright infringement available to individuals, it is predominantly individual consumers participating in these P2P networks who are sharing music in violation of existing copyright laws. A comprehensive legal analysis regarding direct infringement and Fair dealing defences pertaining to the individual user are contained in the *Copyright Act 1968* (Cth) and are detailed further in Chapter 6.

In coming P2P architectures, the individual's 'cyber-footprints' will be masked so detection is even more difficult.[430] Even if one could track a user in real time, users will be transmitting files anonymously, because the architecture of the next generation P2P software will substantially conceal the sources from which the shared material has been transferred.[431] One such P2P architecture is BitTorrent. An earlier discussion of the BitTorrent P2P platform was provided in section 3.3.3.6 of this thesis. As noted earlier, Bram Cohen the inventor of the BitTorrent software and network released a new version of his P2P software for beta testing. In the beta version, the need for the web hosting of centralised servers ("trackers") were removed.[432] The central servers were paramount to assist with the file transfer process. These central servers have always been paramount for detecting infringing activities and the updated version of the software signifies problems for the anti-piracy units from being able to identify illegal distribution of software and digital content.[433] The constant architectural changes to P2P software will be an ongoing dilemma for the music industry.

4.2.4 Piracy

The figures provided in sections 4.2.4.3 and 4.2.4.4 predominantly cover the years 2001-2006. These figures are the most readily available as provided by IFPI in their published Commercial Piracy Reports and Digital Music Reports from 2001-2006. After 2006, IFPI no longer published the Commercial Piracy Report so further figures relating to specific removal of unauthorised digital music files and take downs of P2P services became limited.

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[429] Landen, J., *"Beyond Napster: An Enforcement Crisis in Copyright Law?"*, 28 Northern Kentucky University Law Review 713, 2001, p.716.
[430] Ibid.
[431] Dickman, J., *"Anonymity and the Demands of Civil Procedure in Music Downloading Lawsuits"*, Tulane Law Review, Vol. 82, No. 3, 2008, p.1056.
[432] Kidd, D., op.cit., p.29.
[433] Ibid.

4.2.4.1 The extent of Piracy on the Internet

The Internet provides numerous prospects for new businesses to provide music through various means.[434] However, the use of online mediums also faces a number of challenges. Online services benefiting from significant financial resources have emerged with business models condoning the widespread dissemination of unauthorised music at no cost to the user and no financial benefit to the artists or the recording labels. The internet is being embraced by opportunistic users in order to distribute unauthorised compilations, counterfeit and other physical copyright protected products. Prolific downloads compromise legitimate music sales and the development of legitimate online music services.[435]

4.2.4.2 Types of internet piracy

Internet piracy is the unauthorised reproduction and distribution of recorded music files online.[436] Internet piracy can take many forms but not limited to uploading and downloading unauthorised music files via websites, File Transfer Protocol ("FTP")[437] servers, unauthorised P2P networks or making available music files from Internet Relay Chat ("IRC")[438] channels, newsgroups and billboards for download.[439]

Unauthorised copying can also occur through linking and hacking sites. Link sites are essentially web sites that either host or provide direct or indirect downloads of infringing files.

For example, in *Universal Music v. Cooper*, the Federal Court of Australia held that the simple existence of hypertext links to illegal MP3 files on Cooper's website was not itself a direct infringement of Copyright,[440] but did amount to authorising copyright infringement, namely the posting of infringing copies of music recordings by the operators of the remote websites, and the

[434] Escher, J., op.cit., p.75.
[435] Zepeda, L., *"Copyright ownership and Napster Technology"*, Berkley Technology Law Journal, Vol. 17, Issue 1, Winter 2002, p.72.
[436] Loughlan, P., *"Pirates, Parasites, Reapers, Sowers, Fruits, Foxes...The Metaphors of Intellectual Property"*, 28 Sydney Law Review 211, 2006, p.218.
[437] See "FTP" in Glossary of Terms at p.19 of this thesis.
[438] For further explanation of "IRC" see Glossary of Terms at p.21 of this thesis.
[439] Zepeda, L., op.cit.
[440] *Universal Music Australia Pty Ltd v. Cooper* [2005] FCA 972. Tamberlin J at paragraphs [74]-[76] located at http://www.austlii.edu.au/cgi-bin/disp.pl/au/cases/cth/federal%5fct/2005/972.html?query=title%28universal+%20near+%20cooper%29 (accessed on 15 February 2008).

downloading of those recordings by internet users.[441] Whether or not someone has authorised copyright infringement depends in part on the extent of control over the infringing act.[442] A detailed case history and analysis of *Universal Music v. Cooper* is provided in Chapters 5 and 6 of this thesis.

Hacking sites, on the other hand, are more involved with providing codes, universal serial codes and software to defeat copy control technology measures embedded in copyrighted material and content.

4.2.4.3 Scale of the problem

Although speculative at best, in 2001 the IFPI estimated 99% of all music files available on the Internet were unauthorised copies and infringed copyright.[443] In 2006 the music industry's effort to curtail piracy has been more successful. In 2006, even with the massive increase in broadband bandwidth and use, IFPI calculated that unauthorised music distribution had not increased since 2004. IFPI estimated in 2006 that illegitimate P2P services host 90% of the 885 million unique single digital music files available for copying at any one time with the other 10% being shared by Web and FTP sites. Of the 885 million digital music files these may be hosted by multiple P2P services, web and FTP sites which could amount to billions of copies floating around cyberspace. This figure of 885 million available digital music files is slightly up from June 2005 (870 million) and down from January 2004's figures of 900 million and 1.1 billion in April 2003.[444] These figures do not take into account Friend to Friend ("F2F") sharing and underground sharing activities.

IFPI's current estimates in 2008 were that 95% of all music downloads over the internet were unauthorised and that 40 billion digital music files were illegally shared.[445]

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[441] Ibid, paragraphs [86]-[88].
[442] Strasser, S., *"The legality of linking: Universal Music v Cooper"*, Butterworths, Internet Law Bulletin Vol. 8, No. 5, August 2005, p.70.
[443] IFPI's *Online Music Report 2004*, pp.10-11, located at http://www.ifpi.org/content/library/digital-music-report-2004.pdf (accessed on 21 April 2008).
[444] IFPI's *Digital Music Report 2006,* p.21, located at http://www.ifpi.org/content/library/digital-music-report-2006.pdf (accessed on 29 December 2008).
[445] IFPI's Digital Music Report 2009, p.12, located at http://www.ifpi.org/content/library/dmr2009-real.pdf (accessed on 24 February 2009).

4.2.4.4 IFPI estimates

In January 2006, IFPI estimated that on all P2P services worldwide there were 885 million unauthorised music files available for download and approximately 8.6 million users of these P2P services.[446] Furthermore, it was estimated that there were 110 million unauthorised music files linked to some 150,000 Web and FTP sites.[447] In its Commercial Piracy Report in 2005, IFPI estimated music piracy cost the music industry US$4.6 billion dollars in 2004 (up from US$4.5 billion in 2003) [448]

There has been much contention about the validity of these figures and whether they are solely attributable to P2P file sharing and on-line piracy. The first claim from the music industry was that the popularity of P2P networks combined with consumers' ability to obtain music for free was directly attributable to the music industry's declining sales revenue. Although the statistics for a number of years show a decline in the sale of music, this does not necessarily prove that P2P file sharing was the cause. The decrease in music sales may well be attributable to competition from other forms of entertainment and the inefficiencies of the record labels.[449] In fact IFPI claims that music piracy did not increase in 2004 yet many of the Major labels in their Annual Reports for 2004 claimed relatively flat sales and revenues.[450] This illustrates that not in all cases does illegal file sharing mean a decrease in sales. In fact, during the hiatus of Napster, research showed that sales of music actually increased because users were able to listen to the music they liked and then went and bought the physical product from the music stores.[451]

The second claim from the music industry is that because the music industry is losing profits it will be the composers and artists who are suffering. The artists and composers normally assign their rights in copyright law to the publishers and producers of records. From the perspective of

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[446] IFPI's *Digital Music Report 2006*, op.cit.
[447] Ibid.
[448] *IFPI's The Recording Industry's Commercial Piracy Report 2005,* op.cit., p.1.
[449] Douglas, G., *"Copyright and Peer-to-Peer Music File Sharing: The Napster Case and the Argument Against Legislative Reform"*, ELAW, Murdoch University Electronic Journal of Law, Volume 11, Number 1, March 2004 located at http://www.murdoch.edu.au/elaw/issues/v11n1/douglas111.html (accessed on 16 June 2008).
[450] See footnote 393 and press release from IFPI, *"Global music retail sales, including digital, flat in 2004"*, 22 March 2005, located at http://www.ifpi.com/site-content/press/20050322.html (accessed on 28 March 2008).
[451] Smith, T., *"Napster Boosts Music Sales – Survey"*, The Register, 21 July 2000, located at http://www.theregister.co.uk/2000/07/21/napster_boosts_music_sales_survey/ (accessed on 4 August 2008); See also Bowman, L., *"Study: Napster boosts CD Sales"*, ZDNet News, 20 July 2000, located at http://news.zdnet.com/2100-9595_22-522383.html?legacy=zdnn (accessed on 4 August 2005).

profits, it is usually the record labels that benefit and retain the profit. As a profession, musicians are generally poorly paid for the sales of their recordings and in many cases the input from authors and composers into the way their music is recorded is a further cost element to the recording label they are contracted to.[452] However, musicians also realise that it is the recording labels that also generally carry much of the risk in promoting, marketing, publishing and producing their music. This unfortunately is the set off cost of doing business in the music industry.

4.2.4.5 The Enforcement Agencies

IFPI is the body that represents the international recording industry. IFPI along with the RIAA,[453] the Australian Recording Industry Association ("ARIA") and similar agencies worldwide are heading a global operation against music piracy of unauthorised music files by means of dispatching automated web crawlers to hunt out and locate infringing web sites, and then organising action with its affiliated agencies throughout the world to remove the illicit web sites containing unauthorised music files.[454]

4.2.4.6 IFPI's internet strategy

IFPI established its own specialised Internet Anti-Piracy unit to tackle unauthorised digital music distribution over the Internet and protect the copyright of its member record companies and artists. The privately funded watchdog called Music Industry Piracy Investigation unit ("MIPI")[455], a sub branch of ARIA, polices piracy and enforces the rights of the record companies and artists in Australia.[456] IFPI and MIPI's envisage its legal approach against unauthorised digital music distribution will be through high volume takedowns of illicit web sites and adopting strategic litigation where necessary.[457]

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[452] Ibid.
[453] See Glossary of Terms at p.14 of this thesis.
[454]See IFPI's website located at www.ifpi.org; See also ARIA's website located at www.aria.com.au; See also RIAA's website located at www.riaa.com.
[455] For further details relating to "MIPI" see Glossary of Terms at p.22 of this thesis.
[456] See MIPI's website located at http://www.mipi.com.au/.
[457] *IFPI's The Recording Industry's Digital Music Report 2005*, p.21, located at http://www.ifpi.org/content/library/digital-music-report-2005.pdf (accessed on 12 November 2008).

4.2.4.6.1 High-volume takedowns

IFPI attempts to work together with Carriage Service Providers ("CSPs") and ISPs alerting them of copyright infringing materials, content or services on their network systems, and making sure these articles are taken down and removed or blocked.[458] In 2004, IFPI and its affiliated agencies removed 69,100 illegal web sites which contained in total approximately 1.6 billion unauthorised music files. IFPI also managed the take down of 477 P2P indexing services worldwide in 2005.[459]

4.2.4.6.2 Strategic litigation

Faced with no other option to protect its market, the music industry challenged the validity of new digital distribution technology via litigation. An appraisal of strategic litigation efforts and their successes and failures will be undertaken in the next chapter.

4.2.5 Conclusion

The music industry has had to play catch up with new technology. The speed in which new technology was adopted by music pirates took the music industry by surprise. The music industry has been slow to adopt and recognise new technology and the potential it has to offer new business models. The music industry's reluctance to adapt to change left it wedded to its traditional business model. Faced with no other option to protect its market, the music industry attempted to eliminate unauthorised music file distribution by challenging the legal validity of new digital distribution technology.

[458] Ibid.
[459] Ibid.

CHAPTER 5 – THE CASES

5.1 CASE OVERVIEW

This chapter examines the numerous cases brought by the music industry in its attempt to protect its traditional business model and its share of the market by legal challenges aiming to clarify and enhance the role of copyright in the new environment.

Before conducting any litigation, the music industry had some time to weigh up its opponents in the unauthorised digital music arena. The IFPI is better known for taking up the battle against music pirates and through its affiliate RIAA, has over the last seven years attempted to dispose of them one by one.[460] The biggest flaw in their plan is that whenever an opponent drops out another appears. Nonetheless, the question one must ask is – How have the Australian courts dealt with digital music copyright disputes?

It is important to note that two determined cases have formed legal precedent in Australia for courts in an unauthorised digital music distribution dispute. These are *Universal Music v. Cooper*[461] and *Universal Music v. Sharman*[462] which will be discussed later in this chapter. Litigation over the legality of digital music distribution has surfaced readily in the United States. The United States government has taken a pro-active role to protect its entertainment industries. In Europe and Asia some sporadic litigation has commenced with the majority of countries looking to the United States to show the way. It will be instructive to look at the many cases that have come before the Australian courts and in other jurisdictions. It is the purpose of this chapter not to provide a legal analysis but rather outline litigation patterns from an historical perspective. A more specific legal analysis will follow in Chapter 6.

[460] Chan, A., *"The Chronicles of Grokster: Who is the Biggest Threat in the P2P Battle"*, 15 UCLA Ent. L. Rev. 291, 2008, p.305.
[461] *Universal Music Australia Pty Ltd & Ors v. Cooper & Ors* [2004] FCA 78 (13 February 2004); [2005] FCA 972 (14 July 2005); [2005] FCA 1878 (22 December 2005); [2006] FCA 642 (29 May 2006); [2006] FCAFC 187 (18 December 2006).
[462] *Universal Music Australia Pty Ltd & Ors v. Sharman Licence Holdings Ltd & Ors* [2005] FCA 1242; [2006] FCAFC 41.

5.1.1 Recent Digital Music Disputes

A number of recent disputes address the area of unauthorised digital distribution of copyrighted sound recordings. The music industry has not only litigated against P2P file sharing technologies, they have also brought legal action against a number of other parties in the digital music distribution space. The majority of actions brought by the music industry have been targeted against the following:

- Hardware Providers;
- P2P Software Providers;
- Internet Service Providers and Web Site Providers; and
- Individual File Traders

To obtain a full understanding of the relevant issues for unauthorised digital music distribution, the thesis shall highlight a number of important high profile disputes with a bearing on the issue.

5.1.2 Hardware Providers

5.1.2.1 Sony Corporation of America v Universal City Studios Inc.[463]

In 1983, the US Supreme Court heard arguments, by copyright holders and technology manufacturers that resemble the issues raised today by digital music piracy.

The subject matter of the case was home taping of television shows using video tape recorders (VTRs, now known as video cassette recorders or VCRs). The original plaintiffs (Universal et al.) were copyright holders of television shows and films who believed that Sony's new technology would lead to infringement of these copyrights. That is, Universal argued that consumers were using Sony's Betamax VTRs to record some of Universal's copyrighted works thereby infringing Universal's copyrights.[464] Universal believed that the manufacturers of

[463] *Sony Corp. of America v. Universal City Studios, Inc.* 464 U.S. 417 (1984).
[464] Chapman, S., *"Pushing the Limits of Copyright Law and Upping the Ante in the Digital World: The Strange Case of A&M Records, Inc. v. Napster, Inc."*, 89 Kentucky Law Journal 793, 2000/2001, p.797.

devices used by consumers to make copies of protected works should be responsible for compensating the copyright holders for their lost royalties.[465]

Although the US Ninth Circuit Court of Appeals held that Sony's manufacture and sale of Betamax machines did constitute contributory infringement, the Supreme Court reversed the decision.[466] The key language of the decision came in the Court's recognition that, for the majority of Betamax users, the primary use of the machine was "time-shifting," which is: the practice of recording a program to view it once at a later time, and thereafter erasing it.[467]

The television programs at issue were initially broadcast to be viewed free of charge. Following the District Court's findings, the US Supreme Court reasoned that a device that allowed a consumer to view such a show at the time of his or her choosing did not represent a significant negative impact on licensing revenues.[468] That is, there was no convincing evidence that time-shifting would result in less television viewing, so that the advertisement-based revenue scheme underlying the licensing of the protected works faced no obvious threat as a result of the sale of Betamax units. [469]

The doctrine the courts used to decide the Sony case was borrowed from patent law, where it is known as the "staple article of commerce" defence. Transplanted into copyright law, it became known as the Sony doctrine.[470]

Under the doctrine, the maker or distributor of an innovative copying technology may, in certain circumstances, qualify for a "safe harbour" from liability when its customers use the technology in ways that infringe on copyrights.[471] If the technology has or could have substantial non-infringing uses, the manufacturer/seller has a substantially higher probability of not being held

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[465] Dogan, S., *"Is Napster a VCR? The implications of Sony for Napster and Other Internet Technologies"*, 52 Hastings Law Journal 939, April 2001, pp.943-944.
[466] Hogberg, S., "The Search for Internet-Based Doctrines of Secondary Liability in Copyright Law", 106 Colum. L. Rev. 909, 2006, p.921; See also Greene, S., *"Reconciling Napster with the Sony decision and recent amendments to the law"*, American Business Journal, Vol. 39, Issue 1, Fall 2001, p.60.
[467] Hancock, G., *"Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd.: Inducing Infringement and Secondary Copyright Liability"*, 21 Berkeley Tech. L.J. 189, 2006, p.193; See also Ryan, T., *"Infringement.com: RIAA v. Napster and the War against Online Music Piracy"*, 44 Arizona Law Review 495, Summer 2002, p.510.
[468] *Sony Corp. of America v. Universal City Studios, Inc.* 464 U.S. at 423-424.
[469] Ryan, T., op.cit.
[470] *Sony Corp. of America v. Universal City Studios, Inc.* 464 U.S. at 439.
[471] Wadhwa, A., op.cit., p.488.

liable even if some or even many buyers misuse its technology to infringe on copyrights.[472] However, the courts have declined to declare a magic number of substantial non-infringing uses that guarantee immunity from copyright infringement liability.

5.1.2.2 University of NSW v. Moorhouse[473]

The test for authorisation of copyright infringement relating to technology was set early in Australia in 1975. The *University of NSW v. Moorhouse* case set the test for authorisation liability in Australia which has been subsequently followed in several cases such as *Sharman's* case and *Coopers* case which are discussed later in this Chapter and further analysed in Chapter 6.

This case commenced when there were concerns over the possibility that copyright infringement could be occurring within university libraries with the use of photocopying machines. As a result of these concerns the Australian Copyright Council supported a test case against the University of NSW.[474] On September 28, 1973, Paul Brennan photocopied two copies of one chapter from two books. Mr Brennan undertook the copying to gain evidence against the University of NSW.[475] Frank Moorhouse, the author of one of the books, joined with its publishers to bring proceedings against the University of NSW for authorising copyright infringement and to clarify whether photocopiers were being used to infringe copyright.

The issue to be considered before the Court was whether the University authorised the act of Mr Brennan's infringement of copyright. The case was first heard in the Supreme Court of NSW which held that a breach of copyright had been undertaken by Mr Brennan but that the University of NSW did not authorise the photocopying undertaken by Mr Brennan.[476] The University of NSW appealed the decision to the High Court.

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[472] Ibid.
[473] *University of NSW v Moorehouse and Angus & Robertson (Publishers) Pty Ltd* (1975) 133 CLR 1.
[474] Ricketson, S., and Cresswell, C., *The Law of Intellectual Property: Copyright, Designs & Confidential Information 2nd Edition revised*, Law Book Company, Sydney, 2002, paragraph 11.35.
[475] Jackson, M., and Shelly, M., *"Black Hats and White Hats: Authorisation of Copyright Infringement in Australia and the United States"*, International Journal of Law and Information Technology, Vol. 14, Issue 1, 2006, p.35.
[476] *Moorhouse and Angus & Robertson (Publishers) Pty Ltd v. University of NSW* (1974) 23 FLR 112.

The High Court disagreed with the trial judge's finding at first instance and held that the University of NSW had authorised the breach of copyright by Mr Brennan. Jacobs J, equated the actions of the University in placing photocopier machines in the library to providing an unlimited invitation to all users of the library to use the machine.[477] Without qualifying the invitation, users of the library could make use of the machines as they saw fit including acts involved in copyright works held as books on shelves.[478]

As Jacobs J, states:

> *"The fatal weakness in the case for the University is the fact that no adequate notice was placed on the machines for the purpose of informing users that the machines were not to be used in a manner that would constitute an infringement of copyright."*[479]

Gibbs J noted that the word "authorise" connoted a mental element so that it could not be inferred that a person had, by mere inactivity, authorised something to be done if he neither knew nor had reason to suspect that the act might be done.[480] Jacobs J., with whom McTiernan ACJ agreed, noted that where a general permission or invitation may be implied, it is clearly unnecessary that the authorising party have knowledge that a particular act comprised in the copyright will be done.[481]

In reaching his decision, Gibbs J noted that the University of NSW:

1. had under its control the means by which a copyright infringement might be committed (the photocopiers);

2. made the means available to other persons knowing, or having reason to suspect, that it was likely to be used for the purpose of committing a copyright infringement; and

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[477] *University of NSW v Moorehouse and Angus & Robertson (Publishers) Pty Ltd* (1975) 133 CLR 1, Jacob J, at p.22.
[478] Ibid, p.21.
[479] Ibid.
[480] Ibid, per Gibbs J, at pp.12-13.
[481] Ibid, per Jacobs, J at p.21.

3. omitted to take reasonable steps to limit the use of the means to legitimate purposes.[482]

5.1.2.3 RIAA v Diamond Multimedia Systems[483]

A case which threatened the existence of portable MP3 players occurred in 1998. Diamond Multimedia Systems ("Diamond") was on the verge of manufacturing and distributing a portable device (the "Rio") capable of recording and playing back MP3 files. Weighing only grams, the Rio connects to a PC, receives copies of MP3 files from the hard drive, and then (after disconnecting from the PC) allows the user to listen to the recordings via headphones. RIAA representing the major US recording companies became aware of this product, fearing that it would lead to significant illicit copying of copyrighted music owned in large part by the major recording companies.[484] RIAA sought a preliminary injunction preventing Diamond from releasing the Rio. RIAA claimed the Rio violated the US *Audio Home Recording Act 1992*[485] ("AHRA").[486]

The AHRA applies to digital audio recording devices, digital interface devices, digital recording media, and digital musical recordings.[487] Exempt from coverage are professional devices, dictation machines, and other recording devices whose primary purpose is the recording of non-musical sounds.

The AHRA requires all manufacturers or importers of digital recording devices that come under its purview to implement a Serial Copy Management System ("SCMS")[488] in each device.[489]

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[482] Ibid, per Gibbs, J, at p.13.
[483] *RIAA v Diamond Multimedia Systems (Diamond I),* 29 F. Supp. 2d 624 (C.D. Cal. 1998).
[484] Barthel, T., *"RIAA v. Diamond Multimedia Systems, Inc.: The Sale of the Rio Player Forces the Music Industry to Dance to a New Beat"*, 9 Journal of Art and Entertainment Law 279, Spring 1999, pp.281-282.
[485] Nickell, J., *"Blame it on Rio",* Wired News, 9 October, 1998, located at http://www.wired.com/news/culture/0,1284,15535,00.html (accessed on 15 April 2008). (Announcing the first trial that put the AHRA to task, the RIAA announced the imminent death of the recording industry's digital distribution market infrastructure if the new Rio wasn't prevented from reaching the consuming public).
[486] For more on AHRA see Glossary of Terms at p.13 of this thesis.
[487] *The Audio Home Recording Act 1992* 17 U.S.C. §1001(3). The definition of 'Audio Recording Device' under the AHRA is "…any machine or device of a type commonly distributed to individuals for use by individuals, whether or not included with or as part of some other machine or device, the digital recording function of which is designed or marketed for the primary purposes of, and that is capable of, making a digital audio copied recording for private use."
[488] For definition of "SCMS" see Glossary of Terms at p.25 of this thesis.
[489] Ibid, 17 U.S.C. § 1002(a)(1), (2).

"SCMS is intended to prohibit [digital audio recording] devices from recording 'second-generation' digital copies from 'first-generation' digital copies containing audio material over which copyright has been asserted via SCMS. It does not generally restrict the ability of such devices to make 'first-generation' digital copies from 'original' digital sources such as prerecorded commercially available compact discs, digital transmissions or digital tapes."[490]

Further, AHRA establishes a blanket royalty system to be applied to sales of certain digital recording equipment and blank digital recording media. These royalties are collected in two funds, the proceeds of which are distributed to musicians, vocalists, artists, publishers, writers, and the owners of sound recordings.[491]

The case was based on Diamond's failure to incorporate a Secure Content Management System ("SCMS") into its Rio player.[492] In theory, SCMS blocks serial recording, but the open MP3 format does not recognise, nor does it convey information about the digital music it receives and plays.[493] The RIAA also sought to receive royalty payments from Diamond as the manufacturer and distributor of the Rio as provided under the AHRA.[494]

The District Court for the Central District of California denied the motion for the injunction. The District Court further analysed whether the Rio was actually a device covered by the AHRA.[495] The AHRA fails to prohibit digital serial copying of copyrighted music, but instead, it places serial recording restrictions only on certain types of recording devices.[496] Having acknowledged the exemptions contained in the AHRA, the District Court then considered Diamond's argument that because the songs played by a Rio come from a hard drive of a PC,

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[490] See 138 US CONG. REC. H9029-01 at 9043 (daily edition September 22, 1992).
[491] Ibid, 17 U.C.S. § 1004(a), (b) and § 1007 and 1008.
[492] *RIAA v Diamond Multimedia Systems (Diamond II)*, 180 F.3d 1072 at 1075 (9th Cir. 1999 citing 17 U.C.S. §1002(a)(2) (1999)).
[493] *Diamond I*, 29 F. Supp.2d 624 at 632 (C.D. Cal. 1998).
[494] Ibid at 1075 citing 17 U.C.S. §1003 (1999).
[495] *Diamond II*, 180 F.3d 1072 at 1075 (9th Cir. 1999).
[496] Defined in the AHRA, *"serial copying"* is *"the duplication in a digital format of a copyrighted musical work or sound recording from a digital reproduction of a digital musical recording",* 17 U.S.C. § 1001(11) (1999).

and because a hard drive of a PC is not a "digital audio recording device," the Rio does not make copies of "digital audio recordings."[497]

The District Court noted that this result could not be what Congress intended, because it would basically nullify the AHRA due to the fact that, any recording device could evade AHRA regulation simply by passing the music through a computer and ensuring that the MP3 file resided momentarily on the hard drive.[498]

In the end, the US District Court denied RIAA's request for a temporary injunction.[499] The court found that RIAA "established a probability that the Rio is a 'digital audio recording device,'" but that granting an injunction preventing the release of the Rio would be pointless, noting that "incorporating 'SCMS' into the Rio appears an exercise in futility."[500]

The US Ninth Circuit Court of Appeals approved of the District Court's assessment that the Rio did not violate the AHRA's SCMS requirement and agreed that the Rio should not be blocked from entering the market.[501] However, while the District Court had rejected Diamond's argument that the Rio is not a 'digital audio recording device', the US Ninth Circuit Court of Appeals reached the opposite conclusion.

The US Ninth Circuit Court of Appeals discussed the definitions of digital audio copied recording and digital musical recording.[502] The court found that the end result of the definitions promulgated by the AHRA Act meant that a digital audio recording device "must be able to reproduce, either 'directly' or 'from a transmission,' a 'digital music recording.'"[503] From this

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[497] Gosse, E., *"Recording Industry Association of America v Diamond Multimedia Systems, Inc.: The RIAA Could Not Stop the Rio – MP3 Files and The Audio Home Recording Act"*, 34 USFL Law Review 575, 2000 at p.579.
[498] *Diamond I,* 29 F. Supp.2d 624 at 630 (C.D. Cal. 1998).
[499] Webb, S., *"RIAA v. Diamond Multimedia Systems: The Recording Industry Attempts to Slow the MP3 Revolution – Taking Aim at the Jogger Friendly Diamond Rio",* The Richmond Journal of Law & Technology, Vol. 7 Issue 1, Fall 2000, p.18, located at http://jolt.richmond.edu/v7i1/note2.html (accessed on 26 June 2008).
[500] *Diamond I,* 29 F. Supp.2d 624 at 631 (C.D. Cal. 1998).
[501] Ghosh, S., *"MP3 v. the Law: How the Internet Could (But Won't) Become Your Personal Jukebox"*, Gigalaw.com, July 2000, p.5, located at http://www.gigalaw.com/articles/2000-all/ghosh-2000-07-all.html (accessed on 2 January 2005).
[502] *Diamond II*, 180 F.3d at 1075-1076 (citing 17 U.S.C. § 1001(1), (3) and (5)(A) (1999)) (Strengthening the Court's finding that the plain language of the statute is sufficient for a determination of whether the Diamond Rio was a *"digital recording device."* The court provided the explicit definitions of the technical terms used in the act).
[503] Ibid at 1076; 17 U.S.C. §1001(1) (1999) *"A 'digital audio copied recording' is a reproduction in a digital recording format of a digital musical recording, whether that reproduction is made directly from another digital musical recording or indirectly from a transmission."* A 'digital musical recording' is defined as:

definition, Diamond contended that Rio was not able to record directly from a digital musical recording but rather from the hard drive of a PC which is exempt under AHRA.[504]

The exemption for computer hard drives under this definition of a digital music recording allowed Diamond to contend, and the US Ninth Circuit Court of Appeals to agree and certify that the Rio was not a "digital audio recording device."[505]

Diamond was successful in its arguments on the literal interpretation of the wording of the AHRA Act. One must consider that this case was heard prior to the *Digital Millennium Copyright Act (1998)* being introduced in the US and is discussed further in relation to the *Napster* case in section 5.1.3.1 of this thesis. Consequently, acts of uploading digital music files may be considered an infringement of copyright under the more recent statutes of the *Digital Millennium Copyright Act 1998 (DMCA), the Digital Performance Right in Sound Recordings Act* and the *No Electronic Theft Act 1997 (NET).*

5.1.3 P2P Software Providers[506]

5.1.3.1 A & M Records v Napster[507]

The seminal case that affected both copyright law and technology law *is A & M Records, Inc. v. Napster, Inc*. The *Napster* case involved a previously unexplored factual situation. The

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"A material object-
(i) in which are fixed, in a digital recording format, only sounds, and material, statements, or instructions incidental to those fixed sounds, if any, and
(ii) from which the sounds and material can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device." 17 U.S.C. § 1001(5)(A) (1999).

[504] Ibid at 1076.

[505] *Diamond II*, 180 F.3d at 1076; see 17 U.S.C. § 1001 (5)(A)(B) (1999) for definition of *"digital musical recording."*

[506] See Appendix 1 for a summary of cases brought against P2P Software providers. See also further reported litigation against P2P software Providers in *RIAA v. MP3.com* 2000 U.S. Dist. LEXIS 5761 (S.D.N.Y. 2000); *UMG Recordings v. MP3.com, Inc* .No. 00 Civ. 0472 (S.D.N.Y. filed Jan. 21, 2000); *RIAA v. Aimster* 2001 U.S. Dist. LEXIS 19135; 334 F.3d 643 (7th Cir. 2003); *RIAA v. Audiogalaxy* S.D.N.Y., 02CV-3999 (2002); *Twentieth Century Fox v. Scour Inc* No. 00-5385 (S.D.N.Y. filed June 20, 2000); *RIAA v. iMesh* US SD New York 03CV7339; *KaZaA v. Buma/Stemra*, Unofficial reports in translation are available at: http://w2.eff.org/IP/P2P/BUMA_v_Kazaa/20020328_kazaa_appeal_judgment.html (accessed on 23 July 2008); *Japanese Society for the Rights of Authors, Composers and Publishers (JASRAC) v. Japan MMO* (Tokyo District Court, Japan, 2003; appealed to the Tokyo High Court, Japan, 2005); *RIAK v. Soribada* No. 8869 (SDPP S. 2001); *Int'l Federation of the Phonographic Industry v. Bruvik* (Lillehammer City Court, Norway, 2003); *Ediciones Musicales Horus v. Weblisten* (Provincial Court of Barcelona, 2003) and *IFPI v. Kuro* located at IFPI's *Digital Music Report 2006*, p.19, located at http://www.ifpi.org/content/library/digital-music-report-2006.pdf (accessed on 29 December 2006).

[507] *A & M Records, Inc. v. Napster, Inc.* 114 F. Supp. 2d 896 (N.D. Cal. 2000). aff'd in part rev'd in part, 239 F.3d 1004 (9th Cir. 2001); aff'd 284 F.3d 1091 (9th Cir. 2001); 2002 US App. LEXIS 4752 (9th Cir. 2001).

defendant did not actually copy or provide copyright protected materials to individuals, per se, but rather, acted as a facilitator in the act of downloading digital music files via the Internet.

Thus, *Napster* can be distinguished from *Diamond*, in that rather than providing the vehicle for the playback of digital music files, Napster provided the fuel. The Napster case involved application of the *Digital Millennium Copyright Act* ("DMCA"). The DMCA was enacted in 1998 following inconsistent holdings in several cases in which copyright owners sued Internet service providers ("ISP's") on the theory of contributory infringement after their subscribers posted copyright protected material on the Internet.[508]

The defendant, Napster[509], was a small, Internet start-up company that made its proprietary MusicShare software freely available online. The software essentially enabled Napster users to perform three functions:

(1) search for MP3 files contained on Napster users' individual computer hard drives;

(2) trade MP3 files "directly," without having to use a centralised server for storage; and

(3) "chat" with other MP3 users while online.[510]

After its inception in May 1999, Napster enjoyed steady growth, reaching a reported fifty-eight million users by February of 2001, much to the annoyance of the recording industry.[511]

The most detrimental effect to the recording industry was the fact that a Napster user could upload from a CD to a PC, digital music files with the use of digital audio ripping software and share these files in their shared folders on their PC with other Napster users.

Alternatively, a Napster user could also locate MP3 files by using the "hotlist" function.[512] To use the "hotlist" function, the Napster user would create a list of other users' names from which

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[508] Pollack, W., *"Tuning In: The Future of Copyright Protection for Online Music in the Digital Millennium"*, 68 Fordham Law Review 2445, 2000 at p.2457.
[509] Napster grew out of a desire shared by its software creator and co-founder, then eighteen year old Shawn Fanning, and his friends for a system for locating and exchanging MP3 digital audio files. See CNN.com, *"Napster Timeline"*, 2001, located at http://www.cnn.com/SPECIALS/2001/napster/timeline.html.
[510] Belknap, J., *"Copyright Law and Napster"*, 5 The Journal of Small and Emerging Business Law 183, Spring 2001, p.185.
[511] Ibid.
[512] *A&M Records, Inc. v. Napster, Inc.,* 239 F.3d 1004, 1012 (9th Cir. 2001)

they had obtained MP3 files in the past. When logged onto Napster's servers, the system alerted the user if any users on his/her list (a "hotlisted user") was also logged onto the system.[513] If so, the user could access an index of all MP3 file names in a particular hotlisted user's library and request a file in the library by selecting the file name. The contents of the hotlisted user's MP3 file were not stored on the Napster system.[514]

In December 1999, several record labels, represented by the RIAA, brought an action against Napster.[515] More specifically, the plaintiff record companies alleged contributory and vicarious copyright infringement[516] as well as statutory and common law unfair competition.[517]

Essentially, the plaintiffs' contributory infringement claim was based on the argument that Napster had wilfully, intentionally, and purposefully engaged in the business of knowingly and systematically inducing, causing, and materially contributing to the unauthorised reproductions of the plaintiffs' copyrights and exclusive rights under copyright in those copyrighted recordings.[518] The Plaintiff's vicarious infringement claim was based on the argument that Napster also had the authority to supervise a direct infringer's actions and had induced, caused or materially contributed to the unauthorised reproductions of the plaintiffs' copyrights and had received a direct financial benefit from the infringing activity because the company had the right and ability to supervise and/or control the infringing conduct of its users.[519]

The plaintiffs further claimed that as a direct result of the contributory infringements, the plaintiffs were entitled to statutory damages exceeding US$100,000,000.[520]

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[513] Elliott, C., *"The Napster Saga"*, New Zealand Law Journal, August 2001, p.291.
[514] Haftke, M., and Daniels, P., *"Napster in the UK"*, Issue 4, Entertainment Law Review, Vol. 4, Issue 8, 2001, p.107.
[515] Blackowicz, J., *"RIAA v. Napster: Defining Copyright for the Twenty-First Century?"*, 7 Boston University Journal of Science and Technology Law 182, Winter 2001, p.185.
[516] *A & M Records, Inc. v. Napster, Inc.,* No. C 99-05183 MHP, 2000 U.S. Dist. LEXIS 6243, at 1 (N.D. Cal. May 5, 2000), stay granted, No. 00-16401, No. 00-16403, 2000 U.S. App. LEXIS 18688 (9th Cir. July 28, 2000), motion ruled upon, No. C 99-05183 MHP, No. C 00-0074 MHP, 2000 U.S. Dist. LEXIS 20668 (N.D. Cal. Aug. 10, 2000), injunction granted, 114 F. Supp. 2d 896 (N.D. Cal. 2000), affirmed in part and reversed in part, No. 00-16401, No. 00-16403, 2001 U.S. App. LEXIS 1941 (9th Cir. Feb. 12, 2001), amended by 239 F.3d 1004 (9th Cir. 2001).
[517] RIAA Complaint at 21.
[518] Ibid at 17.
[519] Ibid.
[520] RIAA complaint, op.cit., at 18.

The plaintiffs requested that the Court grant them preliminary and permanent injunctions prohibiting further contributory infringements.[521] On 5 May, 2000, the US District Court for the Northern District of California denied Napster's motion for summary judgment,[522] which the company had based upon the "safe harbour" provision of the DMCA.[523] Patel J, made her decision and ultimately denied Napster's motion because Napster did not "transmit, route, or provide connections" for the alleged infringing digital audio files through its system, and therefore did not meet the safe harbour requirements.[524]

The Court found that because the material was transmitted from one Napster user to another through the Internet, rather than through the defendant's system, the company merely facilitated the initiation of connections.[525] Furthermore, the Court found that summary judgment was inappropriate because there were general issues of material fact concerning whether Napster had reasonably implemented a policy for terminating "repeat infringers," as would have been required for the company to fall under the safe harbour protection.[526]

The next significant episode in the Napster saga came on July 26, 2000, when Patel J., issued a preliminary injunction against Napster, pending the outcome of a full trial, as had been requested by the RIAA.[527] Two days later, Napster appealed Patel J's, ruling to the US Ninth Circuit Court

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[521] Ibid.

[522] *A & M Records, Inc. v. Napster, Inc.,* No. C 99-05183 MHP, 2000 U.S. Dist. LEXIS 6243, at 30 (N.D. Cal. May 5, 2000), stay granted, No. 00-16401, No. 00-16403, 2000 U.S. App. LEXIS 18688 (9th Cir. July 28, 2000), motion ruled upon, No. C 99-05183 MHP, No. C 00-0074 MHP, 2000 U.S. Dist. LEXIS 20668 (N.D. Cal. Aug. 10, 2000), injunction granted, 114 F. Supp. 2d 896 (N.D. Cal. 2000), affirmed in part and reversed in part, No. 00-16401, No. 00-16403, 2001 U.S. App. LEXIS 1941 (9th Cir. Feb. 12, 2001), amended by 239 F.3d 1004 (9th Cir. 2001).

[523] *Digital Millennium Copyright Act 1998* 17 U.S.C. § 512(a); In 17 U.S.C. § 512(a), the DMCA limits the *"liability of online service and Internet access providers for copyright infringements occurring online. Subsection 512(a) exempts qualifying service providers from monetary liability for direct, vicarious, and contributory infringement and limits injunctive relief."*

[524] *A & M Records, Inc. v. Napster, Inc.* No. C 99-05183 MHP, 2000 U.S. Dist. LEXIS 6243 at 25.

[525] The Napster system created a *"roadmap"* of sorts, enabling one Napster user's computer to locate and connect to the computer of another Napster user for the purpose of retrieving music files directly. In other words, music files were not transmitted through the Napster system, but rather directly between Napster users, via the Internet.

[526] *A & M Records, Inc. v. Napster, Inc* 2000 U.S. Dist. LEXIS 6243 at 28.

[527] *A & M Records, Inc. v Napster Inc.*, 114 F. Supp. 2d 896 (N.D. Cal. 2000), affirmed in part and revesed in part, No. 00-16401, No. 00-16403, 2001 U.S. App. LEXIS 1941 (9th Cir. Feb. 12, 2001), amended by 239 F.3d 1004 (9th Cir. 2001); On July 26, 2000, Judge Patel issued the preliminary injunction against Napster. However, the opinion is dated August 10, 2000 and, as indicated in footnote 32 of the opinion, the preliminary injunction was stayed by the Ninth Circuit Court of Appeals on July 28, 2000. *Napster Inc.*, 114 F. Supp. 2d at 927 & footnote.32.

of Appeals, at which time, the appellate court stayed the order, allowing Napster to continue operating pending further orders of the US Ninth Circuit Court of Appeals.[528]

On October 2, 2000, the US Ninth Circuit Court of Appeals heard arguments in Napster's appeal from the preliminary injunction granted by the US District Court.[529] In an anxiously awaited opinion issued on February 12, 2001, the Court affirmed in part, reversed in part, and remanded the case back to the US District Court[530] The Court found that although the lower court's preliminary injunction required modification, the RIAA had substantially and primarily prevailed on appeal.[531]

The Court found no error in the US District Court's determination that the plaintiffs presented a prima facie case of direct copyright infringement by Napster users and would likely succeed in establishing that Napster users did not have a 'fair use' defence.[532] The Court also affirmed the US District Court's conclusion that the plaintiffs had demonstrated a likelihood of success on the merits of their contributory copyright infringement claim.[533] Moreover, the Court found that Napster's failure to police the systems, combined with a showing that Napster financially benefited from the continued availability of infringing files on its system, led to the imposition of vicarious liability.[534]

The Court went on to rule against Napster on all of its asserted defences.[535] However, the Court found the injunction issued by the District Court overbroad in that it placed the entire burden on Napster to ensure no infringement of the plaintiffs' copyrighted works occurred. The Court sent the injunction back to the District Court to be narrowed, and directed that the injunction place the burden on the plaintiffs to provide notice to Napster of what copyrighted works are available on the Napster system. The Court also stated, however, that Napster had the ability and duty to

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[528] *A & M Records Inc. v. Napster, Inc.*, No. 00-16401, No. 0016403, 2000 U.S. App. LEXIS 18688, at 1 (9th Cir. July 28, 2000) (decision without published opinion), motion ruled upon, No. C 9905183 MHP, No. C 00-0074 MHP, 2000 U.S. Dist. LEXIS 20668 (N.D. Cal. Aug. 10, 2000), injunction granted, 114 F. Supp. 2d 896 (N.D. Cal. 2000), affirmed in part and reversed in part, No. 00-16401, No. 0016403, 2001 U.S. App. LEXIS 1941 (9th Cir. Feb. 12, 2001), amended by 239 F.3d 1004 (9th Cir. 2001).
[529] See *A & M Records Inc. v. Napster, Inc.*, 239 F.3d 1004, 1004 (9th Cir. 2001).
[530] Ibid at 1029.
[531] Ibid.
[532] Ibid at 1019.
[533] Ibid at 1022.
[534] Ibid at 1024.
[535] Ibid at 1024-1027.

disable access to the copyrighted works, and that Napster is liable for all infringing files being traded on its system once a takedown notice has been sent by the plaintiffs.[536]

On remand, the US District Court modified its original preliminary injunction in a manner consistent with the decision of the US Ninth Circuit Court of Appeals on March 5, 2001.[537] The Court required the plaintiffs to provide Napster with notice of their copyrighted sound recordings

The Court further declared that the plaintiffs had to make a substantial effort to identify the infringing files, as well as the names of the artists and the titles of the copyrighted recordings.[538]

The Court also recognised that Napster's task would be made easier by searching its system against lists provided by the plaintiffs.[539] The Court imposed upon Napster the duty to prevent infringing files from being included in its index within three business days once Napster received reasonable notice of such files.[540]

The Court also essentially provided the plaintiffs with *a "pre-emptive strike option,"* which gave the plaintiffs the ability to provide Napster, in advance of the release of a new musical recording, the artist's name, the title of the recording, and the release date where there was a substantial likelihood of infringement on the Napster system."[541]

Following the US District Court's Order of March 5, 2001 Napster was obligated to remove from its database all copyrighted tracks identified as belonging to RIAA members. However, RIAA described the filtering of the digital music files as an "utter failure".[542] The RIAA again turned to Patel J., for help in controlling Napster. The problem was not that Napster was not actively

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[536] *Napster, Inc.,* 239 F.3d 1004 (reversing in part and remanding only for modification as to Napster's liability for contributory copyright infringement). In the interest of clearly ascertaining the underlying substantive legal principals involved in the Napster litigation, rather than becoming overly burdened with the procedural aspects of the case, this discussion has been written with limited references to the District Court opinion, focusing instead on the Ninth Circuit's affirmation of the lower court's various holdings.

[537] See *A & M Records, Inc. v. Napster, Inc.,* No. C 99-05183 MHP, MDL, No. C 00-1369 MHP, 2001 U.S. Dist. LEXIS 2186 (N.D. Cal. Mar. 5, 2001).

[538] Ibid at 5; see also Borland, J., *"Judge lets Napster live despite injunction"*, CNET News.com, 6 March 2001, located at http://news.cnet.com/news/0-1005-200-5039135.html?tag=rtldnws (accessed on 30 March 2008).

[539] Ibid at 5 and 6.

[540] Ibid at 6-7.

[541] Ibid at 8.

[542] Borland, J., *"Judge: Napster filtering efforts disgraceful"*, CNET News.com, 10 April 2001, located at http://news.cnet.com/news/0-1005-200-5567384.html (accessed on 14 May 2008); see also Hu, J., *"Napster looks for better filters"*, CNET News.com, 20 April 2001, located at http://news.cnet.com/news/0-1005-200-5681756.html?tag=rltdnws (accessed on 5 June 2008).

trying to filter out copyright material but that its members were actively circumventing the filters by the clever use of misspellings.[543]

On June 29, 2001 Napster disabled old versions of its software and blocked users from accessing the network unless they upgraded to the new software. However, visitors to the site on 2 July, 2001 were met with a standard message that file transfers had been suspended whilst Napster upgrades its databases. The reason given was that there was a glitch in the filtering software which was allowing copyright material through.[544]

As a result of the litigation and ongoing compliance costs Napster filed for bankruptcy and disappeared from cyberspace for nearly two years. Napster was relaunched as a legitimate service again in 2003 by Roxio Inc.[545]

5.1.3.2 MGM v Morpheus, Grokster and KaZaA[546]

On 3 October 2001, the Motion Picture Association of America ("MPAA")[547] and RIAA under the guise of Metro Goldwyn Meyer studios filed a law suit in the US District Court for the Central District of California against the defendants for copyright infringement.[548]

Morpheus, Grokster and KaZaA utilise the decentralised FastTrack P2P software platform. After the Napster decision, it was not long before software designers found a new way to restructure and redesign P2P software to avoid copyright infringement from the judicial interpretation in that case. Grokster, Morpheus and KaZaA were three such software designers that utilised the popular FastTrack P2P software platform. Instead of having a centralised system that catalogues all the files available for downloading, Grokster, Morpheus and KaZaA software is completely decentralised.

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[543] Massey, R., *"Spelling – The End for Napster"*, Entertainment Law Review, Issue 8, 2001, p.249.
[544] Ibid.
[545] The Examiner, op.cit.
[546] *MGM v. Morpheus, Grokster and KaZaA* 380 F.3d 1154 (9th Cir.), certiorari granted, 125 S. Ct. 686 (2004); No. 01-CV-8541 SVW (C.D.Cal. 2001); 243 F.Supp.2d 1073 (C.D.CA 2003); 259 F.Supp. 2d 1029 (C.D.CA 2003).
[547] For further detail of "MPAA" see Glossary of Terms at p.23 of this thesis.
[548] Boulton, C., *"MPAA, RIAA Sue File-sharers"*, Siliconvalley.internet.com, 3 October 2001, located at http://siliconvalley.internet.com/news/article.php/897061 (accessed on 23 September 2008); see also Schoen, K., *"Metro-Goldwyn-Mayer v. Grokster: Unpredictability in Digital Copyright Law"*, Northwestern Journal of Technology and Intellectual Property Law, Vol. 5, No. 1, 2006, p.158.

During the time it took to have the matter heard Consumer Empowerment BV sold their business to Australian established and Vanuatu incorporated company Sharman Networks. On 12 July 2002 the plaintiffs dropped Consumer Empowerment BV and enjoined a host of defendants involved with KaZaA and Sharman Networks. On 23 April 2003 Wilson J, of the US District Court of California dismissed the lawsuit filed by MPAA and RIAA against StreamCast Networks and Grokster.[549]

In an almost complete reversal of previous victories for the record labels and movie studios, Wilson, J. ruled that StreamCast, parent of the Morpheus software, and Grokster were not liable for copyright infringements that took place using their software.[550] The ruling did not directly affect KaZaA software distributed by Sharman Networks at that point in time. Wilson, J. had not yet ruled whether the Australia-based Sharman Networks could be sued in the U.S.[551]

The music industry, not happy with this result appealed the case to the US Ninth Circuit Court of Appeals in August 2004. The Court upheld the US District Court's decision.[552] The music industry then appealed the case to the US Supreme Court.[553] Both the US District Court and US Ninth Circuit Court of Appeals had applied the *Sony Corp. of America v. Universal City Studios* decision[554] ("Sony") and found that Grokster and StreamCast were not liable for infringement, because their P2P software had 'substantially non-infringing uses'.[555]

Therefore, the strict legal question for the US Supreme Court was whether the lower courts had applied the *Sony* decision correctly, despite the evidence that Grokster and StreamCast intended that the software be used for infringement.[556]

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[549] Borland, J., *"Judge: File-swapping tools are legal"*, CNET News.com, 25 April 2003, located at http://news.com.com/Judge+File-swapping+tools+are+legal/2100-1027_3-998363.html (accessed on 1 June 2008).
[550] Ibid.
[551] Ibid.
[552] McGuire, D., *"At a Glance: MGM v. Grokster"*, Washingtonpost.com, 28 March 2005, located at http://www.washingtonpost.com/wp-srv/technology/articles/groksterprimer_033805.htm (accessed on 18 May 2008).
[553] Hilden, J., *"File sharing goes before Supreme Court"*, CNN.com, 16 February 2005, located at http://www.cnn.com/2005/LAW/02/16/hilden.fileswap/ (accessed on 18 February 2008).
[554] *Sony Corp. of America v. Universal City Studios, Inc.* 464 U.S. 417 (1984).
[555] Smalley, S., *"Grokster: round two in the peer to peer copyright fight"*, Butterworths, Internet Law Bulletin, Vol. 8, No. 5, August 2005, p.66; See also Hall, H., *"The Day the Music Died: The Supreme Court's Reversal of MGM Studios, Inc. v. Grokster and its Impact on Secondary Liability for Copyright Infringement"*, 35 Journal of Law and Education 387, 2006., p.391.
[556] Yen, A., *"Third Party Copyright After Grokster"*, 91 Minn. L. Rev. 184, 2006, p.188.

Behind the legal argument, MGM was offering the US Supreme Court an invitation to change the balance set in *Sony*, and to recast it more favourably for the owners of copyright.

On appeal to the US Supreme Court, the seven member judges reached no clear decision on whether to change the balance set in the *Sony* decision. In part this is because the Grokster case was distinguished on its facts from *Sony*. In *Sony* there was no evidence of an unlawful intent on behalf of the technology developers, and therefore liability had to be inferred from the nature of the video recorder itself. By contrast, there was evidence of unlawful intent in *MGM v. Grokster*.[557]

The US Supreme Court held that the lower courts had misapplied *Sony* because they had focussed too closely on the 'substantially non-infringing' test.[558] Souter J's reasoning was that just because a device satisfied that test did not give the defendants blanket protection.[559] In this case, the relevant issue was contributory copyright infringement by inducement:

> *"…one who distributes a device with the object of promoting its use to infringe copyright, as shown by clear expression or other affirmative steps taken to foster infringement, is liable for the resulting acts of infringement by third parties."*[560]

In drawing away from looking at what uses the software had the US Supreme Court re-directed its focus on the intention of the defendants (both Grokster and StreamCast). The task then became easier for the US Supreme Court to find the defendants both liable for inducement based on the following facts:

(1) Although the software operated from a decentralised system, neither Grokster nor StreamCast needed to know what files were being transferred, they both admitted that they knew that their uses were mainly downloading copyrighted files.[561]

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[557] Giblin, R., *"On Sony, Streamcast and Smoking Guns"*, European Intellectual Property Review, Vol. 29, No. 6, 2007, p.216.
[558] Hudson, A., op.cit., p.906.
[559] Ganley, Paul, *"Surviving Grokster: Innovation and the Future of Peer-To-Peer"*, European Intellectual Property Review, Vol. 28, No. 15, 2006, p.14.
[560] *Metro Goldwyn Mayer Studios Inc. v. Morpheus, Grokster and KaZaA* 125 S.Ct. 2764 per Souter J at 2779-2782.
[561] Ibid.

(2) Both Grokster and StreamCast had responded to emails from users by giving advice on downloading copyrighted files. There was evidence that they both encouraged users to download copyrighted files.[562]

(3) There was evidence that Grokster, and StreamCast, aggressively planned to pick up Napster's customers if Napster was shut down after its litigation.[563]

(4) Both Grokster and StreamCast designed their business models around copyright infringement. For example, advertised themselves as having more popular copyrighted material than others; and derived revenue from the success of the sites (that is the revenue was based on advertising and becoming a more popular site meant higher advertising revenues).[564]

(5) Neither Grokster nor StreamCast made any real attempt to prevent copyright infringement.[565]

Although each of these factors were not enough to establish inducement on its own, when considered together they established a 'clear expression' that the P2P software had been distributed with the 'object of promoting its use to infringe copyright.'[566]

Souter J, delivered the leading judgment on this issue and found it unnecessary to go on and re-examine the legal test in *Sony*.[567] Souter J remanded the case to the lower courts for reconsideration of the initial summary judgment.

Ginsberg J (with two consenting judges) agreed with Souter J that the case should be remanded, on the basis of Grokster's intent. However, he went on to find that even if the issue of intent was not conclusive, and the only question was whether Grokster and StreamCast's software was capable of substantially non-infringing uses, the case should still be remanded for

[562] Ibid.
[563] Ibid.
[564] Ibid.
[565] Ibid.
[566] Ibid.
[567] Ibid at 2777-2778.

reconsideration.[568] In other words, Ginsberg J was prepared to rule against Grokster and StreamCast on the basis of *Sony*.

Ginsberg J distinguished *Sony* on the basis that there had been no close examination of what constituted 'substantial' non-infringing use. In deciding whether there had been a 'substantial' non-infringing use in this case, Ginsberg J gave a narrow interpretation to the protection offered by *Sony*. Ginsberg J held that the evidence overwhelmingly established that Grokster and StreamCast's software was used to infringe, and that Grokster and StreamCast derived its revenue from that infringement.[569] Ginsberg J was unconvinced by Grokster and StreamCast's evidence that the software had substantially non-infringing uses.

Breyer J (with two consenting judges) agreed with Souter and Ginsberg JJ on the issue of intent and inducement. Breyer J (with two consenting judges) also went on to examine *Sony*, but took a wider view of the *Sony* test than Ginsberg J. Breyer J was more inclined to accept the evidence that there were substantial non-infringing uses for the software.[570]

Breyer J held that although those uses only amounted to approximately 9 per cent of the total use, they were enough under the *Sony* standard to be 'substantial'. Breyer J was also mindful that the *Sony* test only required that the technology be 'capable' of substantial uses, and was persuaded by the evidence that legitimate uses for the Grokster software would increase over time.

Breyer J was very conscious that *Sony* had created a deliberate policy of giving technology developers a wide scope to invent new technology without fear of prosecution and was loath to disturb it. Breyer J held that it would not be in the public interest to increase the standard required for an innovator to gain the protection of *Sony* (for example, by requiring an innovator to prove substantial non-infringing uses for their invention with business plans, profitability estimates and projected technological modifications).[571]

The Supreme Court was split three to three on whether *Sony* should be read narrowly, or whether it should continue to give broad protection to technology developers. The seventh judge, Souter

[568] Ibid at 2786-2787.
[569] Ibid at 2786.
[570] Ibid at 2791-2792.
[571] Ibid.

J, did not rule directly on the issue. Nevertheless, in a footnote to his judgment, Souter J held that if there was no evidence that a defendant intended to induce copyright infringement, that intent could not be inferred simply from the fact that a defendant failed to take affirmative steps to prevent copyright infringement.[572] That would, Souter J held "tread too closely to the Sony safe harbour".[573] This could be interpreted to mean that Souter J was reluctant to disturb the balance set in *Sony*. However, Souter J stated that the possibility to reverse the balance set in *Sony* would be left "for a day when that may be required".[574]

MGM v. Grokster was handed down to the lower courts for re-determination. The defendant Grokster settled with the plaintiffs shortly after the US Supreme Court decision for US$50 million. On 14 February, 2006, the plaintiffs filed a motion for summary judgment in the US District Court and Sharman soon after agreed to a tentative Settlement Agreement with the plaintiffs in August 2006 for US$115 million after the KaZaA decision in Australia. StreamCast was the only defendant left in the action and the Court dismissed StreamCasts' arguments and awarded summary judgment in favour of the plaintiffs for inducing copyright infringement.

5.1.3.3 Universal Music Australia Pty Ltd & Ors v. Sharman Licence Holdings Ltd & Ors[575]

The first case regarding P2P software to have tested the Australian Copyright provisions under the *Copyright Act 1968* (Cth) was the case against the KaZaA P2P service operated by Sharman Networks ("Sharman's Case").[576]

On 29 November 2004, the recording industry brought an action in the Federal Court to stop illegal P2P file sharing by Sharman Networks. They also wanted to recover compensation for past illicit downloads, estimated by some to be worth billions of dollars.[577]

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[572] Ibid at 2779.
[573] Ibid.
[574] Ibid.
[575] *Universal Music Australia Pty Ltd & Ors v. Sharman Licence Holdings Ltd & Ors* [2004] FCA 183 (4 March 2004); [2004] FCA 934 (1 July 2004); [2004] FCA 1463 (27 October 2004); [2005] FCA 1242 (5 September 2005).
[576] Mackenzie, K., *"Battle brews over net music"*, The Australian, 20 January, 2004; See also Montgomery, G., and Warne, D., *"Inside the Kazaa Raid"*, APC Magazine, May 2004, p.22, located at, http://news.dmusic.com/article/12034 (accessed on 14 August 2008).
[577] Butler, S., *"Music industry, Sharman face off in Australia"*, CNET News.com, 9 December 2004, located at http://www.cnet.com.au/mp3players/musicsoftware/0,39029154,40002881,00.htm (accessed on 26 December 2008).

On the 6th February, 2004 raids were conducted by the MIPI unit on technology companies, their key executives, universities and several internet service providers.[578] After a six month inquiry by the MIPI unit of the Australian Record Industry Association, the recording industry secured an Anton Piller order permitting a surprise search of offices and homes to avoid any potential loss or destruction of evidence.[579]

The Federal Court of Australia delivered its judgment on 5 September, 2005 and held a number of companies and individuals involved in the operation of the KaZaA P2P file sharing service liable for authorising infringement of copyright by Australian users of the service.[580]

The decision was handed down not long after the decision by the US Supreme Court in the Grokster Case which overturned earlier rulings in favour of the operators of other P2P file sharing systems.[581] Wilcox J had stated early on in his judgment that he did not find any assistance from the decision and the reasoning applied by the US Supreme Court in the *Grokster* case.[582] However, there are parallels in the findings concerning the knowledge and encouragement by operators of P2P services of copyright infringement by their users.

By the beginning of 2004 the KaZaA system was the most popular P2P file sharing system on the Internet.[583] The service permitted users to search for and download files from other users of the network. Search requests were transmitted to other computers, known as supernodes, and these held stored indexes of the files held on other users' computers on the network. When the requested file was located, information concerning its location was sent to the requesting computer and the requesting computer downloaded the file directly from the other computer located.[584]

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[578] Montgomery, G., and Warne, D., op.cit., p.20.
[579] ABC News Online, *"Court battle looms over Kazaa"*, ABC News Online, 27 November 2004, located at http://www.abc.net.au/news/newsitems/200411/s1252954.htm (accessed on 30 November 2008).
[580] *Universal Music Australia Pty Ltd &Ors v. Sharman License Holdings & Ors* [2005] FCA 1242; also located at http://www.austlii.edu.au/cgi-bin/disp.pl/au/cases/cth/federal%5fct/2005/1242.html?query=title%28universal+%20near+%2e+sharman%29 (accessed 1 March 2008).
[581] Ibid.
[582] Ibid at paragraph [30], Wilcox, J citing *MGM v Grokster* 125 S.Ct. 2764.
[583] Ibid at paragraph [182].
[584] Williams, M., and Seet, S., *"Kazaa file sharing system found liable for authorising infringement of copyright"*, Internet Law Bulletin, Vol. 8, No. 7, October 2005, p.93.

When a KaZaA user made a search request to download a particular song or film title, the user was offered downloads of infringing 'blue files' made available by other users connected to the system by placing them in their KaZaA 'My Shared Folder', and other non-infringing 'gold files' which were claimed to be licensed content.[585]

The Federal Court held six of the ten respondents liable for authorising acts of copyright infringement by Australian KaZaA users[586] and entering into common design with each other to do so.[587]

Firstly, they were found to have authorised the reproduction of sound recordings in Australia by Australian users of the KaZaA service.[588] The Federal Court found that the service was used to download unauthorised music files in extremely large numbers.

Secondly, they were found to have authorised the communication of sound recordings to the public by Australian KaZaA users who placed music files in the My Shared Folder that were accessible by other KaZaA users.[589]

The Federal Court issued a general injunction against the continued operation of the KaZaA service with a caveat that the service could continue to be operated without breach of the injunction if within two months the respondents implemented filters to reduce copyright infringement.[590]

By way of explanation of the orders, Wilcox J described the balancing of interests in this way:

> *"I am anxious not to make an order which the respondents were not able to obey, except at the unacceptable cost of preventing the sharing of files which do not infringe the applicants' copyright. There needs to be an opportunity for the relevant respondents to modify the KaZaA system in a targeted way, so as to protect the applicants' copyright*

[585] *Universal Music Australia Pty Ltd &Ors v. Sharman License Holdings & Ors* [2005] FCA 1242; also located at http://www.austlii.edu.au/cgi-bin/disp.pl/au/cases/cth/federal%5fct/2005/1242.html?query=title%28universal+%20near+%2e+sharman%29 (accessed 1 March 2008) at paragraph 182.
[586] Ibid.
[587] Ibid.
[588] Ibid, Wilcox, J's Formal Orders p.4.
[589] Ibid.
[590] Ibid, Wilcox, J's Formal Orders 4 and 5 at pp.4-5.

interests (as far as possible) but without unnecessarily intruding on others' freedom of speech and communication. The evidence about keyword filtering and gold file flood filtering indicates how this can be done. It should be provided that the injunctive order will be satisfied if the respondents take either of these steps."[591]

The case contained a useful discussion of the principles of authorisation under the Australian copyright law and provides guidance as to the way those principles can be applied in the online environment. The Federal Court had regard to recent authorisation cases *of Australian Performing Right Association v Metro on George*[592] and the *Universal Music Australia Pty Ltd v. Cooper*[593] *cases*.

The Federal Court considered the effect of s.101(1A) of the *Copyright Act 1968* (Cth) on the application of authorisation principles to the internet activity. The section requires a court to consider the following factors when determining whether a person authorised a primary act of infringement:

(a) the extent (if any) of the person's power to prevent the doing of the act concerned;

(b) the nature of the any relationship existing between the person and the person who did the act concerned; and

(c) whether the person took any other reasonable steps to prevent or avoid the doing of the act, including whether the person complied with any relevant industry codes of practice.[594]

In considering these factors, Wilcox J confirmed that the High Court's test for authorisation liability established in *University of New South Wales v. Moorhouse*[595] namely that authorisation involves an inquiry as to whether a person had 'sanctioned, approved or countenanced' the

[591] Ibid, Wilcox, J's Summary p.5.
[592] *Australian Performing Right Association v Metro on George* (2004) 61 IPR 575.
[593] *Universal Music Australia Pty Ltd & Ors v. Cooper & Ors* [2005] FCA 972.
[594] *Universal Music Australia Pty Ltd & Ors v. Sharman License Holdings & Ors* [2005] FCA 1242 at paragraph [359].
[595] *University of NSW v. Moorehouse and Angus & Robertson (Publishers) Pty Ltd* (1975) 133 CLR 1.

primary infringing conduct, remained the applicable test even after the introduction of s.101(1A) of the *Copyright Act 1968* (Cth).[596]

Although not a factor included in s.101(1A) of the *Copyright Act 1968* (Cth), Wilcox J considered that knowledge, or lack of knowledge, was 'an important factor' in determining whether a person had authorised infringement.[597] However, Wilcox J also considered that 'mere knowledge' is not enough to establish liability.[598]

Wilcox J made a number of factual findings that supported the respondents being found liable for authorising infringement of copyright by KaZaA users.

(1) The respondents were aware that the predominant use of the KaZaA system was the sharing of copyright infringing material.[599]

(2) The respondents had the present ability to curtail, even if they could not entirely prevent, the sharing of copyright files on the KaZaA service.[600]

(3) None of the respondents had any interest in preventing or curtailing the predominant use of the system. The respondent's financial interests were dependent on maintaining the level of traffic through the service[601] for advertising revenue.

(4) The respondents engaged in positive acts that would have had the effect of encouraging copyright infringement. [602]

(5) The Federal Court found that warnings and disclaimers appearing on the KaZaA website and End User Licence Agreement did not 'amount to reasonable steps to prevent or avoid the infringements'.[603]

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[596] *Universal Music Australia Pty Ltd & Ors v. Sharman License Holdings & Ors* [2005] FCA 1242 at paragraph [366].
[597] Ibid at paragraph [370].
[598] Ibid.
[599] Ibid at paragraphs [194] and [184]-[186].
[600] Ibid at paragraphs [411] and [414].
[601] Ibid at paragraphs [191]-[194] and [466].
[602] Ibid at paragraph [405].
[603] Ibid at paragraph [407].

(6) Despite its attempts to separate its activities and responsibilities from Sharman's, Altnet was found to be a joint venturer and 'co-principal' with Sharman in the KaZaA operation.[604] Sharman and Altnet were technologically and financially intertwined.[605] (7)

(7) Nikki Hemming and Sharman Networks were found to have modified the KaZaA service to reduce Sharman's ability to control the activities of users. .[606]

The Federal Court also considered a number of defences raised by the respondents, including technical objections to findings of infringement, s.112E of the *Copyright Act 1968* (Cth) and jurisdictional issues concerning relief.[607]

A technical argument that the act of downloading a sound recording did not constitute an infringement of copyright under Australian copyright law was not accepted. The Federal Court held that the downloading of a digital music file to a computer involved the making of a 'copy' of a sound recording within the meaning of the *Copyright Act 1968 (Cth).*[608]

Section 112E was raised by the respondents as a defence to liability for authorisation. Section 112E of the *Copyright Act 1968* (Cth) provides a defence to an authorisation of Copyright infringement in circumstances where:

"A person (including a carrier or carriage service provider) who provides facilities for making, or facilitating the making of, a communication is not taken to have authorised any infringement of copyright in an audio-visual item merely because another person uses the facilities so provided to do something the right to do which is included in the copyright."

The respondents argued that they provided 'facilities' within the meaning of s.112E and that they could not be found liable for authorisation merely because another person (in the case of KaZaA users) used the facilities to infringe copyright.[609]

[604] Ibid at paragraph [468].
[605] Ibid at paragraphs [121]-[123].
[606] Ibid at paragraph [445].
[607] Ibid at paragraphs [388]-[390].
[608] Ibid at paragraphs [412]-[413].
[609] Ibid at paragraphs [390]-[391] and [393]-[394].

Wilcox J held that the KaZaA service was a 'facility' for the purposes of s.112E. However, the provision did not confer "general immunity to a finding of authorisation' and that it did not preclude the possibility that a person who 'falls within the section may be held, for other reasons, to be an authoriser."[610] On the basis of its findings concerning Sharman's activities, the Federal Court held that "Sharman is and was more than a messenger."[611] Central to the ruling of authorisation by Wilcox J was the finding that the respondents had sufficient control over the operation and use of the service by virtue of actual or possible filtering mechanisms. This was the case even though they could not control:

> *"…the decisions of individual users as to whether or not they would engage in file sharing and, if so, which particular works they would place in their 'My Shared Folder' file or download from other people."*[612]

On 23 March 2006, in another episode of the KaZaA saga, the Australian Record companies were back in Court petitioning the Full Federal Court to enforce the ruling by Wilcox, J. The Full Federal Court handed down its decision concerning the trial judge's powers in relation to the failure by Sharman Networks to comply with the court's orders.[613]

The relevant order concerned changes to the KaZaA Internet file-sharing system to limit future infringements by users of the software. The Full Court held that the trial judge is entitled to make a finding of contempt against Sharman Networks and its associates in relation to their alleged failure to implement orders made by Wilcox J at first instance.[614]

As a result of a settlement agreement with the music industry in August 2006, the owners of KaZaA paid US$115 million (AUD$151 million) compensation for past infringements, and agreed to convert KaZaA to a legal downloading business offering licensed music.[615]

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[610] Ibid at paragraph [399].
[611] Ibid at paragraph [418].
[612] Ibid at paragraph [414].
[613] *Universal Music Australia Pty Ltd v. Sharman Networks Ltd* [2006] FCA 29 (30 January 2006); [2006] FCFCA 41 (23 March 2008).
[614] Ibid.
[615] Hearn, L., "*Kazaa capitulates, settles piracy case*", The Age, 28 July 2006, located at http://www.theage.com.au/news/digital-music/kazaa-capitulates-settles-piracy-case/2006/07/27/1153816326515.html (accessed on 30 July 2008).

5.1.4 Internet Service Providers[616]

5.1.4.1 RIAA v Verizon[617]

On 20 August 2002, RIAA filed for an order in the US District Court to be granted an information subpoena in its dispute with the Internet Service Provider (ISP) Verizon.[618] On 21 January, 2003 Bates J ruled that Verizon must identify a subscriber who had illegally made available more than 600 copyrighted music files over the Internet using KaZaA's P2P service.[619]

On 30 January 2003 Verizon filed a stay on the order to the US Court of Appeals based on a breach of privacy if they were to identify the user.[620] The US Court of Appeals dismissed Verizon's argument by stating its reasons that, when Congress enacted the *Digital Millennium Copyright Act 1998* ("DMCA"), it deliberately balanced the interests of Internet Service Providers ("ISPs") and copyright holders.[621] ISPs were given immunity from liability for piracy on their networks, while copyright holders were given a quick and efficient mechanism to learn the identity of computer users who were stealing their works.[622]

However, in a victory against the recording industry the US Court of Appeals for the District of Columbia Circuit on December 19, 2003 held that it was not sufficient for the RIAA to simply send to an ISP a form subpoena demanding the identity of a particular Internet subscriber as RIAA had claimed was proper under the DMCA.[623]

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[616] See Appendix 1 for a summary of cases brought against ISP's. See also further reported litigation against ISPs in *Elektra Entertainment Group et al v. Does 1-6.* US District Court Eastern District of Pennsylvania 04-CV-1241; *CRIA v. Bell/Sympatico, Rogers Communications Inc., Shaw Communications Inc., TELUS Corporation and Videotron Telecom Ltd* 2004 FC 488 (Ottawa, Ontario 31 March 2004).
[617] *RIAA v. Verizon* 2003 U.S. App. LEXIS 25735 vacating and remanding 240 F. Supp. 2d 24 (D.D.C. 2003); CA 02-MS-0323 (D.D.C. 2002).
[618] King, B., *"New Salvo in Piracy, Privacy War"*, Wired News, 21 August 2002, located at http://www.wired.com/news/mp3/0,1285,54678,00.html (accessed on 24 August 2008).
[619] Krim, J., *"Judge Orders Internet Providers To Help Trace Online Pirates"*, Technews.com, 21 January 2003, located at http://www.washingtonpost.com/ac2/wp-dyn?pagename=article&node=&contentId=A23100-2003Jan21&notFound=true (accessed on 18 July 2008).
[620] Ibid.
[621] Ibid.
[622] Ibid.
[623] Tech Law Journal, *"DC Circuit Reverses in RIAA v. Verizon"*, Tech Law Journal, 19 December 2003, located at http://www.techlawjournal.com/topstories/2003/20031219.asp (accessed on 19 July 2008).

The decision reversed the January ruling by the U.S. District Court that ordered Verizon to comply with the RIAA's subpoena request to reveal the identities of customers who allegedly infringed copyrights using P2P file-sharing networks.[624]

The subpoena was issued under a provision of the *Digital Millennium Copyright Act 1998* ("DMCA") that allowed copyright holders to obtain from a court subpoenas that had not been reviewed by a judge and required no notice to, or opportunity to be heard by, the alleged infringer.[625] Unlike a usual subpoena, which requires some underlying claim of a crime, under the DMCA, a subpoena could be issued by a court clerk who only checks to make sure the subpoena form is properly filled out.[626]

Rather, the court held, the RIAA had to first file a civil lawsuit against the "John Doe" defendants, and then seek a subpoena.[627] The DMCA subpoena procedure, it ruled, only applied to materials hosted by an ISP such as information stored on its servers but not materials for which the ISP merely acts as a conduit, such as P2P exchanges.[628]

RIAA appealed to the US Supreme Court on 24 May, 2004 by filing a petition for a writ of certiorari to review the decision of the District of Columbia Circuit Court of Appeals, which held that a wave of subpoenas seeking the names, addresses, and telephone numbers of thousands of Internet subscribers through a "rubber stamp" process was unlawful.[629] On the 12 October, 2004 the US Supreme Court declined to hear the motion and elected to let the lower court ruling stand.[630]

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[624] Ibid.
[625] Ibid.
[626] Ibid.
[627] McGuire, D., *"Court Rejects Music Industry Subpoenas"*, Washington Post, 19 December 2003, located at http://www.washingtonpost.com/ac2/wp-dyn/A14836-2003Dec19?language=printer, (accessed on 22 December 2008).
[628] Ibid.
[629] Petition for a Writ of Certiorari by RIAA dated 24 May 2004 located at http://www.eff.org/legal/cases/RIAA_v_Verizon/20040524_Verizon_RIAA_Cert_Petition_Final.pdf (accessed on 22 May 2008).
[630] Writ of Certiorari denied by the US Supreme Court on 12 October 2004, petition no.03-1579 and 03-1722 located at http://supct.law.cornell.edu/supct/html/101204.ZOR.html (accessed on 22 May 2008).

5.1.4.2 *Sony Music Entertainment (Australia) Ltd & Ors v. The University of Tasmania & Ors*[631]

On 19 February 2003, the major record companies instigated a legal battle with Australian universities over students' alleged use of university networks to engage in illegal file swapping.[632]

The hearing took place in the Australian Federal Court between Sony, EMI and the Universal Music companies and the Universities of Sydney, Melbourne and Tasmania (Universities).[633] The legal proceedings were commenced in order to obtain information containing evidence of copyright infringement occurring on the Universities' computer networks. The action was commenced by the music companies as a preservation measure to ensure the records were not destroyed either routinely, by accident or otherwise, pending the hearing of the preliminary discovery application.[634]

The music companies asked the court to allow their computer experts to scan the computers at the Universities for sound files and e-mail accounts so they could gather evidence of alleged widespread copyright violations.[635] After initial resistance by the Universities, they agreed to preserve files as evidence, but refused to automatically release all the information to the music companies or their investigators. [636]

All three Universities fought the music companies' interlocutory application for discovery to release the data to its investigators. The matter came before Tamberlin J in the Federal Court who essentially allowed the music companies' application for discovery subject to the claim of privilege.[637]

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[631] *Sony Music Entertainment (Australia) Ltd & Ors v. The University of Tasmania & Ors* [2003] FCA 532.
[632] Hayes, S., *"Uni MP3 showdown begins"*, News.com.au, 10 April 2003, located at http://news.com.au/common/story_page/0,4057,6263463%5E15306,00.html (accessed on 9 May 2003).
[633] Kendall, C., *"Copyright Piracy and the P2P Polemic"*, Intellectual Property Forum, Issue 53, June 2003, p.3.
[634] Lee, C., *"Copyfight between the music industry and universities"*, Intellectual Property Bulletin, Vol. 16, No. 5, September 2003, p.69.
[635] Ibid.
[636] Pearce, J., *"Music industry demands investigation of University court conduct"*, ZDNet, 29 May 2003, located at http://www.zdnet.com.au/music-industry-demands-investigation-of-university-court-conduct-120274919.htm (accessed on 17 September 2008); see also Pearce, J., *"AU Universities likely to hand over alleged piracy information – soon"*, ZDNet, 30 May 2003, located at http://www.zdnet.com.au/au-universities-likely-to-hand-over-alleged-piracy-information-soon-120274977.htm (accessed on 17 July 2008).
[637] Lee, C., op.cit.

The music companies sought discovery and inspection orders pursuant to Order 15A Rules 3 and 6 of the Federal Court Rules (the Rules).[638]

Central to the dispute was the meaning of 'document' in the case. A 'document' is defined by the Rules to "include any record of information and any other material or data stored or recorded by mechanical or electronic means." The music companies identified that the 'documents' for these proceedings related to activity logs.[639]

These records were stored on electronic backup tapes, CD-ROMs and computer hard drives of the Universities. The music companies contended that the CD-ROMs and backup tapes were 'documents' within the meaning of Rules 3 and 6 and consequently that they were entitled to discovery of all the information included on them and access to the documents would likely assist in ascertaining identity and in making a decision whether to commence proceedings.[640]

The Universities opposed the application on the basis that the Federal Court's power to order discovery under the Rules did not extend to empower discovery in relation to documents which did not relate to the description of the person concerned.[641]

Further, the Universities argued that in order to provide access to the files sought by the music industry they would have had to provide access to other files not sought by the music industry which would have breached the *Privacy Act 1988* (Cth).[642]

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[638] Rule 3 applies:

(a) where the music companies have made reasonable inquiries but are unable to ascertain the description of the person sufficiently for the purpose of commencing legal proceedings; and
(b) where the university has knowledge to facts or documents which tend to assist in the ascertainment of the person's identity,

the Court may order the universities to make discovery of all documents in its possession relating the description of the person concerned to the music companies.

Rule 6 applies:

(a) where there is reasonable cause to believe that the music companies have the right to obtain relief from the universities;
(b) where after making all reasonable inquiries, the music companies do not have sufficient information to decide whether to commence legal proceedings against the university for copyright infringement; and
(c) where there is reasonable cause to believe that the universities possess any document, the inspection of which would assist the music companies in deciding whether they have a right to obtain relief,

the Court may order the universities to make discovery to the music companies of any such document

[639] Lee, C., op.cit., p.70.
[640] Ibid.
[641] Ibid.

On 30 May 2003, Tamberlin J deferred handing down formal orders but indicated he would order the Universities to provide copies of their network records to the music industries' technology expert who would search the files on a strict non-disclosure basis.[643]

On 18 July 2003, Tamberlin J delivered his judgment in favour of the applicants (Music and ordered the Universities to provide copies of their network records to the music industries' expert.

The parties were back in the Federal Court on 29 July 2003 in relation to the interpretation of the discovery orders. Justice Tamberlin ordered the respondents (Universities) to bear the costs of the discovery process and in determining the data to be handed over argued that access should be granted to the material and that backup copies of deleted files should be tested to see whether anything useful could be recovered.[644] Tamberlin J stated that "deleted files are equal to overwritten files" when one of the respondents (University of Sydney) pointed out that the backup tapes in question had accidentally been overwritten and therefore did not have any forensic value for the applicants.[645]

While there was considerable 'suspicion over the accidental overwriting' the ruling fuelled the applicants to pursue a possible contempt of court challenge against the University of Sydney. The result was a small but significant victory for the respondents, as it was dismissed and the applicants ordered to pay costs.[646]

To date the music industry has not proceeded against the Universities for copyright infringement. The case was a warning to universities to exercise a higher degree of control over activities conducted on their computer systems by their users. Most universities have their own internal disciplinary procedures for dealing with staff and students who continually download copyright

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[642] Lee, C., *"Music giants battle Australian universities over internet copyright infringement"*, Intellectual Property Law Bulletin, Vol. 15, No. 10, April 2003, p.149.
[643] *Sony Music Entertainment (Australia) Ltd & Ors v. The University of Tasmania & Ors* [2003] FCA 532; and Broucek, V., Frings, S., and Turner, P., "*The Federal Court, the Music Industry and the Universities: Lessons for Forensic Computing Specialists*", School of Information Systems University of Tasmania, 2003, p.2, located at http://scissec.scis.ecu.edu.au/conference_proceedings/2003/forensics/pdf/20_final.pdf (accessed on 4 December 2008).
[644] *Sony Music Entertainment (Australia) Ltd & Ors v. The University of Tasmania & Ors* [2003] FCA 805 (29 July 2003).
[645] Broucek, V., Frings, S., and Turner, P., op.cit.
[646] *Sony Music Entertainment (Australia) Ltd & Ors v. The University of Tasmania & Ors* [2003] FCA 929; See also Broucek, V., Frings, S., and Turner, P., op.cit.

material. Most universities now have implemented technological impediments to discourage illegal file swapping of music and movie files.

5.1.5 Websites[647]

5.1.5.1 UMG & Ors v. Cooper & Ors[648]

The case concerned a website operated by Stephen Cooper under the name of 'mp3s4free.net'. The primary content of the website was a series of links to music recordings in the MP3 format. When an Internet user accessed these links, the result was the automatic download of files stored at the location identified by the URL from remote websites to that user's computer.[649]

Cooper did not create these links himself, but set up his website in a way that permitted the creators of remote websites to post links without the need for Cooper's intervention or approval.[650] No payment was required to use mp3s4free.net website or to download the music files.[651]

Cooper's website included various statements regarding the legality of downloading MP3 files.[652] No explicit statement was made as to whether it was legal to download the music recordings to which Cooper's website provided the links. The 'Terms and Conditions' section of the website included a statement that using these recordings for anything other than personal or educational purposes was illegal without the permission of the copyright owner. The site also

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[647] See Appendix 1 for a summary of cases brought against Website Providers. See also further reported litigation against Website Providers in *Arista Records, Inc., et al. v. Sakfield Holding Company S.L., et al.* 03-CV-01474 (District Court for the District of Columbia, 2003); *BPI v. JetGroove* (Unreported settled out of Court); *IFPI v Baidu* (see Chinaview.com, *"Baidu loses first round of copyright dispute"*, Chinaview.com, 20 September 2005, located at http://news.xinhuanet.com/english/2005-09/20/content_3515251.htm (accessed on 24 September 2008); *Sony Music Entertainment (Hong Kong) & ors v Chinamp3.com* (see IFPI's *Digital Music Report 2006*, p.19, located at http://www.ifpi.org/content/library/digital-music-report-2006.pdf (accessed on 29 December 2008); *BMG Australia Ltd* v. *S.11* (Unreported settled out of Court).

[648] *Universal Music Australia Pty Ltd & Ors v. Cooper & Ors* [2004] FCA 78 (13 February 2004); [2005] FCA 972.

[649] Strasser, S., op.cit., p.70.

[650] *Universal Music Australia Pty Ltd & Ors v. Cooper & Ors* [2005] FCA 972 per Tamberlin J at paragraphs [20]–[23].

[651] Ibid at [5].

[652] Note http:// MP3s4Free.net accessed in December 2004 (now removed) in the "Frequently Asked Questions" section under the question "Are MP3s Legal?" it read:
"MP3s are both legal and illegal. It is legal when the song's copyright holder has granted permission to download and play the song. It's still legal if you encode the MP3 for personal use, however it is illegal to distribute or trade MP3's without permission from the song's copyright holder."

had a disclaimer that none of the files on that site were stored on its servers and the site was just providing links.[653]

At the time the action was brought, the mp3s4free.net website was hosted by an Internet Service Provider ("ISP") owned and run by E-Talk Communications Pty Ltd and Com-Cen Pty Ltd (together 'the ISP'). The website and the ISP had entered into a commercial advertising and traffic-sharing agreement,[654]

In October 2003, Universal Music Group and five other major record companies brought an action against Cooper and the ISP alleging copyright infringement. On 24 October 2003, as a result of injunctive actions, mp3s4free.net ceased operations.[655]

It was not for some two years later on 14 July 2005 that Tamberlin J of the Federal Court heard the substantive arguments of the case. On 19 September 2005 Tamberlin J provided his reasons for judgment. The Federal Court held Cooper to have violated the exclusive right of reproduction by copying MP3 files onto his own computer.[656] Cooper's use of linking did not result in direct infringement of the right of communication to the public.[657] Tamberlin J explained that when internet users downloaded such files, by means of the links posted on Cooper's website, infringing communication of those works was involved. However, the communication was committed by the operators of the remote websites that posted the infringing files, and not by Cooper, whose website hosted links to those files.[658] As the sound recordings were not stored on Cooper's website, the files did not pass through Cooper's website when downloaded by a user, and so Cooper did not 'make available' the infringing files. Neither did Cooper take part in the 'electronic transmission' of those files. The sound recordings were transmitted between the remote website operators and the users downloaded the sound recordings.[659]

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[653] *Universal Music Australia Pty Ltd & Ors v. Cooper & Ors* [2005] FCA 972 per Tamberlin J at [30].
[654] Strasser, S., opcit.
[655] *Universal Music Australia Pty Ltd & Ors v. Cooper & Ors* [2005] FCA 972 per Tamberlin J at paragraphs [44] and [45].
[656] Ibid at paragraphs [54]-[56] referring to s.85(1)(a) of the *Copyright Act 1968* (Cth).
[657] Ibid at paragraphs [57]-[68] and [100] referring to ss.85(1)(c), 101(1) and 101(1A) of the *Copyright Act 1968* (Cth).
[658] Ibid at paragraphs [66]-[68].
[659] Ibid at paragraphs [64]-[68].

However, Cooper's use of links on his website taken together with his website were held to be an illegal authorisation of copyright infringing material because the site permitted not only the posting of infringing copies of sound recordings to the site by the operators of the remote websites but also permitted the downloading of those recordings by the website users.

The Federal Court considered s.101(1A) of the *Copyright Act 1968* (Cth) to determine whether Cooper authorised a primary act of infringement and whether Cooper had any control over the infringing act.[660]

The Federal Court found that Cooper maintained sufficient control over his website to enable him to 'take steps' to prevent the infringement.[661] Cooper designed his website to allow the operator of a remote website to post links. In addition the website was constructed so that these links would cause the automatic download of files identified by the URL itself. Finally Cooper made no efforts to determine whether the MP3 files that the links identified were non-infringing copies of the relevant sound recordings.[662]

While the ISP had not directly infringed the communication right, they had also authorised copyright infringement (by the operators of the remote websites posting the links and by the internet users who downloaded the files) by hosting Cooper's website. Tamberlin J concluded that the ISP was aware of the activities enabled by Cooper's website, and of the possible illegality of those activities.[663] The fact that Cooper and the ISP were in a commercial arrangement in which Cooper displayed the Com-Cen logo on the home page in exchange for free hosting services demonstrated that there was a real financial reason for acquainting themselves with the activities of the website.[664] With reference to the factors taken into account under s.101(1A) of the *Copyright Act 1968* (Cth), Tamberlin J noted that the ISP had the power to take down the website but chose not to do so, and did not take any other steps to stop the infringing activity.[665]

[660] Ibid at paragraphs [83]-[86].
[661] Ibid at paragraph [86].
[662] Ibid at paragraph [85].
[663] Ibid at paragraph [122].
[664] Ibid at paragraph [118]-[121].
[665] Ibid at paragraph [121].

Tamberlin J held that s.112E of the *Copyright Act 1968* (Cth) had no application in relation to the applicant's claim of direct infringement by Cooper pursuant to s.101 of the Act or the claim of secondary infringement pursuant to s.103 of the Act.[666] The defence under s.112E of the Act applies only to infringement by authorisation and the circumstances in the case had not convinced Tamberlin J that Cooper (or for that matter the ISP) would be afforded this defence because he had encouraged users to download infringing material and specifically structured and arranged the website so as to facilitate this downloading.[667]

On 18 December 2006, the Full Court of the Federal Court in *Cooper v. Universal Music Australia Pty Ltd*[668] rejected an appeal by Cooper and the ISP against the decision of Tamberlin J. Similarly, leave to appeal to the High Court was also rejected.[669]

This case provides an important warning to those operating and hosting websites. If it is within the power of an individual or organisation to take steps to prevent infringements and where the website is set up to enable such acts, and if the organisation or individual is aware that infringements may be occurring, then the onus is on them to take reasonable steps to prevent those infringements.

5.1.6 Individual File Traders[670]

The music industry in the past was reluctant to pursue and prosecute individuals downloading music as it was nearly impossible to track and a public relations nightmare.[671] Shutting down websites that post infringing music has been met with mixed results because another website

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[666] Ibid at paragraphs [97]-[98] referring to s.112E of the *Copyright Act 1968* (Cth).
[667] Ibid at paragraph [99], [126] and [131]. See also discussion of s.112E defence in section 5.1.3.3 of this thesis in *Universal Music Australia Pty Ltd & Ors v. Sharman Licence Holdings Ltd & Ors* [2004] FCA 183 (4 March 2004); [2004] FCA 934 (1 July 2004); [2004] FCA 1463 (27 October 2004); [2005] FCA 1242 (5 September 2005).
[668] *Cooper v. Universal Music Australia Pty Ltd* [2006] FCAFC 187 (18 December 2006).
[669] MIPI media release, "*High Court refuses Cooper Appeal*", 15 June 2007, located at http://www.mipi.com.au/IgnitionSuite/uploads/docs/MediaRelease-HighCourtrefusesCooperappealpressrelease.pdf (accessed on 13 August 2008).
[670] See Appendix 1 for a summary of cases brought against individuals. See also further reported litigation against Individuals in *RIAA v. Jeffrey Gerard Levy* (D. Or. 1999); *RIAA v. Scott Wickberg* (D.Ok. 2000); *RIAA v. Brianna LaHara* (Unreported settled out of court); *The Finnish Group of IFPI v. Anon* (District Court of Jyvaskyla, Finland, 2002); *Koda, et al. v. Anon.* (VL B-1943-99 and VL B-2089-99 Western High Court, Denmark, 2001); *IFPI* v. *Anon* (Unreported, Feurth, Germany); *IFPI v. Anon* (Local Court of Cottbus, Germany, 95 Ds 1653 Js 15556/04); and see particularly the Australian action of *Commonwealth Director of Public Prosecutions v. Le, Ng and Tran* (Local Court NSW, Chief Magistrate Graeme Henson, 18 November 2003).
[671] Borland, J., *"RIAA lawsuits yield mixed results"*, CNET News.com, 4 December 2003, located at http://news.com.com/2100-1027-5113188.html?part=dtx&tag=ntop (accessed on 11 December 2008).

usually appears to take its place. The enforcement agencies initially focussed on preventing digital distribution by litigating against the software providers of P2P technologies and linking/compilation website operators. [672]

However, the music industry adopted another strategy to pursue individuals simultaneously that make available large amounts of digital music for file swapping.[673] Enforcement agencies began filing lawsuits against its largest group, young people and college students, and not surprisingly that strategy was not well received by the public.[674]

5.1.6.1 Recent lawsuits filed by RIAA against individual file traders

Previously, the enforcement agencies had only pursued individuals that had set up or provided a file trading service. The next phase of attack against individuals came against those that were merely users of these systems.[675]

RIAA announced on 9 September, 2003 that they had filed 261 new lawsuits against individual file traders.[676] Since September 2003, RIAA has been relentlessly initiating monthly lawsuits against suspected individual file traders with the total number of law suits against individuals totalling over 35,000 as at 19 December 2008.[677]

On 31 March 2004 IFPI, getting in on the action, announced its initial round of lawsuits against individuals who it asserted illegally shared files of copyrighted music. They initiated 247 suits against alleged file sharers in Denmark, Germany, Italy and Canada.[678]

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[672] Mackenzie, K., *"Music piracy crackdown"*, The Australian, 30 April 2002.
[673] Borland, J., *"RIAA embarks on new round of piracy suits"*, CNET News.com, 21 January 2004, located at http://news.com.com/2100-1027-5144558.html?part=dtx&tag=ntop (accessed on 26 January 2008); See also Reuters, *"U.K. music industry swipes at swappers"*, Reuters News, 25 March 2004, located at http://news.com.com/2100-1026-5179121.htm (accessed on 23 April 2008).
[674] Ghosemajumder, S., *"RIAA lawsuits may destroy the music industry"*, Media, Entertainment and Technology, 25 June 2003, located at http://shumans.com/articles/000028.php (accessed on 30 June 2008).
[675] Ibid.
[676] Mark, R., *"RIAA Files 261 Lawsuits Against Alleged Music Pirates"*, DC Internet.com, 8 December 2003, located at http://dc.internet.com/news/article.php/3073931 (accessed on 24 February 2008).
[677] McGill, D., *"New Year, New Catch-22: Why the RIAA's Proposed Partnership With ISPs Will Not Significantly Decrease the Prevalence of P2P Music File Sharing"*, 29 Loy. L.A. Ent. L. Rev. 353, 2008-2009, p.353; See also McBride, S., and Smith, E., *"Music Industry to Abandon Mass Suits"*, The Wall Street Journal, 19 December 2008, located at http://online.wsj.com/article/SB122966038836021137.html (accessed on 21 December 2008).
[678] Hines, M., *"File-sharing lawsuits go abroad"*, CNET News.com, 30 March 2004, located at http://news.com.com/File-sharing+lawsuits+go+abroad/2100-1027_3-5181872.html (accessed on 1 April 2008).

In several other countries selected cases against individuals offering music files without authorisation have also been filed. Enforcement agencies:

- in Denmark brought civil claims against 150 P2P users in December 2002;[679]
- in Italy conducted criminal raids of 75 P2P uploaders and server operators in May 2003;[680]
- in Switzerland obtained a criminal conviction of an uploader on a P2P service in May 2003;[681] and
- in Taiwan brought criminal prosecutions of P2P users.[682]

In 2004 IFPI brought further lawsuits against bulk uploaders of music in Austria, Canada, Denmark, France, Germany, Italy and UK. By October 2007, IFPI had initiated approximately 20,000 law suits against individuals in over 17 countries. IFPI's latest wave of lawsuits in October 2005 extended the litigation strategy for the first time into South East Asia, Latin America, Hong Kong, Singapore and Argentina.

5.1.7 Consequences of the litigation

The music industry initially had mixed results from their litigious actions. The music industry had some early wins (i.e. Napster) and some bad losses (i.e. Grokster case at first instance, Verizon and Diamond). Recently, with the music industry lobbying government and influencing recent legislative changes to the copyright law in their favour, the music industry has had a much higher success rate in court. The high success rate has been well publicised which brought many of the software providers to negotiate settlements with the music industry prior to their cases going to court.

The cases illustrate that software manufacturers can be held liable for the infringing activities of consumers who use their software. Manufacturers have to measure whether their software would authorise or induce consumers to infringe copyright.

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[679] IFPI's *Online Music Report 2004*,op.cit., p.17.
[680] Ibid.
[681] Ibid.
[682] Ibid.

This means that entrepreneurs and inventors must not only bear the costs of bringing new products to market, but also the costs of lawsuits if consumers start using their products for illegal purposes. These considerations run the risk of stifling innovation and creativity with many software developers and manufacturers modifying their products to please copyright owners rather than the consumers. Technological restrictions hinder creativity and overcomplicate the use of what should be a simple product.

Nonetheless, there will always be an underground element of music piracy[683] with many P2P developers designing future platforms to avoid judicial interpretation of copyright law or simply ignoring the law. Therefore it is likely that the music industry will remain vigilant against any threat to their market and will lobby changes to the law and adjust their litigation patterns to capture new platforms as they emerge.

[683] Best, J., "*Illegal file-sharing three times as popular as iTunes*", Silicon.com, 30 November 2005, located at http://www.zdnet.com.au/news/software/soa/Illegal-file-sharing-three-times-as-popular-as-iTunes/0,130061733,139224996,00.htm (accessed on 13 December 2008).

CHAPTER 6 – A LEGAL ANALYSIS

6.1 THE RULES OF ENGAGEMENT

Over the next few chapters in the thesis, the writer will review all the aspects of copyright law relevant to sound file distribution and infringement over the internet. As part of the review the writer will also provide an analysis of the suite of legal measures and remedies available to copyright owners in music against copyright infringement by unauthorised digital distribution.

At the beginning of the digital music distribution battle the rules of copyright law were well known by music pirates, but as the battle with the music industry developed the rules changed. For various reasons copyright law in Australia has had significant amendment since 2000. The majority of amendments to the *Copyright Act 1968* (Cth) (the "Act") were required to meet Australia's obligation under the *Australia-US Free Trade Agreement*. Many of these amendments have not been judicially considered but analysis of the legislation has been undertaken by the writer in this chapter to determine the rights of copyright owners, software manufacturers and users to file sharing of digital music files. The purpose of this chapter is to analyse the effectiveness of copyright law in addressing the fragile balance between copyright owner's rights to protect their works and the rights of users to have access to those works to further their right to cultivate socio-cultural participation, creation and innovation.

6.1.1 A legal framework to work with – The beginning

Most experts agree that copyright legislation has had difficulties keeping up with the development of technology.[684] A few years ago this legislation trailed the fast paced developments in digital technology, but in the last few years much work has been done to close this gap. International treaties and agreements have been drafted to include rights in digital copyright and distribution. The problem that has arisen now is to enforce the new laws, despite the fact the public has been slow in adapting to these, especially when law enforcement on the Internet has been very difficult.

[684] Holthusen, S., "*The Napster Decision: Implications for Copyright Law in the Digital Age"*, University of Queensland Law Journal, Vol. 21, Issue 2, Annual 2001, p.245; See also Tung, L., "*Google, Yahoo make lawmakers impotent, says Judge*", ZDNet.com.au, 22 February 2008, located at http://www.zdnet.com.au/news/security/soa/Google-Yahoo-make-lawmakers-impotent-says-Judge/0,130061744,339286214,00.htm (accessed on 5 March 2008) referencing comments made by Justice Kirby.

6.1.2 Australian Copyright Law – How does it fit?

It is important to note from the outset that the concepts of fair use and vicarious and contributory infringement discussed in many of the US cases contained in Chapter 5 are not recognised in Australian law. Australian copyright law, instead, contains the narrower concepts of authorisation and fair dealing.

Whilst the current Act has been amended numerous times, six notable amendments have been made in the last decade which have had a significant bearing on the creators and owners of musical works, sound recordings and the technologies used in the digital distribution of these works and the users of these works and technologies with the incorporation of the following amending acts:

(1) *Copyright Amendment (Digital Agenda) Act 2000* (Cth) ("Digital Agenda Act");
(2) *Copyright Amendment (Moral Rights) Act 2000* (Cth) ("Moral Rights Act");
(3) *Copyright Amendment (Parallel Importation) Act 2003* (Cth);
(4) *US Free Trade Agreement Implementation Act 2004* (Cth) ("FTA");
(5) *Copyright Legislation Amendment Act 2004* (Cth) ("Amending Act"); and
(6) *Copyright Amendment Act 2006* (Cth).

This chapter of the thesis shall address the underlying rights and interests at stake when sound recordings are illegally traded and whether digital music files and the practice of uploading and downloading digital music files through P2P networks infringes copyright under the Australian Act. The analysis shall also focus on the practices of caching and the roll of Internet Service Providers and will then address the issue of music and technological protection measures and Electronic Digital Rights Management Information ("EDRMI"). Finally, the defences to digital distribution will be examined.

6.1.3 Australian Copyright Regime and Music

Copyright protection in Australia is provided by the *Copyright Act 1968* (Cth) and protects two classes of copyright material. These are:

(a) "Works"; and

(b) "Subject matter other than works".

Works include literary, dramatic, artistic and musical works as provided in Pt III of the Act. Other subject matter includes sound recordings, films, television broadcasts, sound broadcasts and published editions of works as provided in Pt IV of the Act. For any particular piece of music, there are two components in which there can be copyright ownership – the original works (musical works which include the score and a literary work if the work contains lyrics) and the sound recording of that work.[685]

6.1.3.1 Originality

For a musical work to obtain copyright protection, the work must be original. The main requirement of originality is that the work must not be copied from another work, but should originate with the author.

> *"The word 'original' does not in this connection mean that the work must be the expression of original or inventive thought. Copyright Acts are not concerned with the originality of ideas, but with the expression of thought…The originality which is required relates to the expression of the thought. But the Act does not require that the expression must be in an original or novel form, but that the work must not be copied from another work, but should originate from the author."*[686]

In the context of a digital music file it is presumed that the files contain original works and/or sound recordings. However, it is understood that not all musical works and lyrics are subject to copyright; for instance, in many classical musical works copyright has expired.

6.1.3.2 Copyright in Original Musical Works

A song may comprise several different types of copyright works, each with different owners. The score of a song is a musical work (the composer's composition), the words a literary work (the writer's lyrics) and ownership lies with the authors of these original works.[687] The copyright in these works is quite separate and additional from any copyright in recordings of the song that

[685] Simpson, S., op.cit., p.155; See also Lau, T., *"Australia v Napster: how would Australian courts respond?"*, Australian Intellectual Property, Vol. 14, No. 10, April 2002, p.123.
[686] *University of London Press Ltd v. University Tutorial Press Ltd* [1916] 2 Ch. 607 at 608.
[687] s.35(2) of the *Copyright Act 1968* (Cth).

may be owned by the maker.[688] Therefore the 'maker' of a sound recording will be the copyright owner. Section 97(3) of the Act provides a default rule where the maker of a sound recording is the person who provided for valuable consideration or agreement the making of the sound recording and that person is usually the record labels.[689]

Section 189 of the Act defines musical work to be "a musical work in which copyright subsists". This definition does not adequately provide a statutory definition for a 'musical work'. The term musical work is not defined in the Act. All scores for songs, for example, jingle advertisements, pop songs, or operatic arias are musical works. They enjoy the same type and level of protection irrespective of their musical merit or qualities.[690] Although the Act does not provide an adequate definition of a musical work some understanding of the meaning can be gleaned from the earlier Australian *Copyright Act 1905* (Cth). Section 4 of the Australian *Copyright Act 1905* (Cth) defined "musical work" as "any combination of melody and harmony, or either of them." This may be narrower than music's general meaning, which is the *"sounds in melodic or harmonic combination whether produced by voice or instruments."*[691] In the UK case of *Hyperion Records Limited v Sawkins*[692], Mummery LJ shed some light on the meaning of a 'musical work' and said the following:

> *"In the absence of a special statutory definition of music, ordinary usage assists: as indicated in the dictionaries, the essence of music is combining sounds for listening to. Music is not the same as mere noise. The sound of music is intended to produce effects of some kind on the listener's emotions and intellect. The sounds may be produced by an organised performance on instruments played from a musical score, though that is not essential for the existence of the music or of copyright in it. Music must be distinguished from the fact and form of its fixation as a record of a musical composition. The score is the traditional and convenient form of fixation of the music and conforms to the requirement that a copyright work must be recorded in some material form. But the fixation in the written score or on a record is not in itself the music in which copyright*

[688] s.113 of the *Copyright Act 1968* (Cth).
[689] s.97(2) and (3) of the *Copyright Act 1968* (Cth).
[690] See *Sawkins v Hyperion Records Limited* [2004] EWHC 1530 (Ch) per Mummery LJ at 31; See also McKeough, J., and Stewart, A., *Intellectual Property in Australia*, 2nd Edition, Sydney, Butterworths, 1997, p.149.
[691] *Sawkins v Hyperion Records Limited* [2004] EWHC 1530 (Ch) at 55, Patten J quotes the Shorter Oxford Dictionary.
[692] *Hyperion Records Limited v Sawkins* [2005] EWCA Civ 565.

subsists. There is no reason why, for example, a recording of a person's spontaneous singing, whistling or humming or of improvisations of sounds by a group of people with or without musical instruments should not be regarded as "music" for copyright purposes."[693]

Although a statutory definition of "musical works" was omitted from the Australian *Copyright Act 1968* (Cth), the definition of "musical work" contained in s.4 of the Australian *Copyright Act 1905* (Cth) is still used as a reference to determine the meaning of the term.[694]

The term "work" is also not defined. It does, however, have two features. Firstly, to indicate that trivial or insubstantial items are not protected. Secondly, to indicate that what are protected are not the ideas or concepts of the author but the physical manifestation of those ideas or concepts in the form of a composition, sheet music or artwork for a CD cover.[695]

The essence of a work is that it is the product of the creator's skill and labour and this is what the term "work" is used to describe. Therefore a musical song can be made up of a combination of musical works (the score) and literary works (the lyrics) and ownership lies with the authors of these original works.

6.1.3.3 Copyright in Sound Recordings

The Act provides that a 'sound recording' means 'the aggregate of the sounds embodied in a record'.[696] The term 'record' includes a variety of storage devices,[697] and would appear to extend to recordings made in a variety of formats, from analogue forms of storage (such as reel to reel tape and cassettes) through to digital media. The copyright in a sound recording protects the particular sounds embodied in that record.

There may be a separate copyright in any literary, dramatic or musical works that have been recorded owned by the authors of these works.[698] Furthermore, the rights of the maker being the

[693] Ibid at 53 per Mummery LJ.
[694] McKeough, J., and Stewart, A., op.cit.
[695] Ricketson, S., and Richardson, M., *Intellectual Property Cases, Materials and Commentary*, 3rd Edition, Australia: Lexis Nexis Butterworths, 2005, p.178.
[696] s.10(1) of the *Copyright Act 1968* (Cth).
[697] Ibid.
[698] The copyright in a sound recording or film exists independently of any literary,

owner of copyright in a sound recording revolve around copying and communicating that recording, and it will not be an infringement of copyright for another person to make a 'sound-alike' recording.[699] However, such a recording may infringe copyright in any underlying literary, dramatic or musical works.

6.1.3.4 The Work must be Expressed in Material Form

Once a musical work can be classified as an original work pursuant to Part III of the Act then it must satisfy the necessary element that the musical work be recorded in a 'material form'.[700] Copyright only subsists in an original work once it has been 'made' or 'published'.[701] In the case of music, the relevant expression is 'made' once it has been written down or stored in some other material form, such as on computer, magnetic tape or other digital storage.[702] Works are 'published' when copies 'have been supplied, whether by sale or otherwise, to the public'.[703] In the case of sound recordings (being other subject matter pursuant to Part IV of the Copyright Act), the recording is 'made' when 'the first record embodying the recording is produced',[704] and 'published' 'if records embodying the recording have been supplied (whether by sale or otherwise) to the public'.[705]

A new definition of 'material form' was inserted into the Act as a result of the Free Trade Agreement (FTA) between Australia and the United States. The new FTA provisions came into force on 1 January 2005.

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dramatic or musical work that it embodies s.113 of the *Copyright Act 1968* (Cth). This means that multiple copyrights may subsist in relation to one object. For instance, a sound recording of a song may embody the following separate copyright works:
• a literary work (the lyrics);
• a musical work (the music); and
• a sound recording (the record on which sounds are embodied).

[699] see *CBS Records Australia v Telmak Teleproducts (Australia)* (1989) 9 IPR 440.

[700] s.10(1) of the *Copyright Act 1968* (Cth) definition of 'material form' in relation to a work or an adaptation of a work pre-FTA was "any form (whether visible or not) of storage from which the work or adaptation, or a substantial part of the work or adaptation, can be reproduced"

[701] s.22(1) of the *Copyright Act 1968* (Cth).

[702] Ibid.

[703] s.29(1) of the *Copyright Act 1968* (Cth).

[704] s.22(3) of the *Copyright Act 1968* (Cth).

[705] s.29(1) of the *Copyright Act 1968* (Cth).

The new definition expands on the previous definition to apply to all forms of storage including further reproductions and s.10(1) of the Act now defines 'material form' in relation to a work or an adaptation of a work as,

> *"any form (whether visible or not) of storage of the work or adaptation, or a substantial part of the work or adaptation, (whether or not the work or adaptation, or a substantial part of the work or adaptation, can be reproduced)."*

In relation to a copy of a sound recording, s.10(3)(c) of the Act states that,

> *"a reference to a copy of a sound recording shall be read as a reference to a record embodying a sound recording or a substantial part of a sound recording being a record derived directly or indirectly from a record produced upon the making of a sound recording."*

A new s.10(6) inserted by the FTA expands on s.10(3)(c) of the Act, to include that a reference to a copy of a sound recording in s.10(3)(c) of the Act includes "any form (whether visible or not) of storage of the sound recording, or a substantial part of the sound recording, (whether or not the copy of the recording, or a substantial part of the recording, can be reproduced)." The new provisions clarify the meaning of a "copy of a sound recording" in s.10(3)(c) of the Act by including that a copy of a sound recording can be in any tangible form and expands on the previous definitions to apply to all forms of storage of a work or other subject matter, whether or not it allows further reproductions (e.g. temporary reproductions).

6.1.3.5 Duration and Ownership

6.1.3.5.1 Original works

The author of a literary, dramatic, musical or artistic work is the person who first expressed it in material form. Ownership of copyright in the original music work is provided by s.35(2) of the Act. The FTA expanded the duration of copyright ownership in original works from 50 years to 70 years from the year of death of the author of that work for copyright works which have not expired before 1 January 2005.[706]

[706] s.33(2) of the *Copyright Act 1968* (Cth).

There may be multiple persons who have an exclusive copyright ownership in the original song. There can be persons who wrote the musical score, in addition to persons who penned the lyrics for that particular piece of music.[707] In the music industry, the copyright ownership of the musical score and the lyrics is generally vested in either the individual artists themselves or in the individual music composers, who are in the business of creating music for others to perform. These are generally licensed to the recording companies for a licence fee.[708]

6.1.3.5.2 Sound Recordings

Section 10(1) of the Act defines a 'sound recording' as 'the aggregate of sounds embodied in a record' and a 'record' is defined as 'the disc, tape, paper, or other device in which sounds are embodied'.

In relation to sound recordings, the 'maker' is the owner of copyright in a sound recording.[709] The Copyright Act defines the 'maker' as the person who 'owned' the 'first record' embodying the recording when that record was produced.[710] Put another way, the owner of a sound recording is the person 'who owns that material of the matrix or master tape at the time it is made'.[711] In practice, and depending on the arrangement between the artist and others (if any), this typically means that record companies become the owners of copyright in sound recordings.[712] The reason the record companies are the makers of the sound recording is because they usually organise the arrangements for the recording and have paid for or commissioned the master sound recording,[713] rather than the people who have had creative input into the recording (except the new performers rights introduced by the FTA as discussed below in section 6.1.3.5.3).

Ownership in a sound recording will continue to subsist for 70 years from the year of the first publication of the sound recording.[714]

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[707] Simpson, S., op.cit., pp. 159-160.
[708] Ibid.
[709] s.97(2) of the *Copyright Act 1968* (Cth).
[710] s.22(3) of the *Copyright Act 1968* (Cth).
[711] Simpson, S., op.cit.
[712] Ibid, p.160.
[713] s.97(3) of the *Copyright Act 1968* (Cth).
[714] s.93 of the *Copyright Act 1968* (Cth).

Generally, it is the various record companies that are in possession of the copyright in the sound recordings and which are licensed by the owners of the copyright subsisting in the original works to make such recordings.

6.1.3.5.3 Performers' Sound Recording Copyright

The *US Free Trade Agreement Implementation Act 2004* (Cth) ("FTA") introduced an exception to s.22(3) for sound recordings of live performances.[715] In those cases, the 'makers' of the sound recording are:

"(a) the person or persons who, at the time of the recording, own the record on which the recording is made; and

(b) the performer or performers who performed in the performance (other than a performer who is already covered by paragraph (a))."[716]

The new FTA amendments give performers co-ownership rights in the sound recordings of their performances. The new amendments now separate sound recordings into two classes:

(a) sound recordings of a live performance; and

(b) other sound recordings.

A 'sound recording of a live performance' is defined as "a sound recording made at the time of the live performance, consisting of, or including, the sounds of the performance."[717]

For the purposes of s.22(3) it is normally the artist that will perform the sound recordings of live performances and usually a record company or a producer that will own the record on which the recording is made.[718] These two makers own the copyright jointly as tenants in common.[719] However, in most cases the record companies will use their significant bargaining power to negotiate a licence or assignment of these new performers rights in their recording contracts.

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[715] s 22(3A) of the *Copyright Act 1968* (Cth).
[716] Ibid.
[717] s.84 of the *Copyright Act 1968* (Cth).
[718] Rendell, J., *"Copyright Law in the new Millenium: Digital Downloads and Performance Rights"*, 81 Temp. L. Rev. 907, 2008, p.908.
[719] s.97(2A) of the *Copyright Act 1968* (Cth).

This ownership right needs to be read in light of Part III Division 6 of the Act ss.54-64 which states that "the maker of a sound recording must have made the recording with the license of the owner of the copyright subsisting in the original work."

6.1.3.5.4 Exclusive Licences

A party can only be afforded standing in an Australian court as the owner or exclusive licensee of the music or sound recording in which copyright subsists. If a sound recording is referrable to a digital music file being made available to users of a P2P network without the authorisation of the owner or exclusive licensee then this would amount to an infringement of copyright under s.101 of the Act.

Under the Act, an 'exclusive licence' is a licence from the copyright owner granting permission to the licensee "to the exclusion of all other persons, to do an act that, by virtue of [the] Act, the owner of the copyright would, but for the licence, have the exclusive right to do."[720] In other words, when a licence is granted by the copyright owner, the copyright owner still retains ownership and control over the rights but permits another to use one or more of the rights.

An 'exclusive licensee' of copyright has the authority to commence legal proceedings for infringement in their own right.[721] The notion of exclusivity requires that the act be within the bundle of exclusive rights conferred on the copyright owner, and that it be granted to the licensee to the exclusion of all others including the copyright owner.[722] The term 'act' in this regard infers that the exclusive acts comprised in the copyright can be divided and separated among one or more persons.[723]

In practice, recording artists sign an exclusive licence contract with a record company to exploit the music copyright and the artists in return get paid on a royalty basis. It is only since about 2001 have the record companies been negotiating the digital rights to the music copyright in their

[720] s.10(1) of the *Copyright Act* 1968 (Cth).
[721] s.119 of the *Copyright Act 1968* (Cth).
[722] Liberman, A., and Kremer, B., *"AUSFTA-time to reconsider Australian and US law regarding exclusive licences of copyright and patents?"*, Intellectual Property Bulletin, Vol. 17, No. 2, June 2004, p.29.
[723] Ibid.

contracts with the artists.[724] The record companies usually have the strongest bargaining position in negotiations with the artists regarding royalties.[725]

Since the introduction of the FTA amendments into the Act, record companies now seek exclusive licences for the copyright in artist's live performances in order for the record companies to retain and exploit the copyright in the artist's live concert performances for CDs, music DVD's and webcasting rights.[726]

In the new digital model, artists, major recording companies and music publishers (for sheet music) have so far retained their creative roles relating to the development of sound recordings. The record companies continue to maintain control of the copyright for their sound recording catalogues and continue to embark upon negotiating the licences of digital rights of their catalogues to online music retailers and services.[727]

[724] Wunsch-Vincent, S., and Vickery, G., op.cit., p.43; See also Barry Bull's interview answer to question 6 in Appendix 3.
[725] Ibid.
[726] See Interview with Marcus Fowler Annexure 3.
[727] Wunsch-Vincent, S., and Vickery, G., op.cit., p.47.

6.2 INFRINGEMENT

This part of the thesis will examine the elements required to establish whether the converting of a sound recording into a digital music file infringes copyright; whether playing a digital music file is deemed a reproduction or the making of a copy of a sound recording; and whether the act of uploading and downloading digital music files via the internet and P2P networks also infringes copyright.

The Act provides that the copyright in a musical work or a sound recording is infringed when:

- a person who is not the owner of copyright;
- performs in Australia 'any act comprised in the copyright' or authorises someone else to perform one of these acts;
- in relation to the whole or a 'substantial part' of the work;
- without the 'licence' (i.e. permission) of the copyright owner.[728]

The phrase 'any act comprised in the copyright' refers to the acts that copyright owners have the exclusive right to perform.[729]

The owner of copyright in a sound recording has the exclusive right to:

- make a copy of the recording;
- cause the recording to be heard in public;
- communicate the recording to the public; and
- enter into a commercial rental arrangement in respect of the recording.[730]

[728] ss.36(1) and 101(1) of the *Copyright Act 1968* (Cth).
[729] s.31(1) of the *Copyright Act 1968* (Cth).
[730] s.85(1) of the *Copyright Act 1968* (Cth).

The above category of infringement is referred to as 'direct infringement'. However, copyright can be infringed in other ways which are referred to as 'indirect infringement'. Indirect infringement of copyright results when a person authorises the doing of an act comprised in the copyright without the licence of the copyright owner. For example, if a person permits a place of public entertainment to be used for an unauthorised performance of a work then this would amount to an infringement of copyright[731] Certain commercial dealings with infringing articles (such as importing or selling bootleg CDs or DVDs) also constitute infringements of copyright.[732]

6.2.1 Right to Make a Copy or Reproduction

The term 'reproduction' is not defined in the Act. Whether a copyright work has been reproduced or not requires an assessment of the qualitative aspects of the alleged reproduction.

6.2.1.1 Reproductions in RAM

In the online environment, reproduction takes place both when a user first gains access (such as looking at a web-page) and their subsequent acts of access (such as copying and downloading content from the Internet).[733] As a consequence of these acts, the user's computer will automatically create a Random Access Memory ("RAM")[734] or cache[735] copy of the infringing material.[736] Accordingly, these acts of accessing digital content raise the question of whether a reproduction or copy of a substantial part of the copyright work has occurred.

An issue worth discussing is whether a user by accessing digital music files via online streaming or uploading and downloading and subsequently playing them from the Internet creates a reproduction or copy of the file in the RAM of a computer. When a user accesses a program such as a digital music file from the hard drive of the user's computer an exact copy of that program is moved to the RAM of the computer to allow the user to play the digital music file.

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[731] s.39 of the *Copyright Act 1968* (Cth).
[732] ss.37, 38 and ss.102, 103 of the *Copyright Act 1968* (Cth).
[733] Middleton, G., *"Copyright Conundrum – Liability of ISPs for Online Copyright Infringement"*, Australian Computer Society, Inc. This paper appeared at the Australasian Information Security Workshop 2005, Newcastle, Australia. Conferences in Research and Practice in Information Technology, Vol. 44, p.3, located at http://crpit.com/confpapers/CRPITV44Middleton.pdf (accessed on 16 June 2008).
[734] For definition of "RAM" see Glossary of Terms at p.24 of this thesis.
[735] For definition of "Cache" see Glossary of Terms at p.14 of this thesis.
[736] Ibid.

Similarly, when a user plays a digital music file from the Internet directly a temporary copy is also made in a computer's RAM.

Under the Act, copyright owners in literary, dramatic, musical and artistic works have the exclusive right to reproduce the work in material form.[737] In 2001, "material form" was defined in the Act as "any form (whether visible or not) of storage from which the work … can be reproduced".[738] Copyright owners in sound recordings have an exclusive right to make a copy of the sound recording.[739]

Some recent Australian cases can be distinguished as to whether the act of accessing material either by streaming, or by playing after downloading or copying a file from a CD causes a substantial reproduction, in a computer's RAM of the material contained in the computer program.

Microsoft v Business Boost[740] held that when material is stored in a computer's RAM, a reproduction of a substantial part of the computer program occurs.[741] The court found that there was a degree of permanence about the reproduction and it therefore constituted a reproduction pursuant to the Act:

> *"In relation to RAM, it is possible for a computer program to remain stored in RAM indefinitely until the computer system is shut down or otherwise powered down. Accordingly, in my opinion, it follows from this evidence that the period of time during which the instructions or data are stored in RAM can be substantial. For example, it is not infrequently the case that computers are left on for a considerable period of time with one or more programs running. The RAM storage continues over this period. The fact that memory is vacated when power is extinguished does not necessarily mean that there*

[737] s.31(1)(a)(i) of the *Copyright Act 1968* (Cth).
[738] Note: Pre-FTA definition of s.10(1) of the *Copyright Act 1968* (Cth) this definition has subsequently been amended by the FTA.
[739] s.85(1) of the *Copyright Act 1968* (Cth).
[740] *Microsoft v Business Boost* (2000) 49 IPR 573 per Tamberlin J.
[741] Ibid at 574.

has not been a substantial period of storage of the instructions and data comprised in the RAM memory."[742]

In comparison *Australian Video Retail Association v Warner*,[743] the Federal Court held that playing a DVD in a DVD playback device did not amount to a substantial reproduction in RAM.[744] Emmet J held that the playing of a DVD in a DVD player or personal computer is not a breach of the copyright in the film as it does not involve the making of a copy of the whole or a substantial part of the film contained in the DVD.[745] Emmett J explained that as only a small fraction of the audio visual content that comprised the film was stored temporarily for the purpose of exhibiting the motion picture this did not amount to the copying of a substantial part of the film embodied in the DVD.[746]

At first instance the Federal Court in *Sony v Stevens*,[747] considered the issue of whether the playing of a game on a Sony PlayStation game console amounted to a reproduction of a computer program or a film in the console's RAM. Sony's main argument was that their Boot Rom and regional access system was a TPM because it inhibited copies of computer games being reproduced in the gaming console's RAM . The court refused to accept this argument because the reproduction in RAM was so limited and temporary in character that it would not have amounted to a reproduction "in a material form" as required by the Act.[748]

The second argument put forward by Sony was that the playing of PlayStation games created a copy of a film in RAM. The court did not accept this argument either on the same grounds, that being, a substantial part of the film was not reproduced in RAM but more importantly because the film was not "embodied" in the console's RAM.[749]

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[742] Ibid at 576.
[743] *Australian Video Retail Association v Warner Home Video Pty Ltd* (2002) IPR 242.
[744] Ibid at 262-263.
[745] Ibid.
[746] Ibid.
[747] *Kabushiki Kaisha Sony Computer Entertainment v. Stevens* [2001] FCA 1379; [2002] FCA 906; [2003] FCAFC 157; [2005] HCA 58.
[748] Ibid, [2002] FCA 906 at paragraph [137].
[749] Ibid, [2002] FCA 906 at paragraphs [158]-[160].

As a result of the decisions in *Stevens* and *Australian Video Retailers Association v Warner Home Video Pty Ltd*[750] a reproduction of material in RAM will not amount to the taking of a substantial part to satisfy an infringing reproduction. A substantial reproduction will only take place if the copyright material is reproduced in a way and in a 'material form' to allow the temporary reproduction to be captured for further reproduction.[751]

The case was appealed by Sony[752] and the Full Federal Court reversed the decision on the issue of TPMs but the court more importantly addressed the issue in obiter as to whether playing a game and reproducing it temporarily in the RAM of the game console amounted to a reproduction in a material form for the purposes of the Act. The majority of the court confirmed the judge's decision at first instance and held that playing a game and temporarily reproducing it in the console's RAM did not result in a substantial reproduction in a material form, for the purposes of the Act.[753]

The majority of the Full Federal Court also confirmed the judge's decision at first instance that when a game is played, no copy of a film was made in RAM, because it could not be 'embodied in an article' as defined by the Act.[754]

Stevens next appealed the decision to the High Court[755] and it was the definition of 'material form' the High Court considered in determining the appeal. The main argument proposed by Sony was that the prerequisite for the reproduction to have been in 'material form' was met when the game code was reproduced in the RAM of the game console.[756] The High Court, in its assessment agreed that there was a reproduction of a 'substantial part' of the game code in RAM,

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[750] (2001) 53 IPR 242 at 262-3.
[751] [2002] FCA 906 at paragraphs [137, 147-8, 150] This position has now changed as a result of Article 17.4.1 of the *Australia-US Free Trade Agreement* which obliges Australia to enact laws giving copyright owners the right to prohibit all types of reproduction, in any manner or form, permanent or temporary. This change is implemented under the *US Free Trade Agreement Implementation Act* 2004 (Cth) which came into effect on 1 January 2005. The Act amends the definition of 'material form' and 'copy' in s.10 of the Act and creates an exception to infringement where the reproduction is made as part of the technical process of using a non-infringing copy of the copyright material (see ss.43B and 111B). The critical difference being that temporary reproduction of a whole or substantial part of a work in RAM generated from an infringing copy of the copyright material will be unlawful.
[752] *Kabushiki Kaisha Sony Computer Entertainment v Stevens* [2003] FCAFC 157.
[753] Ibid, per Lindgren J at paragraphs [168],[26]; and [208-210] .
[754] Ibid at paragraphs [181-3], [26]; and [222-4] referring to ss.10 and 24 of the *Copyright Act 1968* (Cth).
[755] *Kabushiki Kaisha Sony Computer Entertainment v. Stevens* [2005] HCA 58.
[756] Gonsalves, M., and Nagy, C., *"High Court Decides against Sony – but no green light for mod-chip suppliers"*, Malleson Stephen Jacques Alert, 7 October 2005, located at http://www.mallesons.com/publications/alerts/2005/8129813w.htm (accessed on 21 December 2008).

but held that the console's RAM would not amount to a "material form". The High Court dismissed the evidence from Sony, that contents in the console's RAM were not able to be reproduced without connecting the Mod-chip device.[757]

The High Court also considered in the appeal the issue of whether Stevens had 'copied a substantial part' of the computer game code. Sony raised the argument that their Boot Rom and region coding system averted copyright infringement by inhibiting the playing of copied games where a substantial part of an infringing copy of a film would be reproduced in the console's RAM.

In order for Sony to be successful on this ground it would have had to prove that the game comprised a film whilst stored in RAM, that it was transformed into an electronic data form and reproduced and that the form was 'embodied in an article'.

The High Court held that the game could be deemed a film under the Act, but came to a finding that Sony had not proven that a 'substantial part' of the film had been reproduced, and from the evidence it was not clear that storing a copy of a game on a console's RAM was sufficient to be 'embodied in an article' as required by the definition.

In summary, although the *Sony* case was determined on a number of different issues including TPMs, the High Court affirmed the Full Federal Court and the Federal Court's decision and reasoning that playing a game and temporarily reproducing it in the console's RAM did not result in a substantial reproduction in a material form for the purposes of the Act.

The High Court's decision in *Sony v Stevens* has been for the most part superseded by recent legislative amendments. The FTA compels Australia to enact laws consistent with Article 7.4.1. The changes to the Act required by Article 7.4.1 of the FTA will provide copyright owners with the right to preclude all types of reproduction, both permanent and temporary and in any manner or form.

The FTA amends the Act by introducing a new definition of 'material form' in section 10(1) which now excludes the condition that a work can be reproduced from a form of storage (whether digital or not). Likewise, the statutory definition of "copy" is amended in an analogous

[757] Ibid.

way. The result being that material may be "reproduced" if it is held in a form of storage (such as RAM), even though it can not be reproduced from that form of storage.

However, a new exception to infringement is introduced where the reproduction is made as part of a technical process of use (incidental reproductions) from a non-infringing copy, and where temporary copies are made in the process of communication.[758] For example the playing of a legitimate CD, DVD or a legitimately licensed copy of a digital music file. This exception is detailed further in section 6.5.1.2

It would seem clear that temporary reproductions of a whole or substantial part of an infringing copy of copyright material in RAM (including digital music files) generated from an infringing copy of the copyright material will be prohibited.[759] However, what remains unclear is whether or when a reproduction in RAM would amount to reproductions of a 'substantial' part.

The acts of accessing, uploading and downloading infringing digital music files would create reproductions of a whole or substantial part of an infringing copy in RAM and would be a strict infringement under the Act.

6.2.1.2 To make copies of the sound recording

A sound recording is deemed to have been copied if it has been converted into a digital form from an illegal copy.[760] When users employ computer software to compress music material into digital music files (i.e. such as Ripper[761] software) and then store the material onto a computer hard drive, users are compressing and storing material which is usually the subject of copyright and which is most often reproduced or copied without permission of copyright owners.

By engaging in these practices users are infringing the rights to reproduce the musical work in a material form and to make a copy of the sound recording. This is because the digital music files created would come within the scope of ss.21(1)(A) and 21(6) of the Act as they were created

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[758] Ibid.
[759] Fitzgerald, B., *"The Australian Sony Playstation Case: How Far will Anti-circumvention Law Reach in the Name of DRM?"*, QUT Law School, 2005, located at http://www.law.qut.edu.au/files/The_Australian_Sony_Playstation_Case.pdf (accessed on 31 December 2008).
[760] Van Caenegem, W., *"Napster and Gnutella: Is distributed file-swapping software legal in Australia"*, Australian Law & Technology Newsletter, Issue 25, 25 September 2000.
[761] See Glossary of Terms relating to the term "Rip" and "Ripping" at p.24 of this thesis.

from an illegal copy. Sections 21(1)(A) and 21(6) of the Act deem that digital conversions of works into different formats like MP3 are enough to satisfy such terms.

In the above circumstances, users are engaging in direct copyright infringement when they compress copyrighted sound recordings into a digital music format or download unauthorised digital music files from host users. When downloading illegitimate digital music files, users are in effect reproducing and making a copy of the digital music file stored on the host's computer, which is almost always copied without the permission of the copyright owner.

A new exception to copyright infringement inserted into the Act by the *Copyright Amendment Act 2006* (Cth) permits the user to make a copy of a legitimately purchased sound recording including the works contained in the sound recording in a different format for private and domestic use purposes (e.g. rip a CD track to an iPod or computer hard drive) without it being an infringement under the Act.[762] The exception does not extend to permitting the copy of the sound recording to be sold, hired, traded, distributed to friends, or heard in public, but may be borrowed by a member of the lender's family or household only for the member's private and domestic use. Unauthorised converting of illegitimately obtained sound recordings to digital music files and downloading of those digital music files amounts to an infringing copy of a sound recording and an infringement of the authors of the individual works comprised in the copyright (musical and literary works) whether or not it is for purely private or domestic purposes.[763]

6.2.2 The Right to Communicate to the Public

This thesis will now address the issue when a digital file embodying a sound recording infringes the copyright owner's exclusive right to communicate the works (music and literary works) and the recordings to the public. The *Copyright (Digital Agenda) Amendment Act 2000* introduced the technology neutral right "to communicate the work or other subject matter to the public" for owners of online copyright information and replaces the technology-specific rights "to broadcast the work or other subject matter" and "to cause the work or other subject matter to be transmitted to subscribers to a diffusion service".

[762] s.109A of the *Copyright Act 1968* (Cth).
[763] Van Caenegem, W., op.cit.

Section 10(1) defines 'Communicate' as "to make available on-line or electronically transmit (whether over a path, or combination of paths, provided by material substance or otherwise) a work or other subject matter". The intention of this right is not to protect the physical distribution of copyright material but rather cover methods by the means of "electronic" or "online" processes.

The communication right was first reflected in the *WIPO Copyright Treaty* ("WCT")[764] and then later in March 1998 when it was presented in the *Copyright Reform and the Digital Agenda Report*[765] , which stated that the:

> *"proposed transmission right would apply to transmissions to the public in the traditional non-interactive sense of 'broadcasting', that is, the emitting of signals from a transmitter to a receiving device at a time chosen by the person making the transmission. The person receiving a broadcast can only receive it at the time when the person making the broadcast chooses to make the transmission."*[766]

The Act did not define the terms "online" or "electronic" probably to prevent the risk that the terms would become technologically specific over time.[767]

The communication right consists of an active and passive element. It covers acts of transmission (active element) as well as "making available" (passive element). The Copyright Reform and the Digital Agenda Report and the *WIPO Copyright Treaty* 1996 stated that the communication right should also cover the concept of making the material available "to the public" *Copyright Reform and the Digital Agenda* noted:

> *"the right of making available to the public would be exercised when copyright material was made available to the public in such a way that it could be accessed at a time and a*

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[764] *WIPO Copyright Treaty* 1996.
[765] Copyright Convergence Group Report, "*Highways to Change - Copyright in the new communications environment*"; Copyright Reform and the Digital Agenda (Proposed Transmission Right, Right of Making Available and Enforcement Measures) Commonwealth Discussion Paper, March 1998.
[766] Ibid at 4.11.
[767] Bollen, R., "*Copyright in the Digital Domain*", Murdoch University Electronic Journal of Law, Vol. 8, No. 2., June 2001, located at http://www.murdoch.edu.au/elaw/issues/v8n2/bollen82_text.html#Communication_T (accessed on 27 June 2008).

place chosen by members of the public. This right is designed to cover interactive on-demand services."[768]

The communication right gives the copyright owner the right to control whether their material is made available online irrespective of how or to what degree it may be accessed. This gives the copyright owner an enforcement right on how their works are made available without having to prove any actual transmission or access to the work has occurred, which is difficult to prove in the digital environment. Secondly, the communication right also covers situations where people are able to access or use content without exercising the reproduction or transmission rights.

In *Woolworths Ltd v Olsen & Anor*[769] the NSW Supreme Court held the act of sending emails containing copyright material to a single email address constituted a 'reproduction' of the material on the defendant's mail server (which was capable of a further reproduction when the sent emails were either downloaded or deleted).[770] Therefore, the defendant had infringed copyright even though the emails were never opened.

The plaintiff also claimed that the defendant had infringed their copyright because the defendant had made a 'communication to the public'. However, Einstein J disagreed, holding that two emails to the same account did not constitute the 'public'.

"At a more general level, it appears to me that to deem two email communications made to a single email address as being a communication "to the public" would be to impermissibly expand the right conferred by s.31(1)(a)(iv) and (b)(iii)……Of course, a different conclusion might be reached if the email were sent to multiple recipients or posted to an electronic bulletin board."[771]

The *Digital Agenda* also made it clear that the right of 'making available to the public' could also involve an exercise of the reproduction right. The example provided was that of a person uploading a copy of a music work onto a public website on the Internet. Under the Act, that person would have enacted the right of 'making available to the public', as well as the

[768] *Copyright Reform and the Digital Agenda Report* at 4.84.
[769] *Woolworths Ltd v Olsen & Anor (2004) 63 IPR 258* per Einstein J.
[770] Ibid at 330.
[771] Ibid at 337.

reproduction right. It is possible that an action by a user may exercise one or more of the exclusive rights of the copyright owner but the communication right could be exercised without applying the right of reproduction, for example, where a person connects a file server containing pre-loaded unauthorised digital music files to the Internet. [772]

The act of 'making available' only relates to the first action that places the unauthorised digital music file on the server connected to the Internet or the act that connects to the Internet a file server that already contains the unauthorised digital music files.[773]

Section 22(6) inserted by the *Copyright (Digital Agenda) Amendment Act 2000*, states that a "communication other than a broadcast is taken to have been made by the person responsible for determining the communication." In the Internet context, it is clear that it is the person who determines the content by permitting the downloading or elects to receive a copyright work who may be liable if the transfer is unauthorised.

The limitation imposed on the communication right is that it is restricted to communications made "to the public." Not unlike the performance right, the communication right will not cover the communication of content for private and domestic purposes. For example, listening to a friend's CD at their home in private would not amount to an infringement of the communication right. If on the other hand the playing of the CD is made to a group (i.e. a party) and the homeowner charges an entrance fee, then this could amount to an infringement of copyright.[774] The term 'public' has been defined by the courts in relation to the nature of the audience. The phrase 'to the public' also requires some clarification. Section 10(1) of the Copyright Act defines 'to the public' as 'to the public within or outside Australia'. Greater guidance can be drawn from the High Court, which took the opportunity to comment on the phrase in *Telstra Corp Ltd v Australasian Performing Right Association Ltd*.[775] Dawson and Gaudron JJ stated that it is the copyright owners' public that is the relevant public and noted that:

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[772] Ibid.
[773] Wiehe, K., *"Dollars, Downloads and Digital Distribution: Is Making Available a Copyrighted Work a Violation of the Author's Distribution Right"*, 15 UCLA Ent. L. Rev. 117, 2008, pp.118-119.
[774] *Copyright Reform and the Digital Agenda Report,* op.cit.
[775] *Telstra Corp Ltd v Australasian Performing Right Association Ltd* (1997) 191 CLR 140.

"A Performance or broadcast to the world at large is obviously a performance or broadcast to the public. But the situation becomes a little more difficult in the case of a performance or broadcast to a limited class of persons….The transmission may be to individuals in private circumstances but nevertheless be to the public. Moreover, the fact that at any one time the number of persons to whom the transmission is made may be small does not mean that the transmission is not to the public. Nor does it matter that those persons in a position to receive the transmission form only part of the public, though it is no doubt necessary that the facility be available to those members of the public who choose to avail themselves of it."[776]

Their Honours also recognised that the phrase 'to the public' carries with it a connotation that the transmission is of a commercial context and one which is of public rather than private life, in that the copyright owner would be entitled to expect payment for his or her work.[777] A broadcast is more likely to have been to the public when it occurred "as an adjunct to a commercial activity" such that it inflicted economic harm on the copyright owner.[778] Whether a broadcast was to the public is also contingent on whether that broadcast was to the "copyright owner's public", being "the group which the copyright owner would otherwise contemplate as its public for the performance of its work"[779]

Although this discussion was limited to its meaning in the context of the term 'broadcast' as defined in the Act, prior to the amendments by the *Copyright (Digital Agenda) Amendment Act 2000*, the High Court's reasoning regarding 'to the public' would be equally applicable to the right to communicate to the public. This is because the right to communicate to the public

[776] *Ibid* at 155-156.
[777] Ibid at 157.
[778] See *Australian Performing Rights Association Ltd v Commonwealth Bank* (1992) 111 ALR 671 at 686. In that case, eleven employees viewed a fourteen minute training video which included background music. The music could be heard plainly for a total of about 25 seconds. The television screen was not in a public area of the bank and was not visible to any customers. Justice Gummow held that a public performance had occurred:
"The occasion of the performance was the imparting of information by the employer to its employees and the musical work was used to facilitate that process. The audience was brought together by the commercial purposes of the respondent [the Bank] and their public lives as employees."
[779] See *Jennings v Stephens* [1936] Ch 469; and *Ernest Turner Electrical Instruments Ltd v Performing Right Society Ltd* [1943] Ch 167.

has subsumed the former broadcasting right and also because the phrase retains the same connotation of qualifying an exclusive right.[780]

A domestic circle or private gathering does not constitute "the public". The nature of the Internet itself is to disseminate information to the public. Therefore, in light of the statutory definition of 'communicate' in the Copyright Act[781] as previously referred to above and in the context of the Internet, a user who uploads a digital music file to a publically accessible website with the view of sharing that file would infringe the copyright owner's exclusive right to communicate the sound recordings to the public.

However, as previously noted in section 6.2.1.2 of this thesis, the *Copyright Amendment Act 2006* (Cth) introduced a new exception to copyright infringement by allowing the making of copies of sound recordings for private and domestic purposes and for playback on devices in a different format within certain prescribed limitations. Fair dealing and the limited exceptions to copyright infringement provisions shall be discussed later in section 6.6.

The manufacturer's of P2P software could not be held liable for the direct infringement of the exclusive right "to communicate the music sound recording to the public" as the manufacturer's of P2P software are not directly responsible for determining the content of the communication.[782] In addition, s.22(6) of the Act provides that 'a communication other than a broadcast is taken to have been made by the person responsible for determining the content of the communication.' The users of the P2P software are usually the ones that determine the content of the communication.[783] A new s.22(6A) of the Copyright Act as inserted by the *Copyright Amendment Act 2006* (Cth) states that 'a person is not responsible for determining the content of a communication merely because the person gained access to or received the communication made available by someone else providing the communication.'

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[780] Lau, T., op.cit.
[781] s.10(1) of the *Copyright Act 1968* (Cth) defines *"Communicate"* to mean *"make available online or electronically transmit (whether over a path, or a combination of paths, provided by a material substance or otherwise) a work or other subject-matter, including a performance or live performance within the meaning of this Act."*
[782] Lau, T., op.cit.
[783] Ibid.

The new provision will protect a user from clicking on a link or opening an attachment containing an unauthorised digital music file, where the user is unaware that it contains content which is infringing. Where the provision will not protect the user is when that user is aware the digital music file is infringing and then forwards it on to someone else.

However, users of P2P software, in effect, offer each other downloads of digital music files which are almost always the subject of copyright and which are mostly made available for downloading without the consent of copyright owners.[784]

There is thus no doubt that the conduct of P2P users fall strictly within the scope of the definition of 'communication' since the uploading of digital music files to be made available by the software allows other remote users to search, locate and initiate downloads of the files made available by each host user.[785] In other words, once the file swapping software is installed, uploading music files so that they can readily be downloaded by other remote users must indeed constitute 'making available online'.[786] This practice of the user would in all likelihood lead to a finding that the 'right to communicate to the public' had been infringed.

In the *Universal Music Australia Pty Ltd & Ors v. Cooper & Ors*[787], the Federal Court held that the simple existence of the hypertext links on Cooper's website was not itself a communication to the public, as it did not satisfy the statutory definition of 'communicate'.[788] As the sound recordings were not stored on Cooper's website, the files did not pass through Cooper's website when downloaded by a user, and so Cooper did not 'make available' the infringing files.[789] Neither did Cooper take part in the 'electronic transmission' of those files. The sound recordings were transmitted between the remote website operators and the users that downloaded the sound recordings. However, Cooper was found liable for authorising the communication of sound recordings to the public by users of the website because he had sufficient control of his own

[784] Ibid.
[785] Horsfield-Bradbury, J., *"Making Available as Distribution: File-Sharing and the Copyright Act"*, 22 Harv. J. L. & Tech. 273, 2008-2009, p.279.
[786] Van Caenegem, W., op.cit.
[787] *Universal Music Australia Pty Ltd & Ors v. Cooper & Ors* [2005] FCA 972.
[788] Ibid at paragraphs [57]-[68].
[789] Ibid.

website to take steps to prevent the infringement and had sufficient control regarding both the user accessing his website and the remote operator placing hyperlinks on the website.[790]

Similarly, in the *Universal Music Australia Pty Ltd & Ors v. Sharman License Holdings Pty Ltd & Ors*[791] case, Wilcox J did not find the operators of the KaZaA P2P file sharing system liable for direct infringements of copyright but found the operators liable for authorising the reproduction of sound recordings in Australia by users of the KaZaA system and for authorising the communication of sound recordings to the public by Australian KaZaA users who placed music files in the My Shared Folder that were accessible by other KaZaA users.[792]

In conclusion, both in the *Cooper* and *Sharman* cases the operators were not liable for direct infringements of the exclusive right to communicate the sound recordings to the public. However, the operators were held to authorise the communication of sound recordings to the public. Therefore, the authorisation by operators of P2P networks may still amount to a direct infringement of the exclusive right of owners of copyright works to communicate that work to the public.[793]

6.2.3 Does the act of supplying file swapping software authorise Copyright Infringements?

The act of supplying P2P software can be found to have indirectly infringed the copyright owners' exclusive rights if there was an authorisation of the 'doing in Australia, any act comprised in the copyright.'[794]

For a finding of direct infringement by authorisation, two requisite elements must be satisfied:

(1) A direct infringement by the users of the P2P software; and

(2) an authorisation of that direct infringement from the supplier or developer of the P2P software.[795]

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[790] Ibid at paragraphs [84]-[88].
[791] *Universal Music Australia Pty Ltd & Ors v. Sharman License Holdings & Ors* [2005] FCA 1242.
[792] Ibid per Wilcox J Formal Order 2, pp.3-4.
[793] s.36 of the *Copyright Act 1968* (Cth).
[794] Van Caenegem, W., op.cit.
[795] Ibid.

Of the exclusive rights afforded to copyright owners, P2P users would infringe the right to reproduce a musical sound recording in a material form and the similar right to make a copy of a sound recording as well as the right to communicate to the public.[796]

In *WEA International Inc v. Hanimex Corp Ltd*[797], Gummow J clarified that the causes of action for direct copyright infringement and authorisation of copyright infringement can be separate and distinct.[798]

Authorisation is more complex as P2P software developers will only be liable if it can be shown that the suppliers of the file swapping software authorised its users to infringe the exclusive rights belonging to copyright owners. The term authorise in the context of copyright law has been given its ordinary dictionary meaning of 'sanction, approve, countenance' by several High Court decisions.[799]

Jacobs J, in *University of NSW v Moorhouse*[800] stated that the word,

> *"is not limited to the authorising of an agent by a principal….authorisation is wider than authority".*[801]

Justice Gibbs stated,

> *"A person cannot be said to authorise an infringement of copyright unless he has some power to prevent it. Express or formal permission or sanction, or active conduct indicating approval, is not essential to constitute an authorisation. However, the word 'authorise' connotes a mental element and it could not be inferred that a person had, by mere inactivity, authorised something to be done if he neither knew nor had reason to suspect that the act might be done."*[802]

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[796] Jackson, M., and Shelly, M., op.cit., p.34.
[797] *WEA International Inc v. Hanimex Corp Ltd* (1987) 17 FCR 274, per Gummow J at paragraphs [45] and [46].
[798] See also *Australasian Performing Rights Association Ltd v Jain* (1990) 26 FCR 53 at paragraph [18] per the Court.
[799] *University of NSW v. Moorehouse and Angus & Robertson (Publishers) Pty Ltd* (1975) 133 CLR 1.
[800] Ibid.
[801] Ibid at p.21.
[802] Ibid at 12 per Gibbs J.

Jacobs J proceeded to address the relevance of knowledge and the degree of authorisation required:

> *"[The term authorisation has] a much wider meaning which in cases of permission or invitation is apt to apply both where an express permission or invitation is extended to do the act comprised in the copyright and where such a permission may be implied. Where a general permission or invitation may be implied it is clearly unnecessary that the authorising party have knowledge that a particular act comprised in the copyright will be done… '[T]he court may infer authorisation or permission from acts which fall short of being direct and positive;…indifference, exhibited by acts of commission or omission, may reach a degree from which authorisation or permission may be inferred.'……knowledge could become important if the invitation were qualified in such a way as to make it clear that the invitation did not extend to the doing of acts comprised in the copyright and if nevertheless it were known that the qualification to the invitation was being ignored and yet the…..[defendant] allowed that state of things to continue."*[803]

Jacobs J makes it explicitly clear that knowledge of infringing acts can be a relevant indicator of authorisation but is not, in itself, conclusive in determining the issue of authorisation.[804]

Authorisation was afforded judicial consideration in *CBS Songs Ltd v Amstrad Consumer Electronics plc.*[805] The core issue to be determined was the question of authorisation liability for manufacturers of audio equipment with cassette dubbing facilities. In this case CBS sued Amstrad, the manufacturer of twin tape-deck stereos, claiming that the manufacture and sale of this home recording equipment was authorising blatant copyright infringements by consumers. The House of Lords rejected CBS' claim in finding that because the equipment could be put equally to legitimate and illegitimate uses, and Amstrad had no control over the actual use of the equipment by consumers, Amstrad was not authorising the illegitimate activities of consumers.[806]

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[803] Ibid at pp.21-22.
[804] Ibid.
[805] *CBS Songs Ltd v. Amstrad Consumer Electronics plc* [1987] 3 All ER 751; (1988) 11 IPR 1.
[806] See also *A & M Records v Audio Magnetics Inc* [1979] FSR 1, where a supplier of blank audio cassettes was held not to be authorising copyright infringement by consumers since the manufacturer lacked sufficient control over the use of its tapes.

In *Australasian Performing Right Association Ltd v Metro on George Pty Ltd.*[807] The Australasian Performing Right Association ("APRA")[808] applied for an order that the respondent had infringed the copyright in a number of APRA controlled musical and literary works. The respondent was the registered proprietor of a prominent live music venue in Sydney. APRA sought orders restraining Metro on the basis that it had "authorised" the public performances of the APRA-controlled works. Metro denied the allegations on the basis that they were unaware that the performance of the works infringed copyright. In her reasons for finding for the applicant, Bennett J held that the 'approve, sanction or countenance' test remains relevant.[809] Adopting this methodology, Bennett J reaffirms that the correct test to apply in such a case is that established by Knox CJ in *Adelaide Corporation v. Australasian Performing Right Association Limited*[810], and subsequently recast by Gibbs J in *Moorhouse*.[811] Her Honour appears to identify again how, despite recent legislative amendments seeking to codify *Moorhouse*, a pragmatic approach toward authorisation liability is also necessary. Her decision turned very much on issues of "control" and "knowledge" at the relevant time. By deduction, Bennett J concluded that "the likelihood of the occurrence of the infringing act is relevant, as is evidence of the degree of indifference displayed."[812]

Similarly in the US under the Sony test in *Sony Corporation of America v Universal City Studios, Inc.*, a manufacturer or distributor of a device will not be liable for contributory infringement if the device is capable of substantial non-infringing use. Where the manufacturer or distributor of the device is aware or has actual knowledge of particular acts of copyright infringement and neglects to act on that knowledge then they will be liable for contributory infringement.[813]

However, in the US Supreme Court decision in *Grokster*[814], the Supreme Court held that where a person distributes a device and takes affirmative steps or shows a clear expression to promote its

[807] [2004] FCA 1123.
[808] See Glossary of Terms at p.13 of this thesis.
[809] Ibid at paragraph [16].
[810] (1928) 40 CLR 481.
[811] *University of NSW v. Moorehouse and Angus & Robertson (Publishers) Pty Ltd* (1975) 133 CLR 1 at p.12.
[812] *Australasian Performing Right Association Ltd v Metro on George Pty Ltd* [2004] FCA 1123 at paragraph [20].
[813] *Sony Corp v Universal City Studios Inc* (1984) 464 US 417.
[814] *MGM v Grokster* 125 S.Ct. 2764 (2005).

use for copyright infringement then that person is liable for the consequent acts of infringement by third parties.

On the basis of the Sony test, Grokster and StreamCast were found liable for encouraging copyright infringement. The court held that the companies distributed their P2P software for free with the intention that third parties use it to download unauthorised copyright works, and by their conduct also promoted the infringement. The Court held that the Sony safe harbour defence will not be available to manufacturers and distributors where evidence demonstrates that statements or actions were directed to promote infringement.

In Australia, the *Digital Agenda Act* attempted to remove any uncertainty as to the scope of authorisation in the internet age by inserting several provisions into the *Copyright Act*. A presumption is created by ss.39B and 112E of the Act, which stipulates that in cases of original works and in subject matter other than works (including sound recordings) the person who merely provides the facilities for the making, or facilitating the making of communications is not deemed to have authorised any infringement of copyright. P2P networks and ISPs would qualify as such entities and would not be presumed to have authorised any direct infringement made by its users just because they provide the network by which users can infringe copyright.[815]

However in both the *Sharman* and *Cooper* cases it was held that although both operators (software and ISP retrospectively) may have provided facilities for the purposes of s.112E, the provision did not confer 'general immunity to a finding of authorisation' and that it did not preclude that a 'person who falls within the section may be held for other reasons to be an authoriser'.[816] Based on Sharman and Cooper's activities they were deemed to be more than a mere messenger because the operators had encouraged users to infringe copyright.

Sections 36(1A) and 101(1A) of the Act provides criteria to consider when determining whether P2P networks authorise copyright infringement by providing the means to share digital music files with other users. The criterion to be considered is:

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[815] Lee, C., *"A & M Records (and others) v. Napster. Time for Napster to Face the Legal Music?",* Newcastle Law Review, Vol. 4, No. 2, 2000, p.151.

[816] *Universal Music Australia Pty Ltd & Ors v. Sharman License Holdings Pty Ltd & Ors* [2005] FCA 1242 at paragraph [399] and *Universal Music Australia Pty Ltd & Ors v. Cooper & Ors* [2005} FCA 972 at paragraphs [97-99], [126] and [131].

1. The extent (if any) of the person's power to prevent the doing of an act;

2. The nature of any relationship between the person and the infringer; and

3. Whether the person took any reasonable steps to prevent or avoid the infringement, including compliance with any relevant industry codes of practice.

In the *Cooper* case, Cooper was the registered owner of the domain name/website mp3s4free.net. The purpose of the website was to enable users to download MP3 music by way of hyperlinks on the website to remote websites on which musical files were stored. The musical files were not sent to or downloaded on the Cooper website but were sent directly to users. Notably, the internet service providers (ISPs) hosting the website were also included as respondents in the proceedings.

Although the recording industry did not succeed in every argument, the Court did find that both Cooper and the ISPs infringed the recording companies' copyright in various sound recordings through the operation of the site. In particular, liability was found on the basis that both Mr. Cooper and the ISPs "authorised" infringement of copyright pursuant to s.101(1A) of the Copyright Act.[817]

In the *Sharman* case, the KaZaA system was available to users free of charge and enabled users to share material stored in a particular file known as "My Shared Folder." Any user who was interested in obtaining a copy of an infringing music file could, by using the KaZaA software, search for that material stored in "My Shared Folder" of other users worldwide. Once found, that particular infringing file was transmitted to the user's own computer.[818]

The Federal Court in its decision held the operators of the KaZaA software liable for authorising copyright infringement because the software permitted users to search for and download unauthorised copies of digital music files from other users of the network.[819]

[817] *Universal Music Australia Pty Ltd & Ors v. Cooper & Ors* [2005} FCA 972 at paragraphs [86-88].
[818] *Universal Music Australia Pty Ltd & Ors v. Sharman License Holdings Pty Ltd & Ors* [2005]. FCA 1242 at paragraph [420].
[819] Ibid at paragraphs [489]-[490].

The Federal Court held six of the ten respondents liable for authorising two types of acts of infringement by Australian KaZaA users and entering into common design with each other to do so.[820] These acts were:

- the unauthorised reproduction of sound recordings in Australia; and
- the unauthorised communication of sound recordings to the public[821]

The Federal Court also considered the effect of s.101(1A) of the *Copyright Act 1968* (Cth) on its application of authorisation principles to the internet activity.[822] That section requires a court to consider the following factors when determining whether a person authorised a primary act of infringement:

(a) the extent (if any) of the person's power to prevent the doing of the act concerned;

(b) the nature of the any relationship existing between the person and the person who did the act concerned; and

(c) whether the person took any other reasonable steps to prevent or avoid the doing of the act, including whether the person complied with any relevant industry codes of practice.[823]

In considering these factors, Wilcox J confirmed that the High Court's test for authorisation liability established in *University of New South Wales v. Moorhouse*,[824] namely that authorisation involves an inquiry as to whether a person had 'sanctioned, approved or countenanced' the

[820] Giblin, R., and Davison, M., *"KaZaA Goes the way of Grokster? Authorisation of Copyright Infringement Via Peer To-Peer Networks in Australia"*, Australian Intellectual Property Journal, Vol. 17, No. 1, 2006; See also Lee, J., *"The Ongoing Design Duty in Universal Music Australia Pty Ltd v. Sharman License Holdings Ltd – Casting the Scope of Copyright Infringement Even Wider"*, International Journal of Law and Information Technology, Vol. 15, Issue 3, 2007, p.287.
[821] *Universal Music Australia Pty Ltd & Ors v. Sharman License Holdings Pty Ltd & Ors* [2005]. FCA 1242 at paragraphs [400]-[488].
[822] Pessach, G., *"An International-Comparative Perspective on Peer-To-Peer File-Sharing and Third Party Liability in Copyright Law: Framing the Past, Present, and Next Generations' Questions"*, 40 Vand. J. Transnat'l L. 87, 2007, p.92.
[823] [823] *Universal Music Australia Pty Ltd & Ors v. Sharman License Holdings Pty Ltd & Ors* [2005]. FCA 1242 at paragraph [405].
[824] *University of NSW v. Moorehouse and Angus & Robertson (Publishers) Pty Ltd* (1975) 133 CLR 1 at 12.

primary infringing conduct, remained the applicable test even after the introduction of s.101(1A) of the *Copyright Act 1968* (Cth).

Wilcox J made a number of factual findings that supported six of the respondents being found liable for authorising infringement of copyright by KaZaA users. [825] These were that:

(1) The respondents were aware that the predominant use of the KaZaA system was the sharing of copyright infringing material;
(2) The respondents had the present ability to curtail, even if they could not entirely prevent, the sharing of copyright files on the KaZaA service;
(3) None of the respondents had any interest in preventing or curtailing the predominant use of the system. The respondent's financial interests were dependent on maintaining the level of traffic through the service for advertising revenue;
(4) The respondents engaged in positive acts that would have had the effect of encouraging copyright infringement;
(5) The warnings and disclaimers appearing on the KaZaA website and End User Licence Agreement were inadequate and did not 'amount to reasonable steps to prevent or avoid the infringements'; and
(6) The Respondent had made active statements to their users to increase their file sharing activities.[826]

Sharman's ability to control the availability of music files for copying by subscribers was critical in determining liability. While the Court found that Sharman had authorised copyright infringement, it weighed up the legitimate purposes of the KaZaA software and required it to be modified to ensure that infringing conduct ceased.[827]

The recording companies were successful in claiming that the owners of the KaZaA software had authorised others, namely KaZaA users, to engage in copyright infringement of sound recordings pursuant to s.101(1A) of the Copyright Act.[828]

[825] *Universal Music Australia Pty Ltd & Ors v. Sharman License Holdings Pty Ltd & Ors* [2005]. FCA 1242 at paragraph [517].
[826] Ibid at paragraphs [404]-[411].
[827] Ibid at paragraph [520].
[828] Ibid.

6.2.4 Infringement by sale and other commercial dealings

Certain commercial dealings with infringing articles (such as importing bootleg CDs or DVDs) constitute infringements of copyright.[829] Unlike the various activities covered under the category of direct infringement, there is a knowledge requirement on the part of the defendant.[830]

In relation to importation, the law has evolved significantly over the last few years. The act of importing infringing articles (i.e. pirated goods) into Australia for trade purposes amounts to a copyright infringement. It is also an infringement of copyright to deal with infringing articles by way of trade or commerce such as to sell, hire, trade, or display in public these items. . Articles that may be deemed to be infringing can be items such as music CDs that are produced without the licence or permission from the copyright owner or the exclusive licensee. Importations of some legitimate copyright goods into Australia for trade purposes are restricted. However, the commercial importation of legitimate sound recordings (i.e. CDs, tapes and records) do not have these restrictions and will not be an infringement of copyright unless a copy was made without the consent of the owner or exclusive licensee (i.e. a pirate or counterfeit copy). Sound recordings and musical works have separate copyright and therefore the commercial importation of an illegitimate copy of a sound recording would infringe the owner's copyright in a sound recording but also the author's and composer's copyright in the other works attaching to the music contained in the sound recording (i.e. music and literary works).

One of the claims made in the *Cooper* case by Universal Music (the "applicants") was that of a secondary infringement pursuant to s.103 of the Act. This was put on the basis that the MP3 files made available via Cooper's mp3s4free website were "articles" within the meaning of s.103 of the Act.[831]

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[829] ss.37, 38 and ss.102,103 of the *Copyright Act 1968* (Cth).
[830] Ricketson, S., and Richardson, M., op.cit., pp.398-399.
[831] *Universal Music Australia Pty Ltd & Ors v. Cooper & Ors* [2005} FCA 972 at paragraphs [89-96]; See also s.103 of the *Copyright Act 1968* (Cth) which provides that:

> *"(1) ….. if copyright subsisting by virtue of this Part is infringed by a person who, in Australia, and without the licence of the owner of the copyright:*
> *(a) sells, lets for hire, or by way of trade offers or exposes for sale or hire, an article; or*
> *(b) by way of trade exhibits an article in public;*
> *if the person knew, or ought reasonably to have known, that the making of the article constituted an infringement of the copyright or, in the case of an imported article, would, if the article had been made in Australia by the importer, have constituted an infringement of the copyright.*

At the time of the decision there was no relevant definition of "article" in the Act or any authority where the meaning of the term had been considered. However, amendments to the Act now provide a new definition of 'article' pursuant to s.103(3).[832] The applicants submitted that MP3 files were "articles" in order to satisfy s.103 of the Act and that the word "article" should be given its plain and ordinary meaning. The applicants submitted that MP3s were commodities that can be, and are, bought, sold and traded.[833]

The applicants claimed that MP3s are discrete things or items which Mr. Cooper was in the business of supplying to internet users who visited the mp3s4free website. Even though there were no Australian authorities on point to support the applicant's proposition, the applicants argued that MP3 digital music files were "articles" for the purposes of s.103 of the Act.[834]

It was further argued by the applicants that the secondary infringement provisions of the Act, including s.103, are intended to capture dealings of a commercial character in infringing material.[835] The distribution of digital music files such as MP3s across the internet represents the modern equivalent of dealings in physical records such as cassette tapes, LPs and CDs. The applicants submitted that the provisions of the Act should be given a beneficial interpretation with consideration to its application to new technologies referring to the cases of *Sega Enterprises Limited v Galaxy Electronics Pty Limited*[836] and on appeal *Galaxy Electronics Pty Limited v Sega Enterprises Limited*[837].

The applicants argued that the MP3 files were "exhibited" by Mr Cooper by means of the links on his website which, when activated, caused the download of the files to the user's hard drive. The applicants analogised their argument with the display of a music CD in a music store

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> *(2) For the purposes of the last preceding subsection, the distribution of any articles:*
> *(a) for the purpose of trade; or*
> *(b) for any other purpose to an extent that affects prejudicially the owner of the copyright concerned;*
> *shall be taken to be the sale of those articles."*

[832] See s.103(3) of the *Copyright Act 1968* (Cth) provides that an *"'**Article**' includes a reproduction or copy of a work or other subject-matter, being a reproduction or copy in electronic form."*
[833] Ibid at paragraph [92].
[834] Ibid at paragraphs [93-94].
[835] Ibid at paragraph [93].
[836] *Sega Enterprises Limited v Galaxy Electronics Pty Limited* (1996) 65 FCR 268 at 273-275.
[837] *Galaxy Electronics Pty Limited v Sega Enterprises Limited* (1997) 75 FCR 8 at 17-20.

window, whereby a CD actually bought by a consumer is likely to be an equivalent copy and not the same physical CD actually on display.[838]

In the *Cooper* case, Tamberlin J found that Cooper benefited financially from sponsorship and advertisements on the website. The Court was also satisfied that the operation of the website occurred within a trading or commercial context and as part of trade and commerce.[839] However, Tamberlin J held that Cooper cannot be said to have been engaged in trading in relation to the digital music files themselves.

> *"The commercial benefit to Cooper was a collateral one, arising from the sponsorship and funding he received as a result of the exposure of the advertising material on his website. I consider was not exposing or offering the infringing MP3 copies of sound recordings for sale to internet users or the owners of the remote website."*[840]

Tamberlin J held that it therefore followed that Cooper did not infringe copyright by selling, or exposing for sale or otherwise dealing in infringing copies because there was no sale or trade between Cooper and the user or the owners or operators of the remote websites.[841]

Tamberlin J, stated,

> *"There was some debate regarding whether the packet of electronic data which is activated by clicking on the hyperlink on the website to produce a download of the sound recording from the remote website can be described as an 'article'. In plain and ordinary English usage, it could not clearly be so considered."*[842]

Similarly, in the *Sharman* case, Universal (the applicants) again submitted the same arguments to the court relating to s.103 as they did in the *Cooper* case. The applicants argued secondary infringement on the ground that the digital files made available by the KaZaA software were "articles" within the meaning of s.103.

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[838] *Universal Music Australia Pty Ltd & Ors v. Cooper & Ors* [2005] FCA 972 at paragraph [89].
[839] Ibid at paragraph [90].
[840] Ibid.
[841] Ibid at paragraph [91].
[842] Ibid at paragraph [92].

The applicants then directed the court as to the need to interpret the new technologies. The applicants argued that "article" for the purposes of s.103 of the Act is an MP3 file on a user's hard drive which is exhibited when the user places the file in their 'My Shared Folder' whilst connected to the KaZaA system. This was contended by the applicants again being analogous to the display of a music CD in a music store window, whereby the CD actually bought by a consumer is likely to be an equivalent copy and not the same physical CD actually on display. [843]

Wilcox J in his findings in *Sharman's* case ignored this issue and concentrated on the authorisation issue before him. Wilcox J stated,

> *"I return to the true issue in the case: the applicants' copyright claim. Here again, the applicants overstated their case. It cannot be concluded, as the applicants claimed in their pleadings, that the respondents themselves engaged in communicating the applicants' copyright works. They did not do so. The more realistic claim is that the respondents authorised users to infringe the applicants' copyright in their sound recordings."*[844]

When considering s.103 of the Act, the courts have generally dismissed this cause of action as being available to the applicants because the definition of 'article' is not appropriate to include the service or facility provided by P2P operators.

In summary, only a handful of relevant cases have been determined by Australian courts. In order for Australia to meet its obligations under the FTA, Australia implemented significant changes to the copyright law. Although new amendments have been inserted into the Copyright Act, many have not been judicially determined. The writer's legal analysis of the relevant provisions suggest that the Copyright law is adequate to protect copyright owners' works and subject matter from copyright infringement and unauthorised use by music pirates and users utilising the current technology.

The law provides that:

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[843] See Applicant's Counsels closing submissions in the *Sharman* case at paragraphs [374-378] located at http://www.apcstart.com/kazaagate/pdf/dump/aria/ARIA%20closing%20submissions.DOC (accessed on 12 January 2007).

[844] *Universal Music Australia Pty Ltd & Ors v. Sharman License Holdings Pty Ltd & Ors* [2005]. FCA 1242 as per Wilcox J in his Summary p.4.

- a sound recording is deemed to have been copied if it is converted into a digital form from an illegal copy;

- uploading unauthorised music files to a website from remote downloads constitutes reproduction and a communication to the public and would be an infringement of copyright;

- uploading unauthorised music files accessible to other P2P software users computers constitutes a reproduction and a communication to the public and would be a direct infringement of copyright;

- providing P2P software constitutes a direct infringement by authorising copyright infringement; and

- s.103 of the Copyright Act has limited impact in file swapping cases unless it can be shown that the P2P operators conduct a physical or cyber-shop for the selling of unauthorised digital music files. This is unlikely given that the P2P operator's software merely provides the service and facilities for users to download and upload digital music files.

6.3 TECHNOLOGICAL PROTECTION MEASURES

In light of high levels of infringement, copyright rules which are difficult to police on the internet and earlier lacunae in legal protection, the music industry has been investigating and developing many self-help technologies to protect copyright material in digital storage formats. Many of the music industry companies have been utilising watermarking, encryption, Secure Digital Music Initiative ("SDMI")[845] and DMR ("Digital Management Rights") technologies to prevent the making of unauthorised copies from legitimate records such as CDs, DVDs or legitimate online sound files and converting them into open digital formats. On the other hand, the technology savvy pirates are developing technologies to overcome the owner's technological protection measures that are put in place.

6.3.1 Technological Protection Measures

In 2001, The Digital Agenda Act introduced the rules relating to technological protection measures. At that time s.116A of the Act made it illegal to make, sell, hire or distribute a device which is capable of circumventing a technological protection measure.

The Digital Agenda Act defined a TPM under s.10(1) of the Act as:

> *"A device or product, or a component incorporated into a process, that is designed, in the ordinary course of its operation, to prevent or inhibit the infringement of copyright in a work or other subject-matter by either or both of the following means:*
>
> *(a) by ensuring that access to the work or other subject matter is available solely by use of an access code or process (including decryption, unscrambling or other transformation of the work or other subject-matter) with the authority of the owner or exclusive licensee of the copyright;*
>
> *(b) through a copy control mechanism."*

And a circumvention device was also defined in s.10(1) of the Copyright Act as:

[845] For definition of "SDMI" see Glossary of Terms at p.25 of this thesis.

"A device (including a computer program) having only a limited commercially significant purpose or use, or no such purpose or use, other than the circumvention, or facilitating the circumvention, of a technological protection measure."

On 1 January, 2007 new amendments for technological protection measures were introduced to the *Copyright Act 1968* (Cth) (Act) via the *Copyright Amendment Act 2006* (Cth). The purpose of the new provisions was twofold. Firstly, they were implemented in order for Australia to meet its obligations under the FTA and secondly, to establish a protected digital environment for copyright owners.[846]

The 2007 amendments mean that liability will no longer attach exclusively to manufacturers or distributors of devices or services designed to circumvent TPMs as was the position under the previous provisions in the Copyright Act. The amendments place users of such devices within the scope of liability and establish liability for mere "access" to a copyright work protected by a TPM, regardless of whether an infringement occurred.[847] A closer analysis of the 2007 amendments will be provided in sections 6.3.2 and 6.3.3.

It is important to closely examine the shift from the previous provisions under the Act to the 2007 amendments to determine their effect on the position of copyright owners.

6.3.1.1 The Effect of the previous provisions under the Act

Prior to the 2007 amendments taking effect, s.116A of the Act provided civil remedies and s.132 provided criminal penalties against the commercial dealing, manufacture and importation of devices and services designed to circumvent a technological protection measure (TPM). TPMs included items such as software locks, encryption, watermarks and password protection measures.

Section 116A of the Act[848] made it illegal "to make a device which is capable of circumventing a technological protection measure of a copyrighted work and selling, letting, hiring or distributing

[846] See Attorney Generals Fact Sheet on TPM Liability Scheme located at http://www.ag.gov.au/www/agd/rwpattach.nsf/VAP/(CFD7369FCAE9B8F32F341DBE097801FF)~Copyright+Fact+Sheet+-+Technological+Protection+Measures+liability+scheme.pdf/$file/Copyright+Fact+Sheet+-+Technological+Protection+Measures+liability+scheme.pdf (accessed on 30 June 2007).
[847] Fitzgerald, B., op.cit., pp.10-11.
[848] Section 116A states:

such a device, which included on-line distribution."[849] Although s.116A of the Act has been repealed under the 2007 amendments there was significant legal argument relating to this provision.

The first case in Australia which directly addressed the issue of s.116A of the Act was *Kabushiki Kaisha Sony Computer Entertainment v. Stevens.*[850] This case concerned the Sony PlayStation computer games console and Mod-chip devices. Sony incorporated regional access coding technology in their PlayStation game console. This regional access coding was encoded on the outer track of a Sony game CD requiring a microprocessor contained on the console's main circuit board called a "Boot ROM" to read the track on the CD for the game to play. The console would only play games purchased in the region where the console was purchased. [851]

Regional access coding prevented legitimate games purchased overseas from being played on a console device purchased in Australia because the device would not accept the code from another region. Furthermore, unauthorised copies and burnt copies of the game would also not play on the console because the device could not read the embedded coding on the CD.

"Subject to subsections (2), (3) and (4), this section applies if:
(a) a work or other subject-matter is protected by a technological protection measure; and
(b) a person does any of the following acts without the permission of the owner or exclusive licensee of the copyright in the work or other subject-matter:

- *(i) makes a circumvention device capable of circumventing, or facilitating the circumvention of, the technological protection measure;*
- *(ii) sells, lets for hire, or by way of trade offers or exposes for sale or hire or otherwise promotes, advertises or markets such a circumvention device;*
- *(iii) distributes such a circumvention device for the purpose of trade, or for any other purpose that will affect prejudicially the owner of the copyright;*
- *(iv) exhibits such a circumvention device in public by way of trade;*
- *(v) imports such a circumvention device into Australia for the purpose of:*
  - *(A) selling, letting for hire, or by way of trade offering or exposing for sale or hire or otherwise promoting, advertising or marketing, the device; or*
  - *(B) distributing the device for the purpose of trade, or for any other purpose that will affect prejudicially the owner of the copyright; or*
  - *(C) exhibiting the device in public by way of trade;*
- *(vi) makes such a circumvention device available online to an extent thatwill affect prejudicially the owner of the copyright;*
- *(vii) provides, or by way of trade promotes, advertises or markets, a circumvention service capable of circumventing, or facilitating the circumvention of, the technological protection measure; and*
- *(iv) the person knew, or ought reasonably to have known, that the device or service would be used to circumvent, or facilitate the circumvention of, the technological protection measure."*

[849] Sainsbury, M., *"The Copyright Act in the Digital Age"*, Journal of Law and Information Science, Vol. 11, No. 2, 2000/2001, p.186-187.
[850] *Kabushiki Kaisha Sony Computer Entertainment v Stevens* [2001] FCA 1379; [2002] FCA 906.
[851] Fitzgerald, B., op.cit., pp.1-2.

Consequently a device called a modification chip ("Mod-Chip") was created to convert the console to allow unauthorised games and other region coded games to be played on the PlayStation console.[852]

Sony brought legal proceedings against Stevens claiming that he had modified the Sony PlayStation console in breach of s.116A of the *Copyright Act 1968* (Cth). Sony's claim was that Stevens had sold or distributed the Mod-Chips which he knew or ought to have known would have been used as a circumvention device to overcome a TPM, in particular Sony's regional access coding.[853]

This case had significant ramifications for file sharing because many digital music players incorporate TPMs in their devices to prevent playback of infringing files or legitimate copies of music files that do not incorporate the manufacturer's proprietary DRMs. The decision of the case detailed in section 6.3.1.4 meant that it would not be an infringement for a user to circumvent a TPM on a digital music player in order to playback a copy of a digital music file because the device did not 'prevent or inhibit' copying of the music file but rather prevented the music file from playing. Many digital music players do not prevent copies being made, but stop the copy being played in the device.

The 2007 amendments would prevent a user from circumventing a TPM on a digital music player because it added the broader term "restrict" to the definition so that a device has to "prevent, inhibit or restrict" copyright infringement.

6.3.1.2 Sony v Stevens - Decision of the Federal Court at First Instance

The principal case to consider the anti-circumvention provisions in the Australian *Copyright Act 1968* (Cth) was *Sony v Stevens*. In this case at first instance, Sackville J held that the Mod-Chip was not a circumvention device because it was not created for the reason of circumventing a TPM. His Honour came to this conclusion on the grounds that Sony's Boot ROM and region coding system was not a TPM because it was not developed to prevent access to the game or as a

[852] Ibid.
[853] Ibid.

copy control mechanism to inhibit reproduction of the game, rather it was incorporated to prevent use of a game that was not coded in the region where the console was purchased.[854]

The Court also dismissed Sony's argument that the Boot ROM and region coding system had the 'practical effect' of inhibiting or preventing access from copying to satisfy the definition of a TPM because it made copied games difficult to be played. Sackville J stated:

> *"There seems to be nothing in the legislative history to support the view that a technological measure is to receive legal protection from circumvention devices if the only way in which the measure prevents or inhibits the infringement of copyright is by discouraging infringements of copyright which predate the attempt to gain access to the work or to copy it."*[855]

Nevertheless, Sackville J did concede that the Mod-Chip would be a circumvention device if Sony's Boot ROM and region coding system was a TPM.[856]

A further claim raised by Sony was that their Boot ROM and regional access system was a technological protection measure ("TPM") because it inhibited copies of computer games being reproduced in the gaming console's RAM. The Court refused to accept this argument because the reproduction in RAM was so limited and temporary in character that it would not have amounted to a reproduction "in a material form" as required by the Act.[857] Detailed discussion relating to reproduction in RAM in *Sony v. Stevens* was addressed earlier in this thesis in section 6.2.1.1.

6.3.1.3 Full Federal Court Decision

The case was then appealed by Sony to the Full Federal Court of Australia and heard on 30 July 2003. French, Lindgren and Finkelstein JJ overturned the decision in the case at first instance, and held that Stevens was liable for infringement pursuant s.116A of the Copyright Act for selling and distributing Mod-Chips.[858]

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[854] *Kabushiki Kaisha Sony Computer Entertainment v Stevens* [2002] FCA 906 at paragraphs [92] and [118].
[855] Ibid at paragraph [117].
[856] Ibid at paragraph [167].
[857] Ibid at paragraph [137].
[858] *Kabushiki Kaisha Sony Computer Entertainment v Stevens* [2003] FCAFC 157.

The Court held that Sony's Boot ROM and region coding system was a TPM because it was designed for the purpose of preventing or inhibiting copying which was the intention of s.116A of the Copyright Act even if the system could not prevent the initial copying as such.[859]

Lindgren J stated:

> *"If, as in the present case, the owner of copyright in a computer program devises a technological measure which has the purpose of inhibiting infringement of that copyright, the legislature intended that measure to be protected (subject to any express exception), even though the inhibition is indirect and operates prior to the hypothetical attempt at access and the hypothetical operation of the circumvention device. By ensuring that access to the program is not available except by use of the Boot ROM, or the access code embedded in the PlayStation games, or both in combination, Sony's measure does inhibit the infringement of copyright in the PlayStation games in that way."*[860]

French J in agreement also stated:

> *"If a device such as an access code on a CD-ROM in conjunction with a Boot ROM in the PlayStation console renders the infringing copies of computer games useless, then it would prevent infringement by rendering the sale of the copy 'impracticable or impossible by anticipatory action'."*[861]

6.3.1.4 The High Court Decision

Stevens appealed the decision of the Full Federal Court to the High Court of Australia. The High Court overturned the decision of the Full Federal Court and predominantly confirmed the decision of the case at first instance. The High Court held that Sony's Boot ROM and region coding system was not a TPM to satisfy the definition and s.116A of the Act. The Court also affirmed the Full Federal Court and the Federal Court's decision that playing a game and

[859] Ibid at paragraphs [20], [139], [189].
[860] Ibid Per Lindgren J at paragraph [139].
[861] Ibid at paragraph [20].

temporarily reproducing it in the console's RAM did not result in a substantial reproduction in a material form for the purposes of the Act.[862]

The High Court's decision addressed Sony's previous submissions that the Boot ROM and region access coding inhibited infringement by preventing copied games being played on the console. In coming to its decision the High Court focussed on the interpretation of the definition of a TPM in the Act, that being that a TPM must have the purpose of 'preventing or inhibiting' copyright infringement. In dismissing Sony's argument, the High Court determined that the Boot ROM region coding system did not prevent or inhibit copyright infringement; instead it only prevented the playing of an illegal copy of a game once made.

The High Court stated:

> *"The use of Mr Stevens' mod chip in order to circumvent the protections provided by (a) the access code on a CD-ROM in which a PlayStation game is stored and (b) the boot ROM device contained within the PlayStation console cannot be said to be for the reproduction will already have been made through the ordinary process of 'burning' the CD-ROM. The mod chip is utilised for a different purpose, namely to access the reproduced computer program and thereafter visually to apprehend the result of the functions of the program."*[863]

The High Court was also concerned that consumers who purchase legitimate games overseas should have the right to modify their Australian console (whether by use of a Mod-Chip or not) to permit the playing of these games, because to not allow the games to be played would be unlawful:

> *"…it is important to avoid an overbroad construction which would extend the copyright monopoly rather than match it…One example is playing a program lawfully acquired in the United States in Australia. It was common ground in the courts below and in*

[862] *Stevens v Kabushiki Kaisha Sony Computer Entertainment* [2005] HCA 58.
[863] Ibid at paragraph [43].

argument in the High Court that this act would not of itself have been an infringement."[864]

A further influencing factor in the High Court's approach to reject Sony's argument was the nature of the criminal penalties that apply to selling devices which circumvent TPMs

The High Court stated that in:

"choosing between a relatively broad and a relatively narrow construction of legislation, it is desirable to take into account its penal character. A person who makes or sells a circumvention device (s.132(5B)) is liable to imprisonment for not more than five years (s.132(6A)). An appreciation of the heavy hand that may be brought down by the criminal law suggests the need for caution in accepting any loose, albeit "practical", construction of the Copyright Act." [865]

The High Court rejected Sony's claim that the Court should take into account the practical effect of the Boot ROM and region coding system in that it prevents or inhibits copyright infringement by preventing the playing of an illegal copy of a game.

The High Court concluded:

"…the true construction of the definition of 'technological protection measure' must be one which catches devices which prevent infringement. The Sony device does not prevent infringement. Nor do many of the devices falling within the definition advanced by Sony. The Sony device and devices like it prevent access only after any infringement has taken place."[866]

6.3.2 The 2007 Amendments

On 1 January, 2007 amendments for technological protection measures were introduced in the Act by the *Copyright Amendment Act 2006* (Cth).

[864] Ibid at paragraph [47].
[865] Ibid at paragraph [45].
[866] Ibid at paragraph [46].

The definition of a Technological Protection Measure (TPM) was replaced and is now defined in s.10(1) to mean:

> *"(a) an access control technological protection measure; or*
>
> *(b) a device, product, technology or component (including a computer program) that:*
>
> *(i) is used in Australia or a qualifying country by, with the permission of, or on behalf of, the owner or the exclusive licensee of the copyright in a work or other subject-matter; and*
>
> *(ii) in the normal course of its operation, prevents, inhibits or restricts the doing of an act comprised in the copyright;*
>
> *but does not include such a device, product, technology or component to the extent that it:*
>
> *(ii) if the work or other subject-matter is a cinematograph film or computer program (including a computer game)—controls geographic market segmentation by preventing the playback in Australia of a non-infringing copy of the work or other subject-matter acquired outside Australia; or*
>
> *(iv) if the work is a computer program that is embodied in a machine or device—restricts the use of goods (other than the work) or services in relation to the machine or device."*[867]

The new amendments introduced a further category of copy protection devices, called Access Control Technological Protection Measures (ACTPMs).

[867] New definition inserted in s.10(1) of the *Copyright Act 1968* (Cth).

An ACTPM is also inserted into s.10(1) and is defined as:

"a device, product, technology or component (including a computer program) that:

(a) is used in Australia or a qualifying country:

(i) by, with the permission of, or on behalf of, the owner or the exclusive licensee of the copyright in a work or other subject-matter; and

(ii) in connection with the exercise of the copyright; and

(b) in the normal course of its operation, controls access to the work or other subject-matter;

but does not include such a device, product, technology or component to the extent that it:

(c) if the work or other subject-matter is a cinematograph film or computer program (including a computer game)—controls geographic market segmentation by preventing the playback in Australia of a non-infringing copy of the work or other subject-matter acquired outside Australia; or

(d) if the work is a computer program that is embodied in a machine or device—restricts the use of goods (other than the work) or services in relation to the machine or device."[868]

6.3.2.1 Circumventing an Access Control Technological Protection Measure

Section 116A of the Copyright Act was repealed and s.116AN inserted. Section 16AN(1) provides that an owner or exclusive licensee of copyright in a work or other subject matter that is protected by an ACTPM may bring an action against a person who does an act to circumvent an ACTPM and knowingly, or having reasonable grounds to know, the act would have that result.

[868] Ibid.

By way of comparison, the previous s.116A of the Act placed no restrictions on circumventing an access control TPM.

6.3.2.2 Exceptions to Liability

The 2007 amendments also inserted ss.116AN(2)-116AN(9) and these provisions create exceptions to liability for circumventing an ACTPM.

(a) ss.116AN(2) creates an exception to liability where the person has the permission (either express or implied) of the copyright owner or exclusive licensee to circumvent the ACTPM

(b) ss.116AN(3) creates an exception to liability for copyright infringement to creating interoperable computer programs where that information is not readily available from another source at the time of circumvention.

(c) ss.116AN(4) creates an exception to liability to undertaking encryption research. It does not apply to a situation where the copyright owner has refused permission.

(d) ss.116AN(5) creates an exception to liability for the sole purpose of testing, investigating or correcting the security of a computer, computer system or computer network.

(e) ss.116AN(6) creates an exception to liability to providing online privacy.

(f) ss.116AN(7) creates an exception to liability where circumvention relates to anything lawfully done for the purposes of law enforcement, national security, or performing a statutory function, power or duty of Commonwealth, state or territory governments and agencies.

6.3.2.3 Manufacturing a Circumvention Device for a TPM

A new section 116AO(1) of the Act provides that an owner or exclusive licensee of copyright in a work or other subject matter that is protected by a TPM may bring an action against a person who manufactures, imports, distributes or offers to the public or otherwise provides to another person, TPM circumvention devices.

6.3.2.4 Exceptions to Manufacturing and Dissimilation of a TPM

Subsections 116AO(2)-116AO(6) of the Act create TPM manufacturing exceptions to liability, whilst subsections 116AP(2)-(6) of the Act create exceptions with respect to providing a circumvention service of a TPM. These exceptions are analogous to the exceptions to liability referred to above, in section 116AN of the Act.

6.3.2.5 Remedies

Section 116AQ of the Act introduces civil remedies where a person circumvents an ACTPM, or manufactures or deals in TPM circumvention devices.

Defences to liability for criminal actions are set out in ss.132APC(2)-132APC(8), 132APD(2)-132APD(7) and 132APE(2)-132APE(7) of the Act. Exempted from criminal actions are non-profit libraries, archives, educational institutions and public non-commercial broadcasters. There is, however, no equivalent exemption from civil liability for these institutions, apart from the exception that allows libraries, archives and educational institutions to circumvent ACTPMs when making acquisition decisions.

6.3.3 Effect of the ACTPM provisions on TPMs and the Decision in Sony v. Stevens

In 2005, the Australian High Court ruled in *Sony v. Stevens* that the Boot ROM in Sony PlayStations and the region coding in their games did not constitute a TPM. Under the previous definition in the Act, a TPM had to "prevent or inhibit" copyright. The Court held that Sony's Boot ROM and region coding system did not prevent or inhibit copyright infringement; instead it only prevented the playing of an illegal copy of a game that had already been copied.[869]

The High Court ruling in *Sony v Stevens* may no longer be applicable given recent amendments to the Act as discussed above. The new amendments altered the TPM definition in the Act by including the word "restrict" to the previous definition of a device designed to "prevent or inhibit" copyright infringement. The new definition of TPM now reads 'prevent, inhibit or restrict'.[870] Adding the extra term 'restrict' broadens the meaning of a TPM definition and in

[869] Suzor, N., "*Will mod-chips be legal in Australia?*", nic.suzor.com, 15 December 2006, located at http://nic.suzor.com/20061215-NS-modchips (accessed on 23 December 2006).
[870] New definition in s.10(1) of the *Copyright Act 1968* (Cth).

effect statutorily attempts to by-pass the *Sony v Stevens'* decision by the High Court. The end result of this amendment may mean Sony's Boot ROM and region coding system may well qualify as a TPM, therefore making the production, selling and distribution of Mod-Chips unlawful.[871]

Under the 2007 amendments it will be illegal to manufacture, supply and circumvent an ACTPM device or service. Under the previous provisions of the Act relating to TPMs there were no restrictions on a person obtaining a circumvention device and using it. However, the 2007 provisions mean that if the device qualifies as an ACTPM then circumvention of this device may result in civil and/or criminal penalties.[872]

The amendments insert an exception into the Act to ensure that devices created to circumvent a region coding device will not fall into the category of either an ACTPM or a TPM. Consequently, a device which only has the function of preventing a legitimate film, game or a computer program purchased overseas from being played in Australia would not be afforded protection under the Act.[873]

The position is not as clear cut where a device has a dual purpose, where it has been designed to prevent use in Australia (region coded access) and either controls access to a copyright work (an ACTPM) or prevents, inhibits or restricts (a TPM) copyright infringement.

In view of the 2007 amendments it will be interesting to observe how the courts will interpret the new provisions and how far manufacturers of devices will go to entwine region coding systems with TPMs and ACTPMs. There have been no cases to date that have addressed these provisions in detail.

Manufacturers that develop devices that have a dual purpose to control access will fall into the category of either an ACTPM or TPM. If a user can circumvent the region coding of that device only, then that circumvention will be permitted. Where issues arise will be when a user circumvents the region coding of the device, but in order to do so, also circumvents a TPM and

[871] Suzor, N., op.cit.
[872] s.10(1) Definitions of ACTPM and TPM in the *Copyright Act 1968* (Cth).
[873] Ibid.

to what extent the act of circumventing that TPM was required or necessary. The new amendments are unclear as to whether the act of circumvention in this case would be illegal.[874]

The new amendments do not make it clear as to whether region coding can be isolated from legitimate TPMs or ACTPMs. Expert code breakers may technically be able to separate and circumvent the region coding portion of a dual purpose device, but it may also be extremely difficult to access because region coding normally sits behind other copy protection access controls. Invariably, circumvention of other access control measures may occur first before a person can access and bypass the region coding on the device.[875] In this case, the act of circumvention may be a strict infringement of the Act regardless of the person's intention.

The Australian amendments have adopted a provision relating to TPM's which in principle, are similar to the US definition[876] by making actual circumvention of an access control unlawful and adding a new definition for ACTPM and amending the definition of TPM from one that 'prevents or inhibits' copyright infringement to 'prevents, inhibits or restricts'.[877]

The US Digital Millennium Copyright Act 1998 (DMCA) protects two classes of TPM. The first class includes measures which effectively control access to copyright material. The DMCA prohibits the use, manufacture, sale and other commercial dealings in products and services which are designed to circumvent a technological measure, or which have a limited commercially significant alternative use. The act of circumventing such measures is also prohibited.[878] The definition of technological measure for these purposes is:

> *"…a technological measure 'effectively controls access to a work' if the measure, in the ordinary course of its operation, requires the application of information, or a process or a treatment, with the authority of the copyright owner, to gain access to the work."*[879]

The second class of protected measure are those which effectively protect a copyright owner's rights under the DMCA. The use, manufacture, sale and other commercial dealings in devices or

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[874] Ibid.
[875] Ibid.
[876] Gethin, S., *"Technological protection measures in the Australia-US FTA"*, Intellectual Property Law Bulletin, Vol. 17, No. 3, 2004, p.14.
[877] Ibid, p.42.
[878] Ibid, p.41.
[879] 17 USC § 1201(a)(3)(B).

services primarily designed to circumvent this class of measures is also prohibited.[880] For these purposes, the definition of a technological measure is:

> *"...a technological measure 'effectively protects the right of a copyright owner under this title' if the measure, in the ordinary course of its operation, prevents, restricts or otherwise limits the exercise of a right of a copyright owner under this title."*[881]

The first provision protects measures which control any access to a work, whether they prevent copyright infringement or not. The second provision protects measures designed to prevent or restrict copyright infringements.

A matter for interpretation will be the relevance of the *Stevens v. Sony* decision in light of the new amendments to the *Copyright Act* and whether the courts will associate the meaning of the term 'access' with 'use'. If the interpretation of 'controls access' is understood as controlling access to copyright materials before an act of using or reproduction occurs then the *Stevens v. Sony* decision will remain relevant.[882]

Alternatively, if 'controls access' is to be understood as 'control use' of a device after access to copyright materials have been attained then the *Stevens v Sony* decision will have limited relevance.[883]

What is most alarming is that a great number of digital goods and services are being purchased by consumers with TPMs embedded in the digital coding or accessed through the use of technology. The purpose of TPMs, as protected by anti-circumvention law, is to limit or restrict the consumer's use of the product. What is not evident to consumers of these products until the purchase of these goods have been made, is that the restrictions imposed on the product may lead to interoperability issues and limited choice for accessories, thereby, restricting access to works and preventing innovation in developing new, creative and innovative products.

As discussed at the end of section 6.2, the *Copyright Act 1968* (Cth) provides specific and adequate protection to copyright owners from direct infringements of creating, uploading,

[880] 17 USC § 1201(b)(1)(A).
[881] 17 USC § 1201(b)(2)(B).
[882] Fitzgerald, B., op.cit., p.12.
[883] Ibid, p.13.

downloading and sharing unauthorised music files whether via a website, individuals directly creating and sharing a copy made from an illegitimate copy, posting to a billboard or through providing P2P software facilities to allow the sharing of unauthorised music files between users. The law relating to circumvention devices to protect technological protection measures adds further to the copyright owners' armoury by making it unlawful to circumvent both an ACTPM and TPMs.

6.4 ELECTRONIC RIGHTS MANAGEMENT INFORMATION

Some further provisions which complement anti-circumvention provisions in the Copyright Act are those which allow copyright owners to bring actions against those who remove or alter Electronic Rights Management Information (ERMI). ERMI is material that is affixed, embedded or connected to protect digital data. ERMI can identify and trace the data, the creator and the copyright owner. This form of information is usually some sort of watermark or digital rights management technology.[884] ERMI can also describe the copyright owner's terms and conditions to use the material.

In relation to the production of digital sound files, ERMI can be attached by copyright owners to each track on the CD/DVD prior to its release to the market, or it can be attached to a digital music file for downloading.

In order for ERMI provisions to aid the recording industry's cyberspace policing efforts, copyright owners will need to mark their musical works with some sort of digital watermark. If digital watermarking of music becomes common, it is highly probable that the ERMI provisions of the *Copyright Act* will enable the copyright owners to more easily distinguish between authorised and unauthorised music files. As a result, the ERMI provisions have the potential to also assist the efforts of copyright owners to detect pirated music on the Internet and to enforce their rights against infringers, particularly where removal of their watermarks or DRM's have taken place.

6.4.1 Protection of ERMI prior to 1 January 2005

Before the FTA amendments took effect, the Copyright Act previously contained provisions protecting ERMI when the *Digital Agenda Act* was implemented. The *Digital Agenda Act* in 2000 inserted s.116B of the Act which applied to ERMI that attached to a work or other subject matter and provided civil and criminal sanctions against the removal or alteration of ERMI.
Section 10(1) of the Act defined ERMI to mean:

[884] Digital Rights Management is discussed in detail in Chapter 6 of this thesis.

"(a) information attached to, or embodied in, a copy of a work or other subject-matter that:

(i) identifies the work or subject-matter, and its author or copyright owner; or

(ii) identifies or indicates some or all of the terms and conditions on which the work or subject-matter may be used, or indicates that the use of the work or subject-matter is subject to terms or conditions; or

(b) any number or codes that represent such information in electronic form."

The provisions also provided for sanctions against commercial dealings in copyright material where ERMI had been altered or removed, if the person knew this was done without lawful authority.

6.4.2 Protection of ERMI from 1 January 2005

The FTA broadened the scope of protection for ERMI in the Copyright Act. Protection of ERMI was expanded to include ERMI that is or was attached or embodied in a copy of a work or other subject matter. The provisions also include both civil and criminal penalties for the removal or alteration of ERMI from copies of works or other subject matter.

6.4.3 New Definition of ERMI

Section 10(1) now defines ERMI as information that:

"(a) is electronic; and

(b) either:

(i) is or was attached to, or is or was embodied in, a copy of the work or subject-matter; or

(ii) appears or appeared in connection with a communication, or the making available, of the work or subject-matter; and

(c) either:

(i) identifies the work or subject-matter, and its author or copyright owner (including such information represented as numbers or codes); or

(ii) identifies or indicates some or all of the terms and conditions on which the work or subject-matter may be used, or indicates that the use of the work or subject-matter is subject to terms or conditions (including such information represented as numbers or codes)."[885]

6.4.4 Removal or alteration of ERMI

The protection for removal or alteration of ERMI is provided by section 116B of the Act. Section 116B permits the copyright owner or exclusive licensee to bring an action against a person who removes or alters ERMI without permission from the owner or exclusive licensee. The provision also states that the person who removed or altered the ERMI must have '[known] or ought reasonably to have known that the removal or alteration would induce, enable, facilitate or conceal an infringement of copyright'. To make P2P file sharing possible, peers have to subject music works to ripping, conversion, alterations and modifications which may subject these works to significant modification and distortion.[886] Furthermore, it may also infringe the copyright owner's moral rights of attribution of authorship if the ERMI is removed infringing Part IX of the Copyright Act.[887]

6.4.5 Distribution to the public of works whose ERMI has been removed or altered

The protection against the distribution to the public where ERMI has been removed or altered is provided by Section 116C of the Act. Section 116C permits the copyright owner or exclusive licensee to bring an action against a person where ERMI has been removed or altered in relation to the work or other subject matter and the person:

- 'distributes a copy of the work or other subject-matter to the public';

[885] See s.10(1) definition of *"Electronic Rights Management Information"* contained in the *Copyright Act 1968* (Cth).
[886] Vincents, B., *"When Rights Clash Online: The Tracking of P2P Copyright Infringements vs. The EC Personal Data Directive"*, Int J Law Info. Tech., Vol. 16, No. 3, 2008, p. 281.
[887] The removal of ERMI from a digital music file may also infringe the Moral Rights regarding attribution of authorship and integrity pursuant to Part IX of the *Copyright Act 1968* (Cth).

- 'imports into Australia a copy of the work or other subject-matter for distribution to the public', or

- 'communicates a copy of the work or other subject-matter to the public'.

6.4.6 Distribution and importation of ERMI that has been removed or altered

The protection against the distribution and importation of ERMI where it has been removed or altered is provided by section 116CA of the Act. Section 116CA permits a copyright owner or exclusive licensee to bring an action against a person who 'distributes the ERMI, or imports into Australia ERMI for distribution' without the permission of the owner or exclusive licensee where:

- The ERMI 'information has been removed from a copy of a work or subject-matter without the permission of the owner or exclusive licensee', or

- The ERMI 'information has been removed from a copy of a work or subject-matter with the permission of the owner or exclusive licensee but the ERMI has been altered without permission.'

6.4.7 The effects of the new ERMI provisions

The ERMI provisions introduced by the FTA amended the Copyright Act. It introduced a definition of ERMI that requires ERMI be in an electronic format and expands the scope of protection to include information that 'appears or appeared in connection with a communication , or making available, of the work or other subject matter'.

The amendments remove from civil actions the commercial motivation element for the distribution or importation of material where ERMI has been removed or altered. Therefore, civil liability will be available irrespective of the motivation for distributing or importing material where ERMI has been removed or altered. Furthermore, the new provisions create civil and criminal penalties for the distribution or importation of material where ERMI has been altered or removed. For a criminal offence to be established it must require an element of commercial or profit-making motivation, whereas civil actions do not. The exclusion of the

commercial motivation element from the civil actions relating to ERMI will extensively increase the number of probable defendants and the potential reach of these actions.

Prior to the FTA amendments, no liability could be established where copyright material had the ERMI removed or altered in cases where the distribution was made to the public for free or the material was imported for personal use. However, the change to the Act by the FTA amendments established an increased scope of protection for ERMI which can be used to bring an action against non-commercial or personal distribution of material where ERMI has been altered or removed even though there has been no initial copyright infringement.

The expansion of the definition from having ERMI "attached" to the material to include ERMI that 'appears or appeared in connection with a communication, or making available, of the work or other subject matter' improves the technological neutrality of the definition.

Previously, under the Copyright Act digital media files, such as music, would have had problems formulating ERMI that would meet the definition under the Act. The extended definition offers more flexibility for this type of media to be protected.[888]

The ERMI provisions in the Act intend to legally protect technologies such as digital watermarking of music files. This is extremely important in the file sharing context because ERMI can legally provide an avenue for copyright owners to enforce their rights against the alteration or removal of watermarks from music files where the watermarks can be used to identify the source and destination of data thereby providing copyright's owners with a useful tool to authenticate content when copyright infringement is suspected. Once watermark technology advances these provisions may be relied upon by digital copyright owners to track files, lock up their content and enforce their copyright works from infringement.

However, to date watermarks have not been incorporated very successfully because watermarking is not a DRM instead it is an identification technology. Watermarking could be used to encode all manner of information into a digital sound file (e.g. name of a purchaser, a purchase date, etc.), but it differs from DRM in that it isn't designed to directly enforce use or

[888] Varghese, J., *"Guide to copyright and patent law changes in the US Free Trade Agreement Implementation Bill 2004"*, Department of Parliamentary Services, Current Issues Brief No.3 2004-2005, 3 August 2005, p.15, located at http://www.aph.gov.au/library/Pubs/cib/2004-05/05cib03.pdf (accessed on 4 August 2008).

non-use of the content. Furthermore, once watermarks are removed from a sound file, then the sound file can be easily proliferated without detection.

In summary, ERMI not only complements the anti-circumvention provisions in the Copyright Act but also bolsters further the copyright owner's position by protecting sound files with technologies that can track, encrypt and determine use of these files over the Internet These provisions add further to the copyright owner's arsenal against copyright users.

6.5 CARRIAGE SERVICE PROVIDER LIABILITY

Internet service providers (ISP's) and Telecommunication Service Providers make transient copies of copyrightable works in their caches after a user has requested to download a copy by usually clicking on the link to download the file.

Since the music industry has become more assertive in protecting their rights against copyright infringers, ISP's have been forced into dealing with the prolific number of disputes relating to copyright infringement claims.[889] While disputes have increased ISPs have become concerned about their legal responsibility for customers using their network and services that may be engaged in copyright infringement and having to balance those customer's privacy rights against the demands of copyright owners to disclose their customer's details for alleged acts of copyright infringement.[890]

Copyright owners have identified using ISP's as a way to support them in imposing their legal rights against copyright infringers or in the alternate as an additional party in copyright infringement proceedings. For this reason, as distinct from their customers, ISP's tend to be more accessible, better financially resourced, recognisable and operate the services from which their customers use to gain access to the Internet.[891] In the United States, s.512 of the *US Copyright Act* assists copyright owners to impose their legal rights and to have ISP's support them in achieving this.[892] Section 512 of the *US Copyright Act* provides a 'safe harbor' and limits the remedies for ISP's from copyright infringement only if their behavior meets the requirements laid down in that provision as established by the *US Digital Millennium Copyright Act* ("DMCA") in 1998.[893]

The DMCA requires that ISPs act in accordance with a notice and take down procedure in respect of copyright infringing material from their networks, and to disclose their customer's details if they are suspected of copyright infringement to copyright owners where a subpoena is

[889] Middleton, G., "*Copyright Conundrum – Liability for ISPs for Online Copyright Infringement*", op.cit., p.1.
[890] Ibid.
[891] Charbonneau, J., *"Protecting the Messenger: Carriage Service Providers' Liability for Third Party Copyright Infringement"*, 13 ELaw J. 37, 2006, p.38.
[892] *US Copyright Act 1976* 17 USC.
[893] *Digital Millennium Copyright Act 1998* (US).

issued.[894] Copyright owners' recent attempts to lean towards ISPs to support them in the enforcement of their actions against infringing activity from ISP subscribers have raised numerous concerns for both ISPs and their customers alike.

ISPs are of the view that, as they only provide the facilities and network for their customers to access and as they are generally not made aware or have any control over their customer's online activities, then they should not be held liable for the actions of their customers which infringe copyright.[895] Privacy issues are also a major concern for both ISPs and their customers where copyright owners can acquire details of alleged infringing customers without some form of court intervention (i.e. an injunction).[896]

There has been considerable opposition from ISPs and their customers in the US to the notice and take down provisions provided in s.512 of the *US Copyright Act,* because they are of the view, that copyright owners are taking advantage of these provisions to control digital content on the Internet without just cause or evidence to substantiate the copyright infringement.[897]

In the US, copyright owners can obtain subpoenas to disclose and identify possible copyright infringers pursuant to s.512(h) of the US Copyright Act and ISPs are concerned about the escalating costs involved with meeting and complying with these subpoenas.[898] These concerns over privacy issues and the escalating costs with meeting subpoenas served on them by copyright owners have forced some ISPs in the US to contest the subpoenas issued under s.512(h) of the *U.S. Copyright Act* (For a summary see *Recording Industry Association of America, Inc. v Verizon Internet Services, Inc.*[899] in Chapter 5).

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[894] Kim, E., *"Youtube: Testing the Safe Harbors of Digital Copyright Law"*, 17 S. Cal. Interdisc. L.J. 139, 2007-2008, pp.157-158.
[895] Bayer, J., *"Liability of Internet Service Providers for Third Party Content"*, 1 Victoria U. Wellington Working Paper Series 1, 2008, p.2.
[896] Rich, L., *"Limitations of remedies available against Carriage Service Providers under the AUSFTA – more trouble than its worth?"*, NSW Society for Computers and the Law Journal, Issue 59, March 2005 located at http://www.nswscl.org.au/journal/59/Rich.html (accessed on 13 October 2008).
[897] Birchall, S., *"Copyright Crack Down – The Implications for Australian Internet Service Providers under a Free Trade Agreement between Australia and the United States.",* Computers & Law, Vol. 52, 2003, pp.25-29; See also Footnote 1135.
[898] Boeve, M., *"Will Internet Service Providers be Forced to Turn in their Copyright Infringing Customers - The Power of the Digital Millennium Copyright Act's Subpoena Provision after In Re Charter Communications"*, 29 Hamline L. Rev. 115, 2006, p.120.
[899] *RIAA v. Verizon* 2003 U.S. App. LEXIS 25735 vacating and remanding 240 F. Supp. 2d 24 (D.D.C. 2003); CA 02-MS-0323 (D.D.C. 2002).

With the introduction of the FTA on the 16 August 2004, the *Copyright Act 1968* (Cth) was amended to include similar provisions to those contained in s.512 of the *US Copyright Act*. The FTA implemented the Australia-AUSFTA and in particular Article 17.11.29 which addresses limitations on liability of ISPs and other service providers. Like their US counterparts, similar concerns by Australian ISPs relating to privacy issues and costs were also raised when the provisions were passed into law.

6.5.1 ISP Liability Pre-FTA Position

In an effort to deal with the problems that emerging digital technologies posed to Australian copyright law, the *Digital Agenda Act* was passed by the Australian government to amend the then *Copyright Act*. The Australian Government's commentary on an exposure draft of the *Digital Agenda Act*, stated that the main goal of the reforms was to "ensure that copyright law continued to promote creative endeavour while allowing reasonable access to copyright material through new communications technology."[900]

6.5.1.1 Digital Agenda - ISP Liability

In the High Court decision of *Telstra Corporation Limited v Australasian Performing Right Association Limited*,[901] the majority of the Court held that Telstra infringed APRA's right to cause various music copyright to be transmitted to subscribers by a diffusion service that played music on-hold, irrespective of the fact that Telstra did not always provide or select the music.

In the wake of the *Telstra* case, the *Digital Agenda Act* introduced a number of amendments to address ISP liability for acts of copyright infringement made possible through the use of their networks or services.

The *Digital Agenda Act* introduced section 22(6) which provided for a new right of 'communication to the public'. This provision clarified that the person who determines the

[900] See Attorney-General's Department Overview of Copyright Amendment (Digital Agenda) Act 2000, located at http://www.crimeprevention.gov.au/agd/WWW/rwpattach.nsf/viewasattachmentPersonal/(A0E22772974CC5513F69378CCFFF57C2)~copyfactsheet.pdf/$file/copyfactsheet.pdf; Explanatory Memorandum accompanying the Act (accessed on 8 February 2008).

[901] *Telstra Corporation Limited v Australasian Performing Right Association Limited* (1997) 38 IPR 294.

content of the communication may be liable and not the ISP over whose network or facilities the communication is made.[902]

New reforms to sections 36 and 101 were also introduced into the Act regarding authorisation infringement. Pursuant to s.13(2) of the Act, a copyright owner has the exclusive right to authorise others to exercise any of the exclusive rights of the copyright owner. The new sections 36(1A) and 101(1A) of the Copyright Act espouses the elements required to indicate authorisation of copyright infringement set by the High Court of Australia in *University of New South Wales v Moorhouse*.[903] These sections provide the court with criteria to determine whether a person has authorised copyright infringement. The criterion that a court must consider is:

> "*(a) the extent (if any) of the person's power to prevent the doing of an [infringing] act;*
>
> *(b) the nature of any relationship existing between the person and the person who did the act [infringing acts] concerned; and*
>
> *(c) whether the person took any reasonable steps to prevent or avoid the doing of an act [infringing act], including whether the person complied with any relevant industry codes of practice."*[904]

New sections 39B and 112E of the Act were introduced to clarify the position of ISPs in that they would not be deemed to have authorised copyright infringement merely because the network or services for making a communication provided by ISPs are used by a person to infringe copyright. However in *Universal Music Australia Pty Ltd v Cooper & Ors*[905] the Federal Court held that although the ISP may have provided facilities for the purposes of s.112E, the provision did not confer a 'general immunity to a finding of authorisation' and that it did not exclude the possibility that a 'person who falls within the section may be held for other reasons

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[902] Hakim, S., *"Copyright and the Liability of ISPs"*, Law Institute Journal, Volume 73, Issue 9, 1999, pp.62-65.; see also Middleton, G., *"Copyright Beyond the Digital Frontier - Australia's Proposed Digital Agenda Reforms"*, Journal of Law and Information Science, Vol. 10, Issue 1, 1999, pp.52-81.
[903] *University of NSW v. Moorehouse and Angus & Robertson (Publishers) Pty Ltd* (1975) 133 CLR 1.
[904] ss.36(1A) and 101(1A) of the *Copyright Act 1968* (Cth).
[905] [2005] FCA 972.

to be an authoriser'. Based on Cooper's activities they were deemed to be more than a mere messenger because the operators had encouraged users to infringe copyright.[906]

At the time the *Digital Agenda Act* was implemented, the liability of ISPs for online copyright infringement had to be resolved by reference to authorisation liability. This was an unsatisfactory situation for ISP's which left them at great risk, because the more an ISP attempted to prevent and monitor copyright infringement on their services, the more they were perceived as having control to prevent these acts and were more likely to be held responsible for authorisation liability.[907]

6.5.1.2 Exclusion for Temporary Reproductions

Before the *Digital Agenda Act* was implemented, there was growing concern amongst Australian Internet users that Internet browsing involved the making of temporary copies of copyright materials in the computer's RAM and potentially could be held liable for copyright infringement for reproducing those materials.[908]

These issues were addressed by the *Digital Agenda Act* with the introduction of sections 43A and 111A into the Copyright Act. These provisions provide that a person will not infringe copyright 'by making a temporary reproduction or adaptation of [those materials] as part of the technical process of making or receiving a communication'. However these sections will not avail a person from copyright liability if the making of the communication is in itself an infringement of copyright.[909]

ISPs tend to exercise the common practice of 'proxy' or 'forward' caching. These practices require an ISP to make copies of high demand websites on its proxy server to enable faster access to these websites when requested by a user. The general view is that passive or automatic caching would be covered by s.43A and 111A of the Copyright Act because these are temporary reproductions made 'as part of the technical process of making or receiving a communication.'

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[906] Ibid per Tamberlin J at paragraphs [97-99], [126] and [131]; although relating to software see also *Universal Music Australia Pty Ltd & Ors v. Sharman License Holdings Pty Ltd & Ors* [2005} FCA 1242 per Wilcox J at paragraph [399].
[907] Middleton, G., *"Copyright Conundrum – Liability of ISPs for Online Copyright Infringement"*, op.cit.
[908] Ibid.
[909] Garlick, M and Nicholls, R., *"Proxy Caching – The New Fair Dealing?"*, Telemedia, Vol. 3, Issue 2, 1999, p.13. See also s.43A and 101A of the *Copyright Act 1968* (Cth).

However, it is unlikely that proxy caching would meet the exceptions in ss.43A and 111A because reproductions made in the course of proxy caching are not temporary, and therefore cannot be deemed to be made 'as part of the technical process of making or receiving a communication.'[910]

Sections 43A and 111A of the Act did not provide protection for all temporary reproductions. In order to overcome this limitation, the FTA implemented provisions to ensure that temporary, non-reproducible reproductions were protected with limited exceptions.[911]

The Copyright Amendment Act 2006 (Cth) inserted a new exception being s.200AAA into the Copyright Act (Cth). The new s.200AAA clarifies that proxy caching is permissible and does not infringe copyright. However, this section only applies to educational institutions and would appear not to apply to ISPs.

The insertion of the new exception of ss.43B and 111B by the FTA into the Act were further amended by the *Copyright Legislation Amendment Act* in order to clarify their scope. These provisions limit the broader definition of 'material form' in s.10(1) and limits the exception for incidental copies to temporary copies "made as a necessary part of the technical process of using a copy of a work or other subject matter."[912]

The exception ensures that certain temporary reproductions made incidentally as part of the technical process of using a legitimate copy of the copyright material will not constitute an infringement of copyright.[913]

The exception will not apply if the temporary reproduction is made from 'an infringing copy' or, if the "copy is made in another country and would be an infringing copy if it had been made in Australia."[914] The exception will also not apply where the temporary copy occurs as a result

[910] Ibid.
[911] Varghese, J., op.cit.
[912] ss.43B and 111B of the *Copyright Act 1968* (Cth)
[913] Attorney-General's Fact Sheet: *US Free Trade Agreement Implementation Act 2004 Right To Reproduce/Copy Exception for the normal use of Copyright Material*, located at http://www.tisn.gov.au/agd/WWW/rwpattach.nsf/VAP/(CFD7369FCAE9B8F32F341DBE097801FF)~9+MARCH+FACT+SHEET++reproduction+right+and+new+exception.pdf/$file/9+MARCH+FACT+SHEET++reproduction+right+and+new+exception.pdf (accessed on 31 March 2008).
[914] See ss. 43B(2) and 111B(2).

from a use that infringes copyright. The exceptions will also not extend to "subsequent uses of the temporary copy beyond the original technical process in which it was made."[915]

It has been suggested by Varghese that the "effect of this exception might be that end-users of infringing materials become infringers in their own right."[916]

He states,

> *"This would be a significant extension of the reach of copyright law. Copyright law normally acts on those who produce, reproduce, sell, distribute, exhibit to the public or make other commercial use of unauthorised copies, not on those who make final, personal use of those copies. These end-users of pirate material are not normally liable."*[917]

Because numerous amounts of digital media are delivered electronically, the exception could create what Varghese suggests as a 'creeping end-user infringement'.[918] In Varghese's view not only would this be a considerable variation to the nature of copyright, it also effects the technology neutrality of the Act."[919]

For example, listening to an analogue sound recording would be a non-infringing activity. However, playing an infringing DVD would be an infringement simply because the nature of using or enjoying this media technically involves 'reproduction'.

In the *Cooper* case, the ISP attempted to rely on the defence provided in s.111A of the Act. Tamberlin J held that the respondents could not rely on this defence for two reasons.

> *"…first, that they do not rely upon the mere making of a 'temporary copy' of any sound recording as an act of infringement because the copies of the sound recordings that were available on the remote websites were all permanent copies of the files, and secondly, that s.111A does not apply where the 'temporary copy' is made 'as part of the technical*

[915] Ibid ss.43(B)(3) and 111B(3).
[916] Varghese, J., op.cit.
[917] Ibid.
[918] Ibid.
[919] Ibid.

process of making a communication if the making of the communication is an infringement of copyright.'"[920]

6.5.2 CSP Liability Post-FTA Position

In order for Australia to meet its obligations in AUSFTA to implement Article 17.11.29, the FTA took effect from the 1 January 2005 and amended the then Australian *Copyright Act 1968* (Cth) by inserting Division 2AA of Part V into the Act.[921]

Unlike the fair dealing provisions contained in the Act, the new provisions did not establish specified exclusions from copyright infringement. Instead these provisions limited the remedies available to ISPs and other Carriage Service Providers (CSPs) (as defined in the *Telecommunications Act 1997* (Cth)) for copyright infringement in certain categories of activity but only if those CSPs comply with certain prescribed conditions.[922]

6.5.2.1 Safe Harbours and Limitation of Remedies

Similar to the US "safe harbour" scheme, the insertion of Division 2AA of Part V of the *Copyright Act* implements a prescriptive format for limiting the remedies to CSPs for authorising copyright infringement by the acts of their customers in relation to defined categories of activity on the proviso that certain prescribed conditions are met by the CSP.

The categories of activities are detailed in ss. 116AC to 116AF of the Act.[923] The limitations of remedies contained in section 116AG are acutely similar to the "safe harbours" of the US DMCA, and are detailed below:

1. **Category A activity** – "Providing facilities or services for transmitting, routing or providing connections for copyright material, or intermediate and transient storage of copyright material in the course of transmission, routing or provision of connections."[924]

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[920] *Universal Music Australia Pty Ltd & Ors v. Cooper & Ors* [2005] FCA 972 at paragraph [132].
[921] *US Free Trade Implementation Act 2004* (Cth).
[922] Middleton, G., *"Copyright Conundrum – Liability of ISPs for Online Copyright Infringement"*, op.cit.
[923] See Attorney-General's Department – *Fact Sheet Limitations on Remedies for Copyright Infringement against Carriage Service Providers,* located at http://www.ag.gov.au/www/agd/rwpattach.nsf/VAP/(CFD7369FCAE9B8F32F341DBE097801FF)~9+MARCH+FACT+SHEET+CSP+limitations+on+remedies+scheme.pdf/$file/9+MARCH+FACT+SHEET+CSP+limitations+on+remedies+scheme.pdf (accessed on 31 March 2008); See also ss.116AC-116AF *Copyright Act 1968* (Cth).
[924] See s.116AC of the *Copyright Act 1968* (Cth).

2. **Category B activity** – "Caching copyright material through an automatic process. The CSP must not manually select the copyright material for caching."[925]

3. **Category C activity** – "Storing, at the direction of a user, copyright material on a system or network controlled or operated by or for the CSP."[926]

4. **Category D activity** – "Referring users to an online location using information location tools or technology" [927] (i.e. linking).

Where a CSP meets the conditions as outlined in section 116AH(1) of the Act that apply to the specified categories of activities being A-D, and that a CSP in meeting any of those activities infringes copyright, section 116AG(3) of the Act prescribes that a court may only grant the relief to the CSP for those infringing acts in accordance with the criteria set down below:

1. In relation to **Category A activities**:

   "(a) an order requiring the CSP to take reasonable steps to disable access to an online location outside Australia';

   (b) an order requiring the CSP to terminate a specified account."[928]

2. In relation to **Categories B, C or D activities:**

   "(a) an order requiring the carriage service provider to remove or disable access to infringing copyright material, or to a reference to infringing copyright material;

   (b) an order requiring the carriage service provider to terminate a specified account;

   (c) some other less burdensome but comparably effective non-monetary order if necessary."[929]

In deciding which orders a court may make against a CSP with respect to copyright infringements arising from the relevant categories of activities, a court must have regard to the following relevant matters as provided under section 116AG(5):

[925] See s.116AD of the *Copyright Act 1968* (Cth).
[926] See s.116AE of the *Copyright Act 1968* (Cth).
[927] See s.116AF of the *Copyright Act 1968* (Cth).
[928] See s.116AG(3)(a) and (b) of the *Copyright Act 1968* (Cth).
[929] See s.116AG(4) of the *Copyright Act 1968* (Cth).

"(a) the harm that has been caused to the owner or exclusive licensee of the copyright; and

(b) the burden that the making of the order will place on the carriage service provider; and

(c) the technical feasibility of complying with the order; and

(d) the effectiveness of the order; and

(e) whether some other comparably effective order would be less burdensome.

The court may also have regard to other matters it considers relevant."[930]

According to s.116AG(2) for 'copyright infringements that occur in the course of carrying out the categories of activities, a court must not grant relief against a CSP which consists of damages, an account of profits or additional damages.'[931]

The first case to consider the new FTA amendments was the *Cooper* case. In that case the ISP respondents (E-Talk/Com-Cen) sought to rely on the amendments to the *Copyright Act* affected by the FTA Act which came into effect on the 1 January 2005 after the initial hearing on the matter had taken place.[932]

The new amendments provided a defence for ISPs which excludes liability for damages for copyright infringement upon certain conditions. The applicants argued that the new amendments should not apply or be read to operate retrospectively. Tamberlin J agreed with the applicants that the new amendments did not apply to the case.[933] However Tamberlin J stated,

> *"…independently of that consideration, in order for the respondents to avail themselves of the protection, it is necessary under s.116AG(1) of the FTA Act for the respondents to satisfy the Court of the conditions set out in s.116AH, including that the CSP has adopted and reasonably implemented a policy that provides for termination, in appropriate circumstances, of the accounts of repeated infringers. The evidence indicates that despite the respondent's awareness that copyright material was likely to be infringed, they have not taken steps to implement such a policy."*[934]

[930] See s.116AG(5) of the *Copyright Act 1968* (Cth).
[931] See s.116AG(2) of the *Copyright Act 1968* (Cth).
[932] *Universal Music Australia Pty Ltd & Ors v. Cooper & Ors* [2005] FCA 972 at paragraph [103].
[933] Ibid at paragraph [106].
[934] Ibid at paragraph [107].

Further he stated with regard to application of the new amendments,

> *"Section 116AH imposes further conditions depending on the specific category of activity that was engaged in by the CSP. The category of activity engaged in by E-Talk/Com-Cen was what is referred to in s.116AF as a 'Category D activity', that is, 'referring users to an online location using information location tools or technology.' In the present case, the…respondents have not satisfied the particular conditions that apply to Category D activities under s.116AH. These conditions include that the provider must not have received a financial benefit directly attributable to the infringing activity if the service provider has the right and ability to control the activity. As I have found that the infringing activity is the triggering, and consequential downloading, of the music files from the website, I am satisfied that [the respondents] received a financial benefit from the infringing activity on the website because it obtained free advertising on the website. Further, the…respondents did not act expeditiously to remove or disable access from the hyperlinks and facilities hosted on its network notwithstanding that the circumstances made it apparent that copyright material was likely to be infringed."*[935]

6.5.2.2 Conditions on Limitations of Remedies

Each of the conditions required to be met by CSPs varies depending on the category of activity. Some of the conditions require minimal control and access, whereas others necessitate a greater degree of control and access over the material that resides on CSPs systems.

As such **Category A and B activities** are more passive and the CSP can gain safe harbour status by meeting the minimal conditions. For **Categories C and D** activities, CSPs must exercise a greater control and meet the more demanding requirements that apply.[936]

Each Category and their conditions are set out in a table in section 116AH of the Act, but Table 1 below identifies the positive actions that CSPs must take to limit the remedies available to them from authorisation liability for copyright infringement.

[935] Ibid at paragraph [108].
[936] Rich, L., op.cit.

TABLE 1

Category	Conditions
All	1. adopt and reasonably implement termination policy for accounts of repeat infringers; and 2. comply with relevant industry code (if any) in relation to accommodating and not interfering with technical protection and identification measures for copyright material.
A	1. transmissions of copyright material not to be initiated by CSP; and 2. no substantive modifications to content of transmitted material (technical process modifications, e.g. format shifting, acceptable).
B	1. preserve original user access conditions for significant parts of cached material; 2. comply with relevant industry code (if any) in relation to (a) updating cached copyright material; and (b) not interfering with technology used at the originating site to monitor use of copyright material; 3. expeditiously remove/disable cached copyright material upon notification this has occurred at originating site; and 4. no substantive modifications to content of transmitted material (technical process modifications acceptable).
C	1. no financial benefit directly attributable to the infringing activity to be received by CSP; 2. expeditiously remove/disable copyright material found to be infringing by a court upon receipt of *prescribed* notice; 2A. expeditiously remove/disable copyright material if CSP becomes aware that it is or is likely to be infringing; and 3. comply with prescribe*d* procedure for removing/blocking infringing copyright material.
D	1. no financial benefit directly attributable to the infringing activity to be received by CSP; 2. expeditiously remove/block references to copyright material found to be infringing by a court upon receipt of *prescribed* notice; 2A. expeditiously remove/disable copyright material if CSP becomes aware that it is or is likely to be infringing; and 3. comply with prescribed procedure for removing/blocking references to infringing material.

*Source s.116AH of the *Copyright Act 1968* (Cth)

Condition 2 as it applies to **Category C and D activities** prescribes a notice and take down procedure. This notice and take down procedure will apply where a court has determined that the material infringes copyright. Condition 2A as it applies to **Category C and D** activities are conditional on the CSP expeditiously removing or disabling access to copyright material on its network, where the CSP obtains knowledge of the infringement or becomes aware that it is or is likely to be infringing, without the necessity of any confirmation from a court.

Condition 3 as it applies to **Category C and D activities** requires a set notice and take down procedure to take place where a prescribed notice must be provided by a copyright owner and permitting the allegedly infringing user a right of reply by providing a counter-notice.

The FTA provides that where a CSP takes down material in good faith by exercising the take down procedure on the issue of a notice from a copyright owner, the CSP can not be held liable for any resulting claims from their users, on the proviso it takes reasonable steps to promptly

notify the person that it has removed the material. The CSP may take reasonable action to restore the material if the user provides a counter-notification, unless legal proceedings are initiated by the copyright owner who issued the original take down notice.

As provided under conditions 2, 2A and 3, the essential form of notice to be given to CSPs were agreed to in side letters exchanged as part of the AUSFTA.[937] These side letters prescribe the information to be included for an effective take down notice by a copyright owner. For example, the take down notice to a CSP must include:

"1. the name address, telephone number and email address of the complainant;

2. *information that is reasonably sufficient to enable the CSP to identify the works claimed to have been infringed, and to identify and locate the infringing material;*

3. *statements that the complainant has a good faith belief that the allegedly infringing use is not authorised by the copyright owner, its agent or law, that the information in the notice is accurate, and that the complainant is the owner of copyright in the relevant material or their agent; and*

4. *the signature of the person giving the notice."*[938]

The notice and take down requirements in the FTA are exampled on the notice and take down provisions contained in s.512 of the *US Copyright Act*.[939] In some instances copyright owners are abusing the safe harbour provisions on the basis that CSPs are compelled in order to take advantage of the safe harbour provisions to take down the infringing material based on claimed infringement. The US notice and take down procedure, does not require proof of an infringement before a CSP has to remove or block access to the alleged infringing material and in some cases have used these provisions for ulterior motives (e.g. to have competitors' websites removed).[940]

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[937] Side Letter 1 between the US and Australia dated 18 May 2004, located at http://www.dfat.gov.au/trade/negotiations/us_fta/final-text/letters/17_isp_liability.pdf (accessed 15 July 2008).
[938] Ibid.
[939] 17 USC § 512.
[940] Clarke, R., *"The Economic and Cultural Impacts of the Free Trade Agreement Provisions relating to Copyright and Patent Law"*, 2004, located at http://www.anu.edu.au/people/Roger.Clarke/II/FTA17.html (accessed on 3 March 2008); See also Bielinski, L., *"Post-Grokster Contributory Copyright Liability and Potential P2P*

Further, there may be considerable delays from the time a CSP takes down the material to the time they restore the material after a counter-notification has issued and in these cases, the smallest of delays could become critical (e.g. an online e-commerce business). If judicial relief is sought by the complainant within a reasonable time, the material can be removed for a long period until the case is heard.[941]

With regard to the implementation of a notice and take down procedure, one commentator has expressed the view that if additional consumer protections are not inserted into the Copyright Act to protect Australian CSPs, then this would leave CSPs exposed and in a worse position than their counterparts in the US , because:

"*1. the fair use provisions in the US Copyright Act in respect of copyright materials are more substantial than Australia's fair dealing provisions, giving U.S. rights users greater protection; and*

2. *the US Constitution protects the right of freedom of speech, for which there is no Australian equivalent."*[942]

Furthermore user rights associations have highlighted that although there are incentives for CSPs to take down allegedly infringing materials to take advantage of the safe harbour provisions, the FTA does not provide a corresponding incentive for CSPs to restore the material once removed.[943]

Section 116AH(2) of the Copyright Act provides that it is not necessary for a CSP 'to monitor its services or to otherwise seek facts to indicate infringing activity except to the extent required by a standard technical measure' if included in an industry code of practice to protect copyright material. The provision provides some relief to CSPs that do not have the technical means or financial resources to continually monitor the activities of their users.[944]

Entitlement to the DMCA ISP Safe Harbors", 6 Va. Sports & Ent. L. J. 209, 2006-2007, p. 237; See also Varghese, J., op.cit.

[941] Varghese, J., op.cit.

[942] Clarke, R., op.cit.

[943] Australian Digital Alliance, 2004 and Electronic Frontiers Australia, 2004.

[944] Mercurio, B.*, "Internet Service Provider Liability for Copyright Infringement of Subscribers: A Comparison of the American and Australian Efforts to Combat the Uncertainty",* ELAW Journal Vol. 9 Issue 4, 2002, located at http://www.murdoch.edu.au/elaw/issues/v9n4/mercurio94nf.html (accessed on 19 December 2008).

However, the Internet Industry Association (IIA) on 19 May 2005 stated in a media release that a Copyright Code on CSP responsibility and piracy would be released soon.[945] To date a code of conduct has not been released as the music industry's negotiations broke down with the IIA because the IIA did not want to take responsibility for ISPs over the exorbitant costs of complying with copyright owners' demands.[946]

6.5.2.3 Amendments to the Implementation Act by the Copyright Legislation Amendment Act 2004

On 15 December 2004, just months after the passage of the FTA the *Copyright Legislation Amendment Act 2004* (Amending Act) received Royal Assent. The Amending Act substantially altered the 'safe harbour' regime for carriage service providers (CSP) introduced by the FTA. The Amending Act came into effect on the same date as the FTA being 1 January 2005.

The Amending Act, which was introduced to Parliament on 30 November 2004, was heavily criticised by CSPs, including Telstra, and relevant industry bodies.[947] On 8 December 2004 it was reported in *The Australian* that the government had defused this criticism by agreeing to address CSP concerns through regulations (under the *Copyright Implementation Act 1968*) that would 'flesh out the legislative safe harbour provisions'.[948] These provisions were inserted in a new Part 3A[949] into the Copyright Regulations 1969 pursuant to the Copyright Amendment Regulations 2004 (No.1). The Government also promised continued consultation with industry as part of this process. Subsequently, the Amending Act was passed with bi-partisan support.

[945] See IIA Media Release *"IIA Copyright Code to be Finalised"*, dated 19 May 2005 located at http://www.iia.net.au/index.php?option=com_content&task=view&id=55&Itemid=32 (accessed on 19 October 2008).
[946] Montgomery, G., *"MIPI Meltdown – Music industry piracy unit in crisis"*, APC Magazine, 14 October 2005, located at http:c//www.apcstart.com/mipi/ (accessed on 12 November 2005).
[947] Thompson, C., *"The Copyright Legislation Amendment Act 2004: A stealth attack on CSPs"*, Findlaw Australia, January 2005, located at http://www.findlaw.com.au/articles/default.asp?task=read&id=13016&site=GN (accessed on 27 February 2005).
[948] Riley, J., *"ISPs accept copyright promise"*, The Australian, 8 December 2004.
[949] Part 3A Copyright Regulations 1969.

6.5.2.4 The Amending Act

According to the Federal Government, the Amending Act merely clarifies the position for CSPs under the safe harbour regime as set out in the Implementation Act.[950] In his Second Reading Speech, the Trade Minister, Mr Vaile stated that the Amending Act would make it evident "that knowledge of infringing activities by a CSP where the CSP fails to expeditiously remove or disable access to the infringing material disentitles the CSP from taking advantage of the "safe harbour" scheme which limits the remedies available against the CSP."[951]

In fact, the Amending Act does far more than that. Its effect will be that a CSP will lose 'safe harbour' protection if it fails to act to remove or disable access to content even in circumstances in which the court has made no finding that the material is infringing. It will be enough to satisfy the provisions where the CSP has been informed that the content or material is infringing and has failed to expeditiously remove or disable access to it.[952]

6.5.2.5 Concerns for CSPs

There are at least four main concerns for CSPs which are said to arise from the Amending Act. First, a CSP will no longer be able to wait for the finding of a competent court that material is infringing before being obliged to remove or disable the material or links to it. This will put the CSP in the uncomfortable position of having to make its own assessment, on a case by case basis, as to the merits of the copyright owner's claim.[953]

Secondly, because the CSP must act 'expeditiously', this assessment will necessarily be made on the basis of imperfect information: the CSP may well not be presented with the evidence of the copyright owner (or all of it) and the CSP may not have the chance to obtain a full and proper response from its own customer to the allegations which have been made.[954]

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[950] *Second Reading Speech on the Introduction of the US Free Trade Agreement Implementation Bill 2004*, presented by the Trade Minister Mark Vaile, 23 June 2004, copy located at http://www.trademinister.gov.au/speeches/2004/040623_2nd_reading_usfta.html
[951] Ibid.
[952] Thompson, C., *"The Copyright Legislation Amendment Act 2004: A stealth attack on CSPs",* op.cit.
[953] Ibid.
[954] Ibid.

Thirdly, and in contrast with the safe harbour regime under the US *Digital Millennium Copyright Act* 1998, neither the Amending Act nor the Implementation Act provide statutory immunity to a CSP for taking positive steps in an effort to bring itself within a safe harbour. So a CSP which takes down alleged infringing material may face the possibility of a damages claim by a customer.[955]

There is some force in the Government's protestations that industry concerns can be dealt with through further regulations. For example, the *Copyright Regulations 1969* set out a number of provisions in respect of civil remedies relating to the safe harbour scheme,[956] as follows:

- a carriage service provider is not to be liable as a result of action taken in good faith to satisfy relevant conditions[957;]
- if a carriage service provider fails to restore access to particular material as required pursuant to the procedure set out in the regulations, then it may be liable in any action taken by the user or any third party in respect of any such failure,[958] but will not be liable in any action taken by the copyright owner in respect of such failure;[959] and
- a person must not knowingly make a material misrepresentation in any relevant notice,[960] and any person who suffers loss or damage due to such a misrepresentation may bring an action against the issuer of the notice[961] and may discourage copyright owners from sending frivolous or vexatious notices.[962]

Nevertheless, there remain legitimate concerns that the Amending Act may in practice swing the pendulum unduly towards copyright owners and that the regulations may not address all the issues raised on behalf of CSPs and their customers.[963]

Furthermore, to increase the concerns for ISPs in 2008 the Federal Government are considering a new "Three strikes you are out' legislation which is being unveiled in the UK. The legislation

[955] Lemley, M., *"Rationalizing Internet Safe Harbors"*, 6 J. On Telecomm. & High Tech. L. 101, 2007-2008, p.104.
[956] Pursuant to *Copyright Act 1968* (Cth) s.116AJ.
[957] *Copyright Regulations 1969* (Cth), Reg 20V.
[958] *Copyright Regulations 1969* (Cth), Reg 20W(2).
[959] *Copyright Regulations 1969* (Cth) Reg 20W(3).
[960] *Copyright Regulations 1969* (Cth) Reg 20X(1).
[961] *Copyright Regulations 1969* (Cth) Reg 20X(2).
[962] Thompson, C., *"The Copyright Legislation Amendment Act 2004: A stealth attack on CSPs",* op.cit.
[963] Ibid.

compels CSPs to remove and terminate broadband access of their customers where they have been warned on three occasions to stop accessing pirated copyright material through their services.[964]

6.5.3 Obligations to Disclose Infringer Details

At present, no provisions have been implemented into the Act to address an administrative requirement for CSP to disclose the details of alleged online copyright infringers to copyright owners. Consequently, copyright owners that require this information can only rely on the pre-trial discovery process as detailed in the Australian Federal Court Rules and equivalent State and Territory civil procedure rules.

As mentioned earlier in section 5.1.4.2 of this thesis, the pre-trial discovery provisions were used for the first time in the online context to identify certain alleged infringers at Universities for music file swapping.

In the case of *Sony Music Entertainment (Australia) Limited v University of Tasmania,*[965] Sony, EMI and the Universal music companies commenced legal proceedings to obtain evidence of copyright infringement occurring at the Universities of Sydney, Melbourne and Tasmania.

The music companies asked the court to allow their computer experts to scan the computers at the universities for sound files and e-mail accounts so they can gather evidence of alleged widespread copyright violations.[966] The request was granted by Tamberlin J.[967]

The music companies sought in particular discovery and inspection orders to ascertain the identity of alleged copyright infringers and to preserve the records and evidence stored on the Universities' servers pursuant to Order 15A Rules 3 and 6 of the Federal Court Rules (the Rules).

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[964] Gilmore, H and Armstrong, K., *"War on music piracy"*, The Sydney Morning Herald, 17 February 2008, located at http://www.smh.com.au/news/technology/war-on-music-piracy/2008/02/16/1202760662778.html (accessed on 4 April 2008); See also Merante, J., *"A Role in the Remedy: Finding a Place for ISPs in the Digital Music World"*, 29 Loy. L.A. Ent. L. Rev. 387, 2008-2009, p.394.

[965] *Sony Music Entertainment (Australia) Limited v University of Tasmania.* [2003] FCA 532 (30 May 2003); [2003] FCA 724 (18 July 2003); [2003] FCA 805 (29 July 2003); and [2003] FCA 929.

[966] See Case in Chapter 4 of this thesis.

[967] See decision of Tamberlin J in *Sony Music Entertainment (Australia) Limited v University of Tasmania* [2003] FCA 532 (30 May 2003); [2003] FCA 724 (18 July 2003); [2003] FCA 805 (29 July 2003); and [2003] FCA 929.

Order 15 Rule 3 relates to seeking 'Discovery to identify a respondent'. Rule 3 applies:

"(a) where an applicant has made reasonable inquiries but are unable to ascertain the description of the person sufficiently for the purpose of commencing legal proceedings; and

(b) where the respondent has knowledge to facts or documents which tend to assist in the ascertainment of the person's identity,

the Court may order the respondent to make discovery of all documents in its possession relating the description of the person concerned to the applicant."

A similar order can be made under Order 15A Rule 6 relates to seeking 'Discovery from a prospective respondent'. Rule 6 applies:

"(a) where there is reasonable cause to believe that the applicant has the right to obtain relief from the respondent;

(b) where after making all reasonable inquiries, the applicant does not have sufficient information to decide whether to commence legal proceedings against the respondent for copyright infringement; and

(c) where there is reasonable cause to believe that the respondents possess any document, the inspection of which would assist the applicants in deciding whether they have a right to obtain relief,

the Court may order the respondents to make discovery to the applicants of any such document."

In Australia an order to obtain disclosure by CSPs of the details of alleged online copyright infringers to copyright owners must be done in accordance with obtaining a court order as the natural course of pre-trial discovery. For copyright owners to get to the point of pre-trial discovery will take some time, cost and delays before they can obtain the information they require. The next section discusses AUSFTA requirement for Australia to implement an administrative of judicial procedure into the Copyright Act to expeditiously identify infringers.

6.5.3.1 FTA Disclosure Requirements

The AUSFTA obliges Australia to implement an administrative or judicial procedure to provide copyright owners who give notice of infringing activity to expeditiously obtain information from CSPs to identify alleged infringers.[968]

Numerous ISPs, privacy and consumer groups made submissions to the Senate Select Committee on the AUSFTA, claiming that CSPs should not be compelled to disclose their customer information to copyright owners unless a court order is made to that effect.[969]

In other words, these groups advocate that the regulations under the FTA provide for a judicial process rather than an administrative process. These interest groups have been lobbying against disclosing subscriber's details by CSPs to copyright owners due to privacy concerns and the compliance costs associated with the procedure.[970]

The general view of CSPs is that the existing pre-trial disclosure procedure under O15A of the *Federal Court Rules* is adequate and that no changes to the Act are required. Furthermore, CSPs are of the view that the pre-trial disclosure procedure is the best way to protect subscriber's privacy.[971]

Although, copyright owners cannot identify alleged infringers unless a court action has commenced and pre-trial discovery ordered. This procedure runs in stark contrast to the take down procedures discussed in section 6.5.2.2.

Recent amendments to the Copyright Act provide that in order for a CSP to avail itself of the safe harbour provisions under the Act, it must act expeditiously to remove suspected copyright infringing material from its servers upon notice without evidence of ownership being provided to the CSP and without a court order.

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[968] See Article 17.11.29(b)(xi) of *Australia-US Free Trade Agreement 2004.*
[969] See submissions to the *Senate Select Committee on the Free Trade Agreement between Australia and the United States of America* particularly the submissions from the Internet Industry Association, 2004; Electronic Frontiers Australia, 2004 and Australian Digital Alliance, 2004, located at http://www.aph.gov.au/Senate/committee/freetrade_ctte/submissions/sublist.htm (accessed on 25 August 2008).
[970] Ibid.
[971] Ibid.

6.5.3.2 U.S. Administration procedure

The US procedure is governed by s.512(h) of the *US Copyright Act 1976*. This provision, permits copyright owners to be able to obtain details of alleged infringers from CSPs by issuing a subpoena to a CSP.

For a copyright owner to obtain a subpoena, they must have issued and provided a copy of a take down notice under the *US Copyright Act* along with a sworn declaration detailing the purpose for the request (i.e. seeking to identify an alleged infringer and that the information obtained will only be used for that purpose). When a CSP is issued with a subpoena they must expeditiously abide by the subpoena and disclose to the copyright owner the information required by the subpoena.[972] Under this procedure there is no condition to allow for a judicial evaluation of the merits of a subpoena.[973]

The issue of subpoenas in the US came under scrutiny when Verizon Internet Services ("Verizon") an ISP refused to comply with a subpoena issued by RIAA. RIAA filed for an order in the US District Court to be granted an information subpoena to identify alleged infringers of copyright that utilised Verizon's facilities. Verizon relied on the first safe harbour provision claiming that they were merely a passive conduit for the allegedly infringing activities of their user's and hence was not subject to the notice and take down procedures required under s.512 of the *US Copyright Act 1976*. [974] The Court held that the take down notice could be issued in respect of the first safe harbour, even though there was no provision for it in the procedure. [975] At first instance, RIAA was successful in the action and was granted an order to enforce the subpoena against Verizon.

Verizon appealed and were successful in having the decision at first instance overturned. RIAA next appealed the case to the US Supreme Court which affirmed the Appeal court's decision.[976] This case raised serious issues for CSPs regarding the potential for abuse of the subpoena

[972] Birchall, S., op.cit.
[973] Ibid.
[974] *Recording Industry Association of America v Verizon Internet Services, Inc.*, 2003 U.S. App. LEXIS 25735 vacating and remanding 240 F. Supp. 2d 24 (D.D.C. 2003); CA 02-MS-0323 (D.D.C. 2002); Certiorari by RIAA refused by US Supreme Court dated 24 May 2004.
[975] Ibid.
[976] *Recording Industry Association of America, Inc. v Verizon Internet Services, Inc.* 2003 U.S. App. LEXIS 25735 vacating and remanding 240 F. Supp. 2d 24 (D.D.C. 2003); CA 02-MS-0323 (D.D.C. 2002); Certiorari by RIAA refused by US Supreme Court dated 24 May 2004.

process by copyright owners. CSPs main concerns related to the privacy implications of releasing their subscriber's details and the cost burden of compliance with having to meet numerous subpoenas issued pursuant to s.512(h).[977]

Not unlike the notice and take down procedures, CSPs are worried about the subpoena procedure and its capacity to be used for ulterior motives.[978] Weight can be given to CSPs concerns regarding the burden of compliance because as at 19 December 2008, the RIAA had served almost 35,000 subpoenas under s.512(h) of the *US Copyright Act 1976* seeking to indentify copyright infringers.[979]

In summary, the significance of these amendments to the ongoing file sharing battle between the music industry and file sharers is that:

1. CSPs may be exposed to liability for copyright infringement from copyright owners if they do not act expeditiously take down alleged infringing music files;

2. CSPs may be exposed to liability from their customers for breach of contract if they remove content expeditiously upon notification which the material is later proven to be legitimate;

4. CSPs are required to take down material upon the service of either a court order or a prescribed notice depending on the category of activity;

5. the amendments are able to be abused by copyright owners; and

6. the amendments severely swing the balance in favour of the copyright owners.

[977] Birchall, S., op.cit.
[978] Ibid.
[979] Seay, J., *"Hang 'Em High: Will the Recording Industry Association of America's new Plan to Posse up with Internet Service Providers in the Fight against Online Music Piracy Finally Tame the Wild Internet"*, 16 J. Intell. Prop. 269, 2008-2009, P.272; See also Resnikoff, P., *"RIAA Delivers More Lawsuits, Catches More Drama",* Digital Music News, 25 April 2006, located at http://www.digitalmusicnews.com/results?title=MIT (accessed on 13 December 2006).

6.6 DEFENCES

Defences and exceptions to copyright infringement are extremely important to assess to determine whether a 'balance' has been struck between copyright owners and copyright users. In order to determine whether such a balance exists a comprehensive review of the fair dealing defences and exceptions to copyright infringement contained in the *Copyright Act 1968* (Cth) will be made in this Chapter.

On some occasions it is permissible for copyright material to be utilised without the permission of the copyright owner or exclusive licensee. In these cases reliance on specific defences or exceptions to copyright infringement are required by the user of the copyright material. Much debate concerning these defences has been raised since the FTA amendments were implemented. Whilst copyright owners have rights relating to their copyright works, the public also has a need to access these works. Many commentators have suggested that the traditional balance between the rights of copyright owners and copyright users are now predominantly skewed in favour of copyright owners.[980] However, the recent Fair Dealing amendments have provided clarity, and an additional defence for some forms of copying from legitimately acquired recordings, where they are for personal use. However, this defence will not be available if the copy for personal use was made from an illegitimate copy. See previous discussion regarding direct infringement in section 6.2.1.2 of this thesis.

6.6.1 Fair Dealing

In Australian Copyright law there are fair dealing defences, which exempt certain prima facie copyright infringements, made directly by copyright users, from attracting liability. The exceptions stipulated in the Act relate to specific acts and are limited in number.

The fair dealing defences for original works can be located in Part III Divisions 3, 4, 4A and 5, while the fair dealing defences for sound recordings are found in Part IV Division 6 of the Act.

[980] See Weatherall, K., *"Weatherall's Law: IP in the land of Oz (and more)"*, weatherall.blogspot.com, located at http://weatherall.blogspot.com (accessed on 8 January 2008); See also Segkar, A., *"Is a general fair use defence required in the digital age?"*, Internet Law Bulletin, Vol. 8 No. 6, September 2005, p.77; See also Waladan, S., *"Copyright Law Following the Australia–US Free Trade Agreement: A Detrimental Shift in the Balance"*, National Library of Australia Gateways, No. 71, October 2004, located at http://www.nla.gov.au/ntwkpubs/gw/71/1copyright.html (accessed on 22 November 2008).

In claiming a fair dealing defence it is not sufficient to merely establish that the otherwise infringing conduct falls into one of the specified purposes listed in the Act.[981] The dealing must also be shown to be fair. What constitutes fair will be considered by the courts and will be dependent on the circumstances of each case. Section 40(2) and s.103C of the Act provides a list of factors to consider when determining whether a dealing in a particular manner is a fair dealing. These constitute:

"(a) the purpose and character of the dealing;

(b) the nature of the work or adaptation;

(c) the possibility of obtaining the work or adaptation within a reasonable time at an ordinary commercial price;

(d) the effect of the dealing upon the potential market for, or value of, the work or adaptation; and

(e) in a case where part only of the work or adaptation is reproduced--the amount and substantiality of the part copied taken in relation to the whole work or adaptation."[982]

Fair dealing defences are available for research and study, criticism and review, reporting of the news and legal advice and judicial proceedings. There are other limited flexible exceptions to copyright infringement scattered throughout the Act.[983] The factors enumerated in s.40(2) for works and its equivalent s.103C for subject matter other than works only relate to the fair dealing defence of research and study. However, all fair dealing defences would normally require some consideration of the factors in s.40(2) and its equivalent s.103C of the Act, whether specifically stated or not, in order to determine whether the dealing was fair.[984] The fair dealing provisions are limited to those defences enumerated in the Act unlike the open ended US style 'fair use' provisions.

[981] Lau, T., op.cit., p.127.
[982] ss.40-43 and ss.103A-104 of the *Copyright Act 1968* (Cth).
[983] See the most notable exceptions relating to file sharing being ss. 22(6A), 39B, 41A, 43A, 43B, 47C, 109A, 110AA, 111A, 116AN(2)-(9), 116AO(2)-(9), 116AP(2)-(5), 112E and 200AB.
[984] Ibid.

In the US there are a number of instances where an individual may legitimately utilise copyright work without infringing copyright under fair use arrangements.[985] "Section 107 of the *US Copyright Act 1976* lists purposes for which a fair use may be made: criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research."[986]

Paradoxically, in the US the list of determinants for fair use is not exhaustive as it is in Australia and therefore provides opportunities for a user to cite a number of legitimate fair use purposes. "Purposes not listed in the *US Copyright Act 1976*, but held to be fair use include: parody, recording a television program for "timeshifting" purposes, and "intermediate" copying of a computer program to produce an interoperable product."[987]

US law utilises four main factors which are essentially identical to four of five factors also used in Australian law for assessing whether a use for research or study is fair.[988]

"(a) the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes;

(b) the nature of the copyright work;

(c) the amount and substantiality of the portion used in relation to the copyright work as a whole; and

(d) the effect of the use upon the potential market for or value of the copyrighted work."[989]

Further in the US, courts have reference to §8 of the US Constitution to determine what is fair. A use which is "productive" or "transformative" is more likely to be considered fair than one that does not add anything to the material used. However, the definition of "productive" or

[985] Monkman, S., op.cit., p.265.
[986] Australian Copyright Council Information Sheet G087v.01 *"Access to copyright material in Australia and the US"*, September 2004, located at http://www.copyright.org.au/pdf/acc/infosheets/G087.pdf (accessed on 23 November 2005).
[987] Beckman, S., *"From CD to MP3: Compression in the New Age of Technology Overlooked Infringement of Fair Use"*, Gonzaga Law Review, Vol. 42, No. 3, 2007, pp.24-25.
[988] Segkar, A., op.cit., p.78.
[989] Ibid.

"transformative" use has been established as a result of a long history of US court decisions and may be difficult to adopt into Australia law.[990]

In the majority of cases the conduct of P2P users would not be able to be characterised as uses falling within the ambit of a fair dealing defences that would exempt P2P users from liability. This is because the conduct of P2P users does not fall within any of the specified fair dealing purposes for musical works or sound recordings. In addition, the conduct of P2P users could hardly be considered fair as they download a full, free and permanent copy of the recording that they would ordinarily have to buy.[991]

In the US, the *Digital Home Recording Act* introduced in 1992 provided amendments allowing the private copying of music using analogue or digital recording media or equipment. Consequently, as long as a levy is paid on the use of digital recording media and equipment and a serial copyright management system installed, private copying may be exempt This is the case where analogue recording media and devices are used, and for recordings made using equipment that does not meet the definitions in the provisions. The writer notes that the defence for private copying of music for the playback in devices of music in different formats existed in the US from 1992. For Australians this defence only became available through the introduction of amendments in 2006 with the passing of the *Copyright Amendment Act 2006* (Cth) ("CAA"). Therefore, in Australia it was considered a direct infringement by individuals to copy music (digital or analogue) for private and domestic purposes up until 2006 when the new amendments were introduced.

6.6.2 Exceptions Servicing Internet Functionality

In certain limited circumstances the Act provides for exceptions to copyright infringement for temporary reproductions. Exceptions exist where the reproduction is made as part of a technical process of use (incidental reproductions) from a non-infringing copy, and where temporary copies are made in the process of communication.[992]

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[990] Australian Copyright Council Information Sheet G087v.01, *"Access to Copyright Material in Australia and the US"*, op.cit.; Scott, J., op.cit., pp.273-277.
[991] Lau, T., op.cit., p.127.
[992] Ricketson, S., and Richardson, M., op.cit., p.420; see also s.111A of the *Copyright Act1968* (Cth).

The *Digital Agenda Act* introduced sections 43A and 111A into the *Copyright Act*. These provisions provide that a person will not contravene copyright 'by making a temporary reproduction or adaptation of [those materials] as part of the technical process of making or receiving a communication'. However these sections will not avail a person from copyright liability if the making of the communication is in itself an infringement of copyright.[993]

Sections 43A and 111A of the Act did not provide protection for all temporary reproductions. In order to overcome this limitation the FTA implemented provisions to ensure that temporary, non-reproducible reproductions were protected with limited exceptions.[994]

The insertion of the exception of ss.43B and 111B ensures that certain temporary reproductions made incidentally as part of the technical process of using a legitimate copy of the copyright material will not constitute an infringement of copyright.[995]

The exception will not apply if the temporary reproduction is made from 'an infringing copy' or, if the "copy is made in another country and would be an infringing copy if it had been made in Australia."[996] The exception will also not apply where the temporary copy occurs as a result from a use that infringes copyright. The exceptions will also not extend to "subsequent uses of the temporary copy beyond the original technical process in which it was made."[997]

Sections 39B and 112E offer some protection from copyright infringement to those who might otherwise be held to authorise infringement by providing the facilities for 'making', or 'facilitating' the making of a communication. The *Cooper* and *Sharman* cases illustrated that the defence under s.112E was not available to either respondent in their respective cases. The provision did not confer 'general immunity to a finding of authorisation' and that it did not preclude the possibility that a 'person who falls within the section may be held for other reasons

[993] Varghese, J., op.cit.
[994] Ibid.
[995] ss.43B and 111B of the *Copyright Act 1968* (Cth)
[996] See ss. 43B(2) and 111B(2)
[997] Attorney-General's Fact Sheet: *US Free Trade Agreement Implementation Act 2004 Right To Reproduce/Copy Exception for the normal use of Copyright Material*, located at http://www.tisn.gov.au/agd/WWW/rwpattach.nsf/VAP/(CFD7369FCAE9B8F32F341DBE097801FF)~9+MARCH+FACT+SHEET++reproduction+right+and+new+exception.pdf/$file/9+MARCH+FACT+SHEET++reproduction+right+and+new+exception.pdf (accessed on 31 March 2008).

to be an authoriser'.[998] Based on Sharman and Cooper's activities they were deemed to be more than a mere messenger because the operators had encouraged users to infringe copyright.

Furthermore, in the *Cooper* case the ISP (E-Talk/Com-Cen) relied on the exception based on s.111A of the Act. The ISP failed in its claim because the copies of the sound recordings that were available on the remote websites were all permanent copies of the files and s.111A does not apply where the temporary copy is made 'as part of the technical process of making a communication if the making of the communication was an infringement of copyright.'[999]

6.6.3 New Flexible Exceptions to Infringement

In light of the narrowness of the fair dealing provisions as compared to fair use in the US, there has been much criticism relating to the imbalance of copyright law in favour of the copyright owners stemming from recent legislative amendment to the Act.[1000] In order to redress the imbalance the Federal Government introduced new amendments to provide limited flexible exceptions to infringement in the Act via the *Copyright Amendment Act 2006* (Cth) (CAA). The CAA came into effect on the 1 January, 2007. The Government decided to revise and extend existing specific exceptions in Australian law rather than to introduce broad and flexible fair use standards.[1001] That makes the amendments complex, but potentially more specific. The most significant reform for copyright users is the introduction of a flexible exception for private use.[1002]

Section 110AA has been inserted into the Act to allow time shift recording[1003] and provides for an individual to create a film or sound recording of a broadcast:

"(a) in domestic premises; and

(b) solely for private and domestic use by watching or listening to the material broadcast at a time more convenient than the time when the broadcast is made."[1004]

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[998] *Universal Music Australia Pty Ltd & Ors v. Sharman License Holdings Pty Ltd & Ors* [2005] FCA 1242 at paragraph [399] and *Universal Music Australia Pty Ltd & Ors v. Cooper & Ors* [2005} FCA 972 at paragraphs [97-99], [126] and [131].
[999] *Universal Music Australia Pty Ltd & Ors v. Cooper & Ors* [2005] FCA 972 at paragraph [132].
[1000] Waladan, S., op.cit.
[1001] Ibid.
[1002] Maslog-Levis, K., *"Free AU consumers to copy music for personal use: Proposal",* ZDNet Australia, 15 June 2004, located at http://www.zdnet.com.au/news/business/0,39023166,39150538,00.htm (accessed on 7 July 2006).
[1003] For a definition of "Time shift recording" and "Time Shifting" see Glossary of Terms at p.26 of this thesis.

Whilst the recording must not be sold, hired, traded, distributed or played in public, it may be borrowed by "a member of the lender's family or household for the member's private and domestic use".[1005]

The time shifting[1006] exception further assumes that the copy will be retained for a limited time only and will not be viewed repeatedly, retained or archived for extended or indefinite periods.

Section 109A has been inserted in the Act to allow format shifting[1007] for private use and permits the owner of a sound recording legitimately purchased in an original format to make a copy in a different format for his or her private and domestic use (e.g. rip a CD to an iPod or make a tape of a vinyl record).[1008]

Further copies are not permissible, except as is necessary for the technical process of making the copy (e.g. ripping a CD to an iPod will necessitate making a copy on the computer's hard-drive as well as on the player).[1009]

Not unlike the time shifting exception, a copy may not be sold, hired, traded, distributed, or displayed in public, but may be borrowed by "a member of the lender's family or household for the member's private and domestic use".[1010] It would seem an act of loaning a copy of a digital music file from a non-infringing copy of a CD to a friend would still be an infringement as the exception only applies "to a member of the lenders family or household."[1011]

Another 'flexible exception' was introduced by s.200AB of the Act. The amendment identifies a vast shift in the manner in which copyright material is utilised in Australia. It is now possible for a court to determine whether a particular use is permissible with the copyright owner's consent. In essence, this is not dissimilar to the 'fair use' defence in the US. However, as it is confined to certain purposes it is much more restrictive.[1012]

[1004] See s.110AA of the *Copyright Act 1968* (Cth).
[1005] s.110AA of the *Copyright Act 1968* (Cth).
[1006] For definition of "Time Shifting" see Glossary of Terms at p.26 of this thesis.
[1007] For a definition of "Format shifting" see Glossary of Terms at p.19 of this thesis.
[1008] s.109A of the Copyright Act 1968 (Cth).
[1009] Weatherall, K., "*Weatheralls Law: IP in the Land of Oz (and more)"*, op.cit.
[1010] See s.109A of *the Copyright Act 1968* (Cth).
[1011] s.109A(3) and s.110AA(3) of the *Copyright Act 1968* (Cth).
[1012] Ibid.

In order for copyright material to be legitimately used in a number of socially beneficial purposes s.200AB is intended to provide a flexible exception. Sub-s.200AB(1) provides that *"the copyright in a work or other subject-matter is not infringed by a use of the work or other subject-matter if all of the following conditions exist:*

(a) the circumstances of the use amount to a special case;

(b) the use is covered by sub-s 200AB (2), (3) or (4);

(c) the use does not conflict with a normal exploitation of the work or other subject matter;

(d) the use does not unreasonably prejudice the legitimate interests of the owner of the copyright."[1013]

and the work or other subject-matter is for non-commercial uses:

- by libraries, archives and museums. For example, including an extract of a historical document in a brochure;[1014]
- by educational institutions. For example, copying a VHS tape to a DVD;[1015] and
- for people with disabilities. For example converting a book to a format enabling it to be read aloud.[1016]

"It appears that the new exception reflects the Berne/TRIPS '3 step test'. That is, the exception is only going to apply:

1. in certain special cases;
2. where the use does not conflict with a normal exploitation of the work; and
3. where the use does not unreasonably prejudice the legitimate interests of the author."[1017]

[1013] See s.200AB of the *Copyright Act 1968* (Cth).
[1014] s.200AB(2) of the *Copyright Act 1968* (Cth).
[1015] s.200AB(3) of the *Copyright Act 1968* (Cth).
[1016] s.200AB(4) of the *Copyright Act 1968* (Cth).

This exception raises a number of questions as to how it will apply. Most importantly is to consider why it is being called 'flexible' because in fact this is not necessarily the case. As the exceptions within the Act are so narrow, the legislators have simply incorporated a few more exceptions to expand the current Australian law to cover some new specific purposes. The s.200AB exception is also limited to certain persons and institutions and does not allow for 'unforeseen' or innovative uses thereby effectively stymieing creativity and innovation.

It is yet to be seen how the application of these exceptions without reference to fair use decisions in the US will take place in the Australian courts. It would appear that Australia will be looking to European and WTO decisions for guidance where the Berne/TRIPS 3-step test has been applied.[1018]

The Government also amended the definition of 'article' to include electronic copies, thereby addressing an issue that emerged regarding the application of s.103 of the *Copyright Act 1968* (Cth) in both the *Sharman* and in the *Cooper* cases. Essentially this would have affected both parties with regards to the claims made by the applicants concerning commercial dealings in infringing digital music files.

Section 41A of the Act for a work and its analogous s.103AA for other subject matter provides a flexible exception to copyright infringement in a work or other subject matter if it is for the purpose of parody or satire. However it is critical that consideration of an individual's moral rights be taken into account particularly if an act includes the distorting or denigrating of these works.

Amendments have also been inserted to ensure that the mere access of a communication such as clicking on a link on a website, or opening a file sent to another person by email does not render the person browsing or receiving the file responsible for the communication.

A new s.22(6A) of the Act states:

[1017] Weatherall, K., *"Fair use, fair dealing: The Copyright Exceptions Review and the Future of Copyright Exceptions in Australia"*, Intellectual Property Research Institute of Australia, 20 May 2005, located at http://www.law.unimelb.edu.au/ipria/publications/workingpapers/Occasional%20Paper%203.05.pdf (accessed on 6 October 2005); see also Hagen, G., and Engfield, N., "Canadian Copyright Reform: P2P Sharing, Making Available and the Three-Step Test", UOLTJ, Vol. 3, No. 2, 2006, p.509.
[1018] Ibid.

"To avoid doubt … a person is not responsible for determining the content of a communication merely because the person takes one or more steps for the purpose of:

(a) gaining access to what is made available online by someone else in the communication; or

(b) receiving the electronic transmission of which the communication consists."[1019]

Under this amendment a user who unwittingly follows a link or opens an attachment to infringing content would be protected, however, should they on send it to another user they would not.

It is important that this measure of protection is not confused with the potential liability for actually providing links to infringing material. *Cooper v Universal Music Australia Pty Ltd*[1020] identified that website providers who link directly to infringing materials for access by users, i.e. music, are guilty of authorising infringement, even when the infringing files are not hosted on their own website.

Overall, the amendments permit certain exemptions from copyright liability with regard to private copying and format shifting of digital music files. The implementation of the limited exceptions via the CAA into the *Copyright Act 1968* (Cth) means the Australian Government has addressed a number of the key challenges associated with copyright law. Exceptions for parody, for time and format shifting and updating the digital provisions, are all going to be beneficial from a users' perspective but the Australian Government still falls short in bringing the law into line with balancing the rights of copyright users and owners. Many of the limited exceptions to copyright infringement provisions are prescriptive to certain technologies such as the format shifting exceptions (nicknamed the iPod exception) and do not take into account the practical aspects for users of new technology.

The CAA significantly increases the strength of copyright owners' rights. The limited exceptions to copyright infringement provisions introduced by the CAA are not flexible but rather remain narrow and restrictive and do not give Australians the same rights that US

[1019] See s.22(6A) of the *Copyright Act 1968* (Cth).
[1020] [2006] FCAFC 187 (18 December 2006).

consumers have under their flexible Fair Use provisions for the reasons as previously discussed in section 6.6.1 earlier in this Chapter.[1021] The new Fair Dealing provisions and limited exceptions to copyright infringement have been criticised by Kim Weatherall as "an unholy mess of qualifications, conditions, and at times incomprehensible drafting."[1022]

Nonetheless, the limited exceptions to copyright infringement introduced by the CAA for the first time permit the ripping of sound files from legitimately purchased recordings/CDs for personal use which decreases the level of control that copyright owners are able to maintain in policing the reproduction of their works. Previously, any copy of a sound recording not in its original format was ipso facto an infringement.

[1021] It has been rumoured that the EFF have been lobbying US congress to permit 'Jailbreaking' the Apple iPhone (circumventing Apple's Technological Protection Measure restrictions) to be added to the US Digital Millenium Copyright Exceptions List to allow developers to have access to applications not developed by Apple and to circumvent Apple's restrictions. See Von Lohmann, F., *"Calling All iPhone Developers: Support EFF's DMCA Exemption for Jailbreaking"*, Electronic Frontiers Foundation, 8 January 2009, located at https://www.eff.org/deeplinks/2009/01/iphone-developers-support-effs-dmca-exemption-jail (accessed on 11 January 2009).

[1022] Weatherall, K., *"Fair use, fair dealing: The Copyright Exceptions Review and the Future of Copyright Exceptions in Australia"*, op.cit.

CHAPTER 7 – COPY PROTECTION TECHNOLOGIES

7.1 TECHNOLOGICAL CONTROLS

Apart from the reliance on copyright law which has been slow to bridge the gap with technology, copyright owners have attempted to restrict access to copyright works by utilising technological measures to prevent copyright owners gaining free access to their works. By incorporating these technological measures copyright owners lock up copyright works and restrict reasonable access to, and use of information by copyright users. Thereby skewing the fine balance between copyright owners and users, in the copyright owners favour.

In this chapter, copy protection technologies will be examined. Copy protection technologies have been considered an important aspect for the music industry, hardware manufacturers and legitimate service providers to maintain control over copyright owners' works. In the digital music fight, the music industry has slowly been wearing down the music pirates by phasing in new copy protection and Digital Rights Management (DRM) technologies to combat them.

7.1.1 Copy Protection and Digital Rights Management Systems

When sound recordings are digitised the selection of a specialised format or "codec" is an essential consideration for the user because there are several proprietary versions available for the user to choose from. An important consideration for the user is the hardware that will play back the proprietary codec because there is no established uniform standard on the market.[1023] Essentially music purchased from the various legitimate online music services is not compatible with the hardware provided by the manufacturers. The most common codecs provided by manufacturers of hardware devices include:

- Apple's Advanced Audio Coding AAC;
- Microsoft's Windows Media Audio;
- Sony's ATRAC3;
- RealNetwork's Liquid and Real Audio;

[1023] Wunsch-Vincent, S., and Vickery, G., op.cit.

- The MP3 (MPEG Audio Layer-3) is an open format and does not contain DRM solutions.[1024]

A variety of copy-protection and DRM technologies have been developed to prevent and minimise the impact of digital music file sharing. DRM technology attempts to control the use of digital copyright works which may have been unforeseen by the copyright holder and serves to encrypt the data or impose usage rights on the works.[1025] The problem is that sophisticated hackers can overcome the technology given enough time and resources and this can effectively expose the copyright work to unauthorised copying.[1026] DRM technology intends to limit or at least prevent unauthorised copying of copyright works for some time.

A DRM strategy cannot assure the music industry that it is the miracle answer to all its problems, for the following reasons:

1. While hackers create solutions and workarounds to DRM protected technology, the music industry is assured to combat this with new advanced technology. The race between hackers and the music industry creates a continuing technological battle which is likely to direct income from the music industry to security research and development, rather than spending money on nurturing, discovering and promoting the creativity of artists.[1027]

2. There is the danger that copy protected CD's would anger consumers and more likely influence copyright infringing behaviour.[1028] Additionally, this form of encryption inhibits permissible 'fair dealing' uses of the media. The use of technological lock-up systems is a primitive way of copy-prevention for CD's.[1029] However, copy protected CD's have been met with great opposition from users. Copy protected CD technology violates the CD standard by inserting corrupt tracks on a CD to prevent the data from being copied. Most home entertainment CD players ignore these corrupt tracks and continue to play the CD.

[1024] Ibid.
[1025] Wilde, .E., and Schwerzmann, J., *"When Business Models Go Bad: The Music Industry's Future"*, International Conference on E-business and Telecommunication Networks 2004 Conference Papers, p.6, located at http://dret.net/netdret/docs/wilde-music-icete2004.pdf (accessed on 29 October 2008).
[1026] Faulhaber, G., *"File Sharing, Copyright, and the Optimal Production of Music"*, 13 Mich. Telecomm. & Tech. L. Rev. 77, 2006-2007, p.77.
[1027] Douglas, G., op.cit.
[1028] Ibid.
[1029] Halderman, J., "*Evaluating New Copy-Prevention Techniques for Audio CDs"*, Washington, D.C, In Proceedings of the 2002 ACM Workshop on Digital Rights Management, 2002; See also Garon, J., *"What if DRM Fails?: Seeking Patronage in the IWasteland and the Vitual O"*, 2008 Mich. St. L. Rev. 103, 2008, p.104.

This is not necessarily the case with the majority of computer CD drives which either refuse the disc or lock-up the drive completely.[1030]

3. More effective and more popular DRM technologies include cryptographic methods and usage tracking.[1031] Nevertheless, the required support for DRM technologies still makes it complex and sometimes not interoperable with other technologies, and from the consumers point of view, they reduce its appeal from the traditional open format CD's.[1032]

   The leakage of unprotected content in an open MP3 format which does not contain DRM (or the DRM has been removed from the music file) means that the unprotected content can continually be shared amongst users.

7.1.2 Copy Protection Methods

7.1.2.1 Encryption

Encryption is a procedure that "jumbles" data in an unintelligible form using a mathematical algorithm in order to convert, shield and maintain the confidentiality of the data.[1033] With the use of a decryption key the data can be converted into a readable form. Encryption prevents unauthorised access from other parties provided the decryption key is known by the recipient and the mathematical algorithm used to encrypt the data remains robust. The basis of encryption is that once a work is encrypted it is then very difficult to modify that work without permission.[1034]

Usually, the process of encryption requires a set of secret keys in order to unjumble the data. This secret pair of keys assists to encrypt or decrypt the data. The main purpose of encryption tools are that they can be used to protect digital content sent electronically over the Internet (i.e. music files).[1035] Generally, there are two methods of encryption, these are:

[1030] Wilde, .E., and Schwerzmann, J., op.cit.
[1031] Duchene, A., and Waelbroeck, P., *"Legal and Technological Battle in Music Industry: Information-Push vs. Information-Pull Technologies"*, Sauder School of Business Working Paper, April 2004, p.2.
[1032] Armstrong, T., *"Digital Rights Management and the Process of Fair Use"*, Harvard Journal of Law and Technology, Vol. 20, Number 1, Fall 2006, p.62.
[1033] See USPTO, *"Technological Protection Systems for Digitized Copyrighted Works: A Report to Congress"*, p.5, located at http://www.uspto.gov/web/offices/dcom/olia/teachreport.pdf (accessed on 19 December 2004).
[1034] Ibid.
[1035] Ibid.

1. "symmetric key" encryption or "secret key encryption"; and

2. "asymmetric encryption" or "public key" encryption".

The secret key encryption method can encrypt and decrypt a digital file with the use of only one key. In using this method to protect digital copyright content it is vital the secret key remains confidential. This method of encryption is jeopardised and can be rendered useless if the secret key is released to a number of parties.[1036] An illustration of secret key encryption being utilised is with the cable television providers. Customers are issued with a card to insert in their set top boxes to permit the service to play. The service is scrambled using a secret key and when a customer subscribes to the service they are issued with a set top box and a card (which is the secret key) that unscrambles the signal. The biggest problem for cable television providers is that sometimes the secret key is released on the Internet and dummy cards are manufactured as a result so that anyone with a set top box can access the signal from the service provider. To combat this activity, cable television providers make regular updates to change the algorithm of the secret key.[1037]

Public key encryption is the more secure of the two encryption methods. The public key encryption method requires two keys both a "public key" and a "private key" to unjumble the algorithm and is normally used to disseminate digital copyright works to the wider public. The public key encryption method is based on the fact that no private keys are exchanged between the originator of the data and the recipient. Encryption of the data occurs by using the public key which is then communicated broadly to the public and the private key remains secret with the intended recipients.[1038]

Once the data is encrypted with the public key it can only be deciphered using the matching private key. In the case of digital music, the copyright owner would encrypt the music file by using the public key of the receiving party and then deliver the file to the receiving party's system. When the receiving party receives the encrypted music file, the receiving party uses the

[1036] Ibid.
[1037] Ibid.
[1038] Ibid.

private key to decrypt and decipher the digital music file. If the receiving party does not hold the private key then the digital music file cannot be opened, edited or decrypted.[1039]

The problem with encryption is that clever individuals often break the encryption scheme soon after it is released. After the encryption is broken, the method for cracking the code can be easily disseminated through the internet. A recent example of the distribution of encryption workarounds can be found in the facts of *Universal City Studios, Inc. v. Reimerdes*[1040], which dealt with the hacking of DVD encryption technologies.[1041] In *Reimerdes*, the CSS (Content Scrambling System) technology touted by the industry to be nearly unbreakable code was thwarted by a 15 year old Norwegian boy who wanted to play DVD's on his Linux system.[1042] The movie studios sued 2600 Magazine because they originally posted and later linked to other sites that posted Decrypt Content Scrambling System ("DeCSS")[1043] (a method to de-encrypt DVD's CSS technology).[1044]

Encryption is used for security for many applications, but for protection against the distribution of music it is weak, as the encryption becomes vulnerable whenever the music file is played back.

7.1.2.2 Digital Watermarking

Watermarking was discussed earlier in section 6.4 of this thesis. However, it is another possible technique for securing music via the Internet. As noted in section 7.1.2.1 above, encryption is a useful method in restricting access to and communicating digital copyright works but encryption by itself can not be the only solution to deter, prevent and protect against digital copying.[1045] The encryption method is only useful during the first transmission of the data; once it is decrypted it is vulnerable to alteration, reproduction, unauthorised use and widespread dissemination. The process of "digital watermarking" is another method of protecting digital

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[1039] Ibid.
[1040] *Universal City Studios, Inc. v. Reimerdes,* 111 F. Supp. 2d 294, 55 U.S.P.Q.2D (BNA) 1873 (S.D.N.Y.) (2000).
[1041] Cohen, J., *"Pervasively Distributed Copyright Enforcement"*, 95 Geo. L.J. 1, 2006-2007, p.6.
[1042] Macavinta, C., *"Teen charged in Connection with DVD Cracking Tool"*, CNET News.com, 25 January 2000, located at http://news.cnet.com/category/0-1005-200-1531192.html (accessed on 14 March 2005).
[1043] For further information on "DeCSS" see Glossary of Terms at p.17 of this thesis.
[1044] Elliott, C., *"Napster and DeCSS"*, New Zealand Law Journal, September 2001.
[1045] Hervey, S., *"Beyond Napster – The Future of the Digital Commons: The Future of Online Music: Labels and Artists"*, 15 The Transnational Lawyer 279, Spring 2002, p.283.

data. This process requires inserting a small application or controlling data directly into the digital work. Traditionally, watermarking was a method of protecting written works by placing notices such as "draft" in the background or by placing the author's mark into a digital work.[1046] Another watermarking method is called "fingerprinting" and this method is used to track and identify the recipient of digitally protected works.[1047] These techniques have advanced for digital works and the term can also refer to other techniques that control usage or identify the recipient of the content. Essentially, digital watermarking is any technique used to hide data in any digital media format.[1048]

The benefit of digital watermarking is that it can be inserted into any digital audio/visual media without discernibly affecting its audible or visual characteristics. The digital watermark cannot be detached or removed from the original data without creating an error in playback or drastically decreasing the data quality. Once digital watermarks are embedded in digital works they will hold important material concerning the source, condition and location of the data.[1049]

Digital watermarks are utilised to detect the unauthorised manipulation of content and in so doing provides control over the integrity of digital content.[1050] Digital watermarking tools have been used as technological protection measures and implemented into systems through various means. These tools can prevent the playing of watermarked music on certain devices. For example, digital watermarking technology has figured in proprietary DVD players that adopt the Content Scrambling System (CSS) encryption technology to control the copy and playback features of these devices. The purpose of the encryption tool is to hunt out watermarks embedded in a film recorded on a DVD and if it does not locate the necessary watermark, the device will reject playing the disc.[1051]

[1046] Sifferd, J., *"The Peer-to-Peer Revolution: A Post-Napster Analysis of the Rapidly Developing File-Sharing Technology"*, 4 Vanderbilt Journal of Entertainment Law & Practice 92, Winter 2002, p.108.
[1047] Sicker, D, Ohm, P., and Gunaji, S., *"The Analog Hole and the Price of Music: An Empirical Study"* 5 J. On Telecomm. & High Tech. L. 573, 2006-2007, p.575.
[1048] Ibid.
[1049] Ibid.
[1050] Aranda, A., "*Inducing a Remedy or Courting a Solution? A Comparative Institutional Analysis of the P2P Dilemma"*, St. Louis U. L.J. 851, 2005-2006, p.879.
[1051] Kramarsky, S., op.cit., pp.11-12.

7.1.3 Digital Rights Management Technologies (DRM's)

In a number of countries and under certain circumstances 'fair use/fair dealing' laws permit the legal copying of copyright works for personal use purposes. However, the objective of DRM systems is to inhibit, restrict and reduce being able to make personal copies of digital works. This could be by way of encrypting content to prevent access to protected content, a watermark to inhibit copying or CD corruption systems to restrict a CD from operating in a computer drive.[1052]

DRM technologies perform the following tasks:

1. It encrypts digital content and restricts unauthorised access by users;

2. It can act as a control system for licensing digital content and set restrictions on a user's access and usage of the digital content; and

3. It can validate a user's identity to permit the user to access the various usage rights conferred under the licence.[1053]

DRM technology can operate to transfer usage licenses with the associated digital content to portable and other digital devices. DRM systems are proprietary to specific electrical goods and software manufacturers and to date no single standard or platform exists. DRM technology can also provide copyright owners with a way to minimise undesired uses of their works and maximise their profits in the process. For example, music companies can currently place restrictions on CDs and music files so they cannot be easily copied and can only be viewed in certain regions or countries.

On the other end of the scale, DRM's can require the user register a specific music file on their computer before playing it and then the DRM can demand that the user allows it access to monitor how and when the user plays the file, or with whom the user has shared the file. The DRM might even charge a small fee every time the user plays the music file or shares it. DRM

[1052] Hu, J., *"Lawsuit targets copy-protected CD's"*, CNET News.com, 7 September 2001, located at http://news.cnet.com/news/0-1005-200-7090886.html?tag=dd.ne.dtx.nl-sty.0 (accessed on 1 August 2008). See also Mariano, G., *"BMG tests copy-protection CD's"*, CNET News.com, 30 July 2001, located at http://news.cnet.com/news/0-1005-200-6719912.html?tag=rltdnws (accessed on 12 August 2008).
[1053] Lilla Montagnani, M., *"A New Interface between Copyright Law and Technology: How User-Generated Content will Shape the Future of Online Distribution"*, 26 Cardozo Arts & Ent. L.J. 719, 2008-2009, p.744.

can also limit the number of uses and even stop working after two or three days. Finally, DRM can also monitor the user's specific use of the music file and report those uses back to the company that originally supplied the music file for future marketing purposes.

7.1.3.1 Secure Digital Music Initiative (SDMI)

The SDMI was one of the first victims in the battle over digital music distribution. RIAA along with the Major labels announced the SDMI in late 1998. The purpose of the initiative was to secure the payment of royalties to the record companies from anyone playing digital sound recordings.[1054]

The SDMI was to take effect as a two stage process. The first stage was to implement technology to control the playback features for a new series of portable players. These devices would look for digital watermarks (contained in a sound recording or CD which governed the usage of the music) that would influence users to upgrade their devices to meet the conditions of SDMI's stage two. The second stage of SDMI was to prevent unauthorised MP3 formats from running on the new series of portable players.[1055]

Overconfident in the technology, the SDMI announced an *SDMI Challenge* on 6 September 2000 in their *Open Letter to the Digital Community*.[1056] The letter was an open invitation to crackers, hackers, academics and cryptologists requesting them to attempt to break their intended digital watermarking technology for a cash prize. Within a few days, academics from Princeton and Rice Universities unlocked the technology and also discovered a fatal flaw in the protection scheme. The discovery of the flaw in the protection scheme had a considerable impact on the SDMI because it meant that any device that utilised an algorithm based on the same proposition and reasoning could be expected to be cracked in time as well.[1057] As a result of the academics cracking the watermark scheme and publishing their results, SDMI became redundant.[1058]

[1054] Richards, B., op.cit., pp.444-445.
[1055] Armstrong, T., op.cit., p.62.
[1056] Harris, R., *"Whatever happened to SDMI?"*, Salon.com, 29 April 2002, located at http://archive.salon.com/tech/feature/2002/04/29/sdmi/print.html (accessed on 26 June 2008).
[1057] Ibid.
[1058] Ibid.

7.1.3.2 Windows Media

Windows Media Player is a content and multimedia player with built in DRM technology that is bundled into the Microsoft's Windows operating systems. The Windows Media Player utilises a number of DRM technologies and is built around encryption, distinctive markers and one-off licences which prevent end users from making copies and/or distributing it. The technology was very much a form of 'security by stealth' and nobody external to Microsoft was thought to be clever enough to comprehend it.[1059]

In October 2001 an anonymous person with the alias Beale Screamer forwarded a string of communications to the sci.crypt newsgroup. In his communications he published the solution to the DRM scheme used with Microsoft's WMA format and the source code to extract their DRM protection.

7.1.3.3 Liquid Audio and Real Networks

Liquid Audio was another DRM format hailed to be the saviour of the music industry and prevent widespread music distribution over the Internet. The technology was complex and was inevitably unpopular with end users. In 2002, Microsoft purchased the DRM patents from Liquid Audio.[1060]

Apart from Microsoft, Real Networks is the only other company that has a major slice of the market with its Internet multimedia platform. Microsoft and Real Networks collaborated to release a new protection scheme called Helix DRM. The Helix system was designed as a DRM wrapper and inside the wrapper it would bundle the MP3 format and the Real Networks Real Audio and Real Video formats.[1061]

After Real Networks attempted to push their Helix DRM on all device manufacturers only two devices adopted the technology[1062], Real Networks then developed Harmony which permitted the playing of music purchased through the RealPlayer Music Store to be played on Apple iPods and

[1059] James, D., *"Digital Rights Management & Music. A Barrier to Creativity?"*, Sound on Sound Magazine, August 2003, located at http://www.soundonsound.com/sos/aug03/articles/drm.htm (accessed on 31 August 2008).
[1060] James, D., op.cit.
[1061] Ibid.
[1062] The Creative Zen Xtra and the Sansa e200r are the only existing compliant devices.

Microsoft WMA DRM rigged players. Real Network's utilised a wrapper that translated the Helix DRM into the other intended DRM systems being Fairplay and Microsoft's WMA DRMs.

After Apple threatened litigation against Real Networks, Apple disabled Harmony in a series of firmware upgrades. The Apple upgrades prevented all Real Networks music to be played on an Apple iPod. The Harmony technology also never resurfaced as an option for Real Networks. Helix DRM is still currently being used by Real Networks in conjunction with its Rhapsody music store.

7.1.3.4 OpenMagicGate (Sony)

OpenMagicGate (OMG) is a SDMI compliant DRM system introduced by Sony. OMG was created to play sound files in the ATRAC3 format. The Sony SonicStage supporting software is able to convert MP3 and Wave formats to the OMG/ATRAC3 platform.[1063]

The supporting OMG Jukebox system operates by examining outgoing and incoming sound files to and from portable digital devices and maintaining only a single copy decoded to prevent copies being disseminated. With the combination of OMG and MagicGate, Sony's intention is to control the movement of sound files rather than allow them to be copied.[1064]

OpenMG contains four technological characteristics:

1. Validation tools to check consumer players and recording media;

2. Copy prevention tools to protect digital files (e.g. to inhibit illegal copying);

3. Tools for separating and governing digital files and its licence (e.g. usage rules); and

4. Digital rights management tools for digital files (e.g. usage rights to restrict the number of copies allowed).[1065]

The side effects of OMG have been problems associated by user's being prohibited from accessing their own audio recordings and also being prevented from transferring those files to the

[1063] See *"Sony Global OpenMG page"*, located at http://openmginfo.com/overview/tech.html (accessed on 22 August 2008).
[1064] Ibid.
[1065] Ibid.

user's computer. The OMG format experienced more controversy in 2005[1066], when Sony introduced the Extended Copy Protection (XCP) software to its OMG DRM package for CD's.[1067] The software was incorporated into some CDs distributed by Sony BMG which culminated in the "2005 Sony Rootkit" controversy.[1068]

In October 2005, Mark Russinovich, a security advisor, discovered the rootkit spyware application (software calculated to covertly install and cloak itself, whilst seizing and controlling the user's computer by sending information relating to burning and use of the disc drive activities back to Sony). Russinovich released the information on his blog which was later publicised by the media and other academics. The pressure of civil and criminal proceedings against Sony forced them to terminate use of the XCP system.[1069]

Despite the fact that the CDs that had the embedded XCP system were recalled by Sony, the software uninstaller was examined by two specialist security researchers. They revealed the component employed to uninstall the software actually exposed users to other security threats, including random code executions from any web site and made the user's systems vulnerable to hackers.[1070]

In summarising these events, it would appear that Sony made three fundamental errors by including the XCP technologies in their DRMs:

First, they did not inform their customers that the DRM contained a self installing application, thereby denying the consumer the choice of whether to play the DRM in their PC or not. Second, the XCP technologies had not been adequately tested for its security, and third upon removal of the application the ActiveX component in the uninstalling software further exposed users to security risks.

[1066] Geist, M., *"Legal Fallout from Sony's CD woes"*, BBC News, 3 January 2006, located at http://news.bbc.co.uk/2/hi/technology/4577536.stm (accessed on 23 March 2008).
[1067] Picker, R., *"Mistrust-Based Digital Rights Management"*, 5 J. On Telecomm. & High Tech. L. 47, 2006-2007, pp.57-60.
[1068] Rajkomar, B., *"Dealing With Casual Piracy: Limiting Distribution of Copyrighted Content with Digital Rights Management"*, 9 Vand. J. Ent. & Tech. L. 497, 2006-2007, p.500.
[1069] Adams, A., *"Introduction: Valid Protection or Abusive Control?"*, International Review of Law Computers and Technology, Vol. 20, No. 3, November 2006, pp.234-235.
[1070] Felton, E, *"Don't use Sony's web based XCP Uninstaller"*, Freedom to Tinker Blog, posted 14 November 2005, located at http://www.freedom-to-tinker.com/?p=926 (accessed on 23 February 2008); See also Cohen, J., op.cit., p.7.

Despite these issues, it is clear that Sony's intention was to use DRM technologies for the benefit of copyright owners without regard to their customer's use of and reaction to the technology.

7.1.3.5 FairPlay (Apple)

FairPlay is a DRM scheme invented by Apple Computer Inc. FairPlay is bundled into the QuickTime media software platform and is utilised by iPods, iTunes, and the iTunes jukebox software.[1071] Digital music purchased from the iTunes Music Store is programmed with the FairPlay DRM scheme. FairPlay encrypts digital sound files in the AAC format and prohibits playback of these files on unauthorised portable devices and computers.[1072] The QuickTime media software performs the actual decoding of the Fair Play protected files. The iTunes music store continues to be the most accepted system to purchase and play FairPlay protected files.

FairPlay's usage rights will permit the use of a protected file in the following manner:

(a) may be copied to any number of iPods;

(b) may be played on up to five PCs;

(c) may be copied to a CD any number of times;

(e) a playlist in iTunes may be copied to a CD seven times before the playlist must be altered.[1073]

FairPlay controls the decryption of the digital music file it does not affect control over the digital music file from being duplicated. A deliberate constraint imposed by the Fairplay DRM technology is that it restricts iTunes customers to playing their acquired music on Apple iPods. Purchased music from iTunes will not play on any other digital music player. Other DRM technologies and hardware manufacturers mentioned above have not reached the same heights or saturation point as Apple, even where their technology may be superior to Apple's model. Some manufacturers offer higher capacity players with bigger screens and their own proprietary DRM technology but have failed to attract a significant market share.

[1071] Armstrong, T., op.cit., p.63.
[1072] Ibid.
[1073] Ibid.

The Apple iPod/iTunes/Fair Play model remains the market leader and because it was the first technological model to be marketed successfully to consumers. The Apple distribution/retail model combined with its small light weight size player was its big selling points.

7.1.3.6 CD Corruption Systems

A number of DRM systems were created to stem the practice of 'ripping' uncompressed CD soundtracks and encoding them to MP3s.[1074] Examples of these DRM technologies include Cactus 200, Key2Audio and MediaCloQ platforms. On numerous occasions these technologies were never disclosed to consumers or on the packaging of the CD.[1075]

Computer CD-ROM drives are not the same as a conventional CD players, These DRM systems target the computer CD-ROM drives by placing a corruption to the outside track of the CD to cause the CD-ROM drive to prevent playback or think the disc is defective and reject it, or in some cases lock-up the drive completely. [1076] Some CD corruption systems can even make the computer CD-ROM drive playback a low quality version of the soundtrack, in substitution for the high quality uncompressed CD soundtrack.[1077]

Some examples of protected CDs included Michael Jackson's "You Rock My World", Robbie Williams CD "Escapology", and Charlie Prides' "A Tribute to Jim Reeves". Regardless of CD protection systems being in place these CDs still appeared on P2P networks the very next day after their release.[1078] Despite the efforts of these DRM schemes to prevent copying of soundtracks from CDs, it is still possible to rip the sound tracks by connecting a computer's soundcard to either the digital or analogue outputs from a CD player. One CD protection scheme can even be defeated with a felt-tip pen drawn carefully over a certain track of the CD.

[1074] Albright, J., "*The next step in stopping swapping: copyproof CD's"*, The National Law Journal, October 22, 2001.
[1075] Dearne, K., *"Copy-proof CD is 'Self-destructive': ACA"*, The Australian, 19 November 2002.
[1076] Borland, J., *"Copy-protected CDs quietly slip into stores"*, CNET News.com, 18 July 2001, located at http://news.cnet.com/news/0-1005-200-6604222.html (accessed on 7 October 2008).
[1077] Wardill, S., *"New music to burn CD pirates"*, The Courier Mail, 21 November, 2002.
[1078] Mariano, G., *"Label releases copy-protected CD with Pride"*, CNET News.com, 14 May 2001, located at http://news.cnet.com/news/0-1005-200-5924584.html?tag=rltdnws (accessed on 30 August 2008) and also Mariano, G., *"Copy-protected CD's wounded Pride"*, CNET News.com, 15 May 2001, located at http://news.cnet.com/news/0-1005-200-5936091.html?tag=rltdnws (accessed on 30 August 2008).

The assumption that corrupting the CD standard would safeguard the Major labels revenues is still to be confirmed. Consumers are changing the way they listen to music, and consumers want to play their legitimately purchased CD's on their computer without being forced to have to rip them to lower fidelity copies.[1079] The impact of CD corruption systems from an interoperability perspective means the consumer may be forced to use P2P networks if they cannot be certain that a legitimately purchased CD would operate with their choice of playback device.[1080]

7.1.3.7 TCPA and Palladium

Although it is difficult to make digital sound files impregnable from copying, and CD corruption systems offer inadequate protection from copying too, the next advancement in DRM technology systems was incorporating it in computer hardware. DRM technology in hardware was first proposed by Intel. Intel is the leading global manufacturer of computer chips. Intel planned to incorporate a distinctive identification number for all Pentium III chips manufactured with a view to regulate the use of unlicensed software. After complaints from its customers based on privacy concerns, Intel withdrew the feature.[1081]

Cooperation between microchip hardware and operating software manufacturers is required for hardware oriented DRM to operate successfully. Microsoft has for some time now implemented DRM into their Windows operating systems as validation tools to check a user's software is genuine. Microsoft does this stealthily through their automatic updates and there is not much that a user can do to prevent it.[1082] The Trusted Computing Platform Alliance ("TCPA")[1083] in association with Microsoft's Palladium scheme is an organisation founded by Intel, Microsoft, Compaq/HP and IBM.

The TCPA's goal is to integrate a microprocessor chip in every computer which will act to identify and provide information relating to each computer including the music software being used by that computer. The TCPA does not intend to provide a software based DRM system,

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[1079] Borland, J., *"Is copy protection dead on arrival?"*, CNET News.com, 7 August 2001, located at http://news.cnet.com/news/0-1005-200-6774448.html?tag=rltdnws (accessed on 3 November 2008).
[1080] James, D., op.cit.
[1081] Ibid.
[1082] Ibid.
[1083] For definition of "TCPA" see Glossary of Terms at p.25 of this thesis.

rather they are considering it for hardware. The TCPA's major concerns relate to unlicensed software use.[1084]

The Palladium scheme released by Microsoft has been rolling out systematically for some time with elements already bundled with Windows XP and the second instalment will be integrated with XP Service Packs 1-3. A further instalment arrived in 'VISTA' and Windows 7 operating systems.[1085]

In the future, protected music content may only be accessed using TCPA compliant hardware and will not operate specific tasks, which would include making digital music files.

The protection of the Palladium system is conditional upon Microsoft maintaining its domination over the market to ensure purchasers are required to purchase up to date hardware and software. The biggest drawback for TCPA and Palladium is its dependence on consumers continuing to purchase the Windows operating system and Intel or Advanced Micro Devices ("AMD")[1086] chips for their computers. A further running consideration for the manufacturers of these systems should be the consumer's reaction to these systems. If these systems report back over the network to the manufacturer of what the user is doing at any one time, then the consumer will not purchase these systems in fear that it is a breach of their privacy. The consumer may revolt and seek out other hardware manufacturers that do not provide these micro processing chips.

7.1.3.8 ISRC

The International Standard Recording Code ("ISRC")[1087] was created by ISO (International Organisation for Standardisation) to ascertain sound recordings and audio-visual recordings for royalty payments.[1088] ISO released its own International standard for the ISRC known as International Standard ISO 3901. The recording industry has adopted the standard for categorisation and identification which is not too dissimilar to the issue of an ISBN for library

[1084] Ibid.
[1085] Ibid.
[1086] See Glossary of Terms at p.13 of this thesis.
[1087] For definition of "ISRC" see Glossary of Terms at p.21 of this thesis.
[1088] see IFPI website at http://www.ifpi.org/isrc/ (accessed on 12 May 2008).

books. All sound recordings are allocated a distinctive ISRC number as a permanent identifier which can be permanently encoded into the music as its digital fingerprint.[1089]

The ISRC is fixed to the soundtrack and not the medium carrying the soundtrack. This standard has recently been adopted by most major music labels and music industry organisations worldwide as a DRM technology.[1090]

7.1.4 Need for Standardisation and Interoperability

From a consumer's perspective, standardisation of DRM systems is essential. In order to increase consumer confidence and business efficiencies the interconnection and interoperability of DRM systems are necessary.

The rivalry among the manufacturers of incompatible DRM schemes and devices can drive development to provide better quality and inspire innovation to lessen the costs of DRM systems to the consumer.[1091] Mostly though, the release of various DRM technologies and codecs has resulted in incompatibility.[1092] The distribution of digital music has stimulated growth in ISPs, online retail services, and portable digital devices but has also caused the development of numerous proprietary DRM systems. In actual fact DRM schemes operate to assist digital music distribution and at the same time restrain music piracy. Yet, DRM schemes also raise problems regarding incompatibility, openness and incidental or understated usage rights. In actual fact, numerous incompatible proprietary codecs, DRM systems and portable players may well stifle the demand for digital music.[1093]

The Major labels may now be in favour of easier access to legitimate downloads of digital music by users and the licensing of their catalogues to legitimate content providers. Prior to 2004 the outlook was not as harmonious between the music industry and technology providers (software, DRM technology providers and ISPs) because of the music industry's inherent dislike of P2P systems and the pirating of their content.

[1089] Ibid.
[1090] Ibid.
[1091] Hugenholtz, B., Guibalt, L., and Van Geffen, S., *"The Future of Levies in a Digital Environment"*, Amsterdam , Institute for Information Law, March 2003, p.9, located at http://www.ivir.nl/publications/other/DRM&levies-report.pdf (accessed on 6 June 2003).
[1092] Wunsch-Vincent, S., and Vickery, G., op.cit., p.86.
[1093] Ibid.

Today, some of the Major labels continue to refuse digital licensing of their catalogues to P2P services that do not incorporate DRM technologies, because they recognise that legitimate P2P models incorporating DRM technology are opportunities for them to increase their revenues.[1094]

The increase of incompatible proprietary codecs and DRM platforms were partly to blame for the rejection by the Major labels and online music services to readily licence or make available their content and technologies to third parties.[1095]

Ironically, the aggravation of incompatible systems convinced the French online retailing arm of Virgin Megastore to initiate legal proceedings against Apple, for unfair competition. The proceedings commenced because Apple refused to grant licenses to their FairPlay DRM necessary to allow digital sound files purchased from other online retailers play on the iPod. The Court dismissed Virgin's application.[1096]

Numerous stakeholders have requested Apple to open up its DRM to permit other legitimate purchased music can be played on the iPod. Apple refused to open up their digital rights technology as this was key to protecting the Apple model and its iPod player market.

Even the efforts of Real Networks to launch its Harmony software that purposely bypassed the FairPlay DRM so that digital music acquired from Real Networks could be played back on the iPod, were stopped by Apple in court.[1097]

In August 2006, France passed legislation in order to implement the European Union Copyright Directive (EUCD) being the "Law on Copyright and Neighbouring Rights in the Information Society" known as Dadvsi.[1098] Under this law, individuals could petition the government to compel disclosure of TPM source code in order to permit product interoperability.

[1094] Ibid, p.53.
[1095] Ibid.
[1096] Fried, I., *"Virgin: Apple's not playing fair with iPod"*, CNET news.com, 2004, located at http://www.news.com.com/2100-1027-5298642.html (accessed on 29 November 2008).
[1097] Bernhoff, J., *"Commentary: Getting on the same sheet of music, Forrester Research"*, CNET News, 2004, located at www.news.com.com/Commentary:+Getting+on+the+same+sheet+of+music/2030-1069_3-5283947.html?tag=st.rn (accessed on 16 August 2008).
[1098] Sobel, D., *"A Bite Out of Apple - iTunes, Interoperability, and France's Dadvsi Law"*, 22 Berkeley Tech. L.J. 267, 2007, p.267.

On 24 January 2007, the Norwegian Ombudsman ruled that iTunes' DRM was illegal. The Norwegian Consumer Council had previously lodged a complaint on behalf of Norwegian consumers and gave Apple three options: licensing FairPlay to competing manufacturers, developing open-source platforms with other companies, or abandoning DRM.[1099] In response to the European legal action against FairPlay, Steve Jobs CEO of Apple issued a statement reasoning that the blame for iTunes' use of DRM was due to the record labels.[1100] Steve Jobs argued that the Major labels from whom Apple licenses the majority of its music require strong DRM to prevent illegal copying. Instead, Steve Jobs called on consumers to lobby the Major labels for the removal of DRM.[1101]

7.1.5 Making Platforms Compliant with Technical Measures/Integration

The copyright owners of digital content ideally prefer technological protection measures be accessible across every viable format and platform.[1102] To accomplish this, a variety of enterprising schemes by the industry players have been released.[1103] Sony and Apple are the closest to achieving the perfect vertical integration of their business. Apple does not possess its own catalogue of music but rather has obtained licenses from the Major labels for their content offerings and then encode the content in their proprietary AAC format. Apple also adopts their own proprietary FairPlay DRM platform, own their iTunes branded online music store and their own iPod music players.[1104] In comparison, Sony owns its own catalogue of music and adopts the ATRAC3 codec. Sony also owns its SonicStage media software and online store and utilises the Sony Open Magic Gate DRM platform and manufactures its own range of Sony portable digital music players.[1105]

Two other companies that continue to be major players in the digital music arena are Microsoft and Real Networks. Microsoft and Real Networks are better known or their positioning and support in the software and Internet industries. Microsoft owns the proprietary WMA codec used to play certain digital files with the Windows Media Player. Microsoft also has its own

[1099] Ibid, pp.280-281.
[1100] Jobs, S., *"Thoughts on Music"*, Apple.com, 6 February 2007, located at http://www.apple.com/hotnews/thoughtsonmusic (accessed on 5 February 2008).
[1101] Ibid.
[1102] Richards, B., op.cit., p.445.
[1103] Ibid.
[1104] Wunsch-Vincent, S., and Vickery, G., op.cit., p.62
[1105] Ibid.

Windows Media DRM scheme and MSN online music store. Microsoft also has elaborate alliances with numerous device manufacturers and has recently released its own proprietary Zunes device and music store model.[1106]

For other online music retailers, to participate within the digital distribution model is often the outcome of forging numerous relationships with suppliers. These retailers continue to require technology suppliers and music service suppliers to assist in the operations of their online music stores. Wal-Mart for example is a retailer that is supplied music content, technology and DRM standards all from third party suppliers.[1107]

Due to incompatibility issues between providers, a purchaser is not inclined to change music services from that which they are accustomed too on the basis that the music they purchase may not play on other devices or services (e.g. Apple's popular iPod/iTunes model with consumers). An issue that will face consumers and intermediary businesses in the digital distribution model is whether limited usage rights (especially the freedom to play content on various devices) will continue to be attractive to the user in the future.[1108]

For optimal market growth in the digital environment, it is vital that DRM technology such as copy protection technologies (encryption, watermarking, usage metering and monitoring) and proper remuneration systems are developed and adopted broadly by all participants and stakeholders involved in the legitimate digital delivery of music to the public with a view to make these systems and platforms as interoperable as possible.

7.1.6 New DRM Free Models Emerge

Previously, the approach of online music stores was based around trying to secure customers to their service so that they could only use their proprietary codecs, DRM schemes and specific playing devices. This would ensure the customer was tied to their service because trying a new service is too risky due to the interoperability with other services and technologies. However the model now appears to be changing once again in an effort to provide fully interoperable models to consumers. One latest model which has emerged is providing premium services which are

[1106] Ibid.
[1107] Cummings, J., *"Wal-Mart's music download service goes live"*, Publish, 31 March 2004, located at http://www.publish.com/c/a/Web-Design/WalMarts-music-download-service-goes-live/ (accessed on 24 May 2008).
[1108] Wunsch-Vincent, S., and Vickery, G., op.cit, p.53.

DRM free. Another model which appears to be making some traction is the release of advertising driven free download models. These models are discussed briefly below and in greater detail in sections 7.1.5.8.1 and 7.1.5.8.2.

7.1.6.1 DRM Free Music

In an astonishing recent announcement by EMI and Apple on 2 April 2007, EMI's catalogue has become available DRM-free via iTunes as a premium service upon the consumer paying extra US30 cents above the normal US99 cents per download.[1109] EMI's CEO, Eric Nicoli, announced its release of premium DRM free music downloads was,

> *"in response to consumer demand for high fidelity digital music for use on home music systems, mobile phones and digital music players …and to address the lack of interoperability which is frustrating for many music fans."*[1110]

This is a considerable shift away from Apple's strict control over its DRM controlled downloads. Following on from EMI and Apple's lead in offering DRM free music downloads from their services, Sony BMG, Universal, Warners, Wal-Mart, Amazon, Rhapsody, Puretracks, LimeWire and Verizon announced very shortly afterwards their intentions to also open up their music for download DRM free.

7.1.6.2 Advertising driven free download model

The advertising driven free download model operates like any P2P file-sharing program. Some of these services will be offering legitimate DRM free music on certain terms and on the basis the user is willing to view advertising which is targeted to the user's profile, in a not too dissimilar way that Google and Yahoo works for their search terms. The services intend to make their money from selling advertising and revenue share the advertising sales to compensate the Major labels/artists that make their music available to the site for free download.

[1109] Roth, M., *"Entering the DRM-Free Zone: An Intellectual Property and Antitrust Analysis of the Online Music Industry"*, 18 Fordham Intell. Prop. Media & Ent. L.J. 515, 2007-2008, p.515.

[1110] EMI Group Limited, *"EMI Music launches DRM-free superior sound quality downloads across its entire digital repertoire. Apple's iTunes store to be the first online music store to sell EMI's new downloads*", Press Release, London, 2 April 2007, located at http://www.emigroup.com/Press/2007/press18.htm (accessed on 7 August 2007).

In summary, it is essential to ensure different technological schemes and platforms conform and are compliant with technical processes. The success of technical processes crucially relies on the existence of a 'protected environment' to operate within. Currently, schemes based on technical processes will only operate within the framework of the platform which conforms to that technology.[1111] This seems to be at present the current understanding of the Major labels, hardware and software manufacturers of these technological platforms. What does seem to be most popular with consumers are interoperable technologies, platforms and devices. For example, the highly profitable Apple iPod/iTunes integrated model which is DRM dependant and the emerging business models of providing DRM free premium services and advertising driven free download models.

Copyright law was initially developed in response to technological advancements in the mass production of intellectual and creative work. The central question of copyright law is how best to strike a balance between the needs of users for reasonable access and use of copyrighted works, and the needs of creators to be protected from unjust appropriation. With the assistance of Copyright law to protect TPM's and the use of DRM's to prevent communications and to lock down knowledge in its digital form with a view to maximising copyright owners' ability to control and to profit from their copyrighted works, the incorporation of DRM's skew the balance in copyright owners' favour. Copyright users have not accepted DRM's favourably due to their nature to lock up and track content and yet, it will be the consumer and the market that will determine DRM's success or failure. The next chapter will review the different legitimate commercial business models available and consumer's reaction to them.

[1111] Hugenholtz, B., Guibalt, L., and Van Geffen, S., op.cit., p.8.

CHAPTER 8 – RECENT DEVELOPMENTS IN INDUSTRY AND TECHNOLOGY

8.1 THE NEXT ROUND

In addressing the hypothesis of this thesis an important issue to determine whether a balance exists in Australian copyright law between Copyright owners and copyright users, is the level of access and the basis upon which these copyright works are available to the public. The purpose of this chapter is to give a practical account of the developments of digital music distribution on the Internet via the business models that emerged, failed and were ultimately acceptable and the consumers determinative factors in acceptance or rejection of these business models.

In this chapter, upcoming technologies, pricing models and different distribution models are assessed. This assessment is important in light of the analysis of the current copyright law provided in Chapter 6 of this thesis. The music industry is fighting two battles at the same time. They are deploying copyright law against illegal digital distribution and P2P software providers whilst at the same time having to develop new commercial and technological models to compete with other legitimate online retailers. It is interesting to note that a number of the Major labels have attempted to establish their own legitimate online stores and these have generally failed due to lack of content availability, price and restrictive DRMs. Many independent retailers have had more success with their digital distribution models because they are able to offer multi-label content to their customers.

A number of advanced technologies continue to enter the market. A new round of development from both technology companies and the music industry has evolved to include and accept legitimate and authorised methods of digitally distributing music in the marketplace. Both industry and technology have embraced digital audio file technology due to the popularity of digital music and they are willing to continue its development and propagation to consumers throughout the world.

8.1.1 New Technologies

8.1.1.1 Mobile Phones

Launched on the 31 August 2000, Samsung released the first mobile phone to the market capable of playing MP3 music files. The mobile phone contained a 32-megabyte (MB) flash memory card to store music and data files.[1112]

Since 31 August 2000, all the major mobile phone manufacturers have followed Samsung's lead. The MP3 player has become a standard feature in all the latest newly released mobile phones to the market.

One of the most successful launches of a new mobile phone as a converged device with an MP3 player and access to a music store was Apple's iPhone.[1113] On 29 June, 2007, the first generation iPhone was released for sale in the United States. These first generation iPhones were never released in Australia. In the first 30 hours of Apple's launch, Apple sold 270,000 first generation iPhones.[1114] According to the Entertainment Software Association, in 2007, Apple sold 8 million iPhones in the U.S.[1115]

On 11 July, 2008, Apple launched its next version of the iPhone called the Apple iPhone 3G and this was released in twenty-two countries simultaneously with Australia being one of them. In its first 3 days of sale, Apple had sold 1 million iPhone 3Gs.[1116] Sales are expected to be two times higher and eclipse the first generation iPhone.[1117] Furthermore, the release of the new iPhone 3G may end up cannibalising Apple's iPod market based on the latest iPhone's price.[1118]

[1112] Lim. L., *"Samsung launched the World's first MP3 mobile phone"*, Mobile.com.au, 6 September 2000, located at http://www.imobile.com.au/Whatsnew/default.asp?ID=whatsep0001(accessed on 4 September 2008).
[1113] For further information on "iPhones" see Glossary of Terms at p.21 of this thesis.
[1114] Apple Inc. 3rd Quarter 2007 Unaudited Summary Data, 25 July 2007, located at http://images.apple.com/pr/pdf/q307data_sum.pdf (accessed on 8 August 2008).
[1115] Brightman, J., *"PC Game Sales Brings US Industry to $18.85 Billion in '07"*, GameDaily, 24 January 2008, located at http://www.gamedaily.com/articles/news/pc-game-sales-bring-us-industry-to-1885-billion-in-07/ (accessed on 17 March 2008).
[1116] Apple Press Release, *"Apple Sells One Million iPhone 3Gs in First Weekend"*, Apple Inc., 14 July 2008, located at http://www.apple.com/pr/library/2008/07/14iphone.html (accessed on 8 August 2008).
[1117] Gamet, J., *"Analyst: Apple iPhone Sales to Double in 2009"*, The Mac Observer, 18 June 2008, located at http://www.macobserver.com/stockwatch/2008/06/18.1.shtml (accessed on 13 August 2008).
[1118] Jacques, R., *"Apple iPhone could Cannabalise iPod Sales"*, ITNews, 19 January 2007, located at http://www.itnews.com.au/news/44596,apple-iphone-could-cannibalise-ipod-sales.aspx (accessed on 22 February 2008).

In 2003 and 2004 the digital music download market for mobile phones increased quickly, with the recording industry as the beneficiary collecting licensing revenues from this segment of the market. IFPI estimated that for the year 2008 world-wide mobile phone music downloads accounted for nearly half of the digital music revenues of US$2.9 billion at US$1.45 billion. In 2007, Japanese mobile phone music revenues from downloads totalled US$680 million being the equivalent to 91% of the total digital music revenues for that year.[1119]

According to IFPI's Digital Music Report 2006, "the record companies have moved quickly into this new market, making hundreds of business deals with operators, aggregators and handset makers."[1120] In 2005, the key launches for mobile music were:

- EMI partnered with Europe's T-Mobile to release Robbie Williams' new album to T-Mobile customers by offering exclusive content such as backstage tours, VIP tickets and hospitality, after show party tickets, live-streaming of concerts and full-track downloads.[1121]

- SFR a French operator increased its catalogue to over 400,000 mobile music tracks. SFR launched Label Studio TV with Universal to establish Europe's first interactive mobile TV station. Label Studio TV offers users a selection of nine channels of content ranging from video footage, clips, interviews, interactive games and blogging giving their users full programming control to select what they like.[1122]

- Vodafone increased its available library of full track downloads to 600,000 tracks in 21 territories by agreeing with Universal to include its licensed catalogue of music. Sprint offers a catalogue of 250,000 songs and released the first full track dual download service in the US.[1123]

[1119] IFPI's *Digital Music Report 2008,* p.9, located at http://www.ifpi.org/content/library/dmr2008.pdf (accessed on 29 December 2008); See also Music Media Watch, *"RIAJ releases 2007 Figures, Mobile still going Strong"*, Japan Inc. Magazine, 17 April 2008, located at http://www.japaninc.com/mmw120 (accessed on 17 December 2008).
[1120] Ibid.
[1121] Ibid, p.11.
[1122] Ibid.
[1123] Ibid.

- In 2004 KDDI, a Japanese operator, launched its full track download service. In December 2005, KDDI was reported to have over 110,000 songs in its catalogue and eclipsed the 30 million sales mark in December 2005.[1124]

- MTV joined with SonyBMG to launch MTV 5 Star. MTV 5 Star provided the user with full track streams prior to their release, exclusive 30 minute shows, and a series of mobile episodes ("mobisodes").[1125]

8.1.1.2 Apple iPod

Apple Computers designed and marketed a new portable audio player called the iPod. An Apple iPod has a built-in hard drive to permit a larger capacity to store music than other regular portable music devices which depend upon flash card memory. When the iPod is connected to a computer via a fire wire cable it can also act as an external hard drive."[1126]

The Apple iPods main advantages over other regular portable music devices are that they are small in size and simple to use having designed a very simple user interface around a central mechanical scroll wheel. As of May 2005, the iPod continues to dominate the digital music market in the US. The Apple iPod has captured over 90% of the hard drive-based player market and more than 58% of the market for all portable MP3 players.[1127]

8.1.1.3 Microsoft Zunes

In order to compete with Apple Computer's worldwide popularity in its iPod/iTunes model, Microsoft in September 2006 released its Zune MP3 player and online store. The Zune brand includes a 30-gigabyte MP3 player which connects automatically to the online Zune music store.[1128] The Zune MP3 player includes wireless technology, a built in FM tuner radio and a 7.6cm screen designed for displaying music, pictures and video.[1129] The Zune media player

[1124] Ibid.
[1125] Ibid.
[1126] See Apple iPod's website at http://www.apple.com/ipod/ (accessed on 30 December 2008).
[1127] Acohido, B., *"Radio to the MP3 degree: Podcasting"*, USATODAY.com, 9 February 2005, located at http://www.usatoday.com/money/media/2005-02-09-podcasting-usat-money-cover_x.htm (accessed on 24 May 2008); See also Gibson, B., *"Apple: Shuffle Grabs 58 Percent of Flash Player Market"*, Mac News World, 4 May 2005, located at http://www.macnewsworld.com/story/42856.html (accessed on 6 May 2005).
[1128] Miller, P., *"Microsoft launches the Zune!"*, Engadget.com, 14 September 2006, located at http://www.engadget.com/2006/09/14/microsoft-launches-the-zune/ (accessed on 30 September 2008).
[1129] Ibid.

features wireless connectivity to other Zune devices so Zune owners can share music between each other. Where songs are shared between Zune owners these songs are erased automatically from the borrower's device after being played three times or three days whichever occurs earlier.[1130] Prior to 2008, Zune devices were not able to connect directly to the Internet. In 2008 with Microsoft's Zune Software release of 3.0, Zune players can now connect directly to the Internet and connect wirelessly to computers using Microsoft Vista, XP and the new Microsoft 7 operating system which is due to be released shortly.[1131]

8.1.1.4 Software

Many software applications now include MP3 players with CD burning capabilities. For example, Nero, Windows XP, Windows VISTA and Windows 7 (the latest desktop version of the Windows operating system from Microsoft due for release soon) contain a digital music player and CD burning capabilities as part of its Media Player component.[1132]

8.1.1.5 PDA Devices

The first Personal Digital Assistant ("PDA")[1133] device released to the market was the Palm Pilot. Originally the device was used as a personal organiser and contained features such as an appointment book, calendar, address book and a to-do list. The Palm Pilot was the first to introduce handwriting recognition to a mobile device pioneering the way data could be entered without a keyboard into a small mobile device.[1134]

As the Palm developed, it got smaller in size, had a faster processing speed and became more efficient. When Palm's originators left the company, another competitive product called Handspring entered the market. Handspring utilised the same Palm operating system but included an expansion slot to its handheld devices. This was revolutionary at the time because adding an expansion slot meant that for the first time mobile devices had the capacity to add new features to these handheld devices such as memory cards, mobile phones, MP3 players, cameras,

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[1130] Ibid.
[1131] See Microsoft's Zune website located at http://www.zune.net/en-US/support/default.htm.
[1132] Wilcox, J., *"Microsoft changes its tune on MP3 ripping"*, CNET News.com, 14 July 2001, located at http://news.cnet.com/news/0-1003-200-6567844.html (accessed on 5 February 2008).
[1133] For definition of "PDA" see Glossary of Terms at p.23 of this thesis.
[1134] Kelly, T., *"Handheld Technology Today and Tomorrow – A Look at PDAs"*, Car Audio and Electronics, located at http://www.caraudiomag.com/specialfeatures/0204cae_handheld_technology/index.html (accessed on 3 October 2004).

GPS and other software applications.[1135] Microsoft introduced a new operating system to rival Palm's operating system and it was called Windows CE which is compatible with the Windows format for the PC.[1136]

Now an extensive list of PDA manufacturers have entered the competitive PDA market including Palm, Handspring, Compaq, Sony, Hewlett Packard, Blackberry and Casio. Some of the PDA manufacturers also include mobile phone capabilities providing a convergence of the PDA device and the mobile phone. Again, it is now unusual not to have an MP3 player included as a standard feature in these devices.[1137]

8.1.1.6 Portable MP3 players

The first MP3 Player to have significant impact on consumers was the Rio PMP300 by Diamond Multimedia. In 1998, Diamond Multimedia and the Rio device drew the attention and focus of the major record labels.[1138] The music industry attempted to prevent the company from selling and distributing the player. Diamond was successful in its court action.[1139] Diamond and Rio subsequently went on to create and exploit the portable MP3 player market.

There are several types of MP3 Players:

- CD playing devices. Often, they can be used to play both audio CD's and homemade data CDs containing MP3 file formats and other digital audio files.[1140]

- Minidisk playing devices. Minidiscs are a smaller version of a CD of about 3 inches in diameter.[1141] These disc formats have not proven to be popular.

- Solid state devices such as Memory cards or USB flash drives that can hold digital audio files. These devices are generally low-storage devices and do not have moving parts;[1142] and

[1135] Ibid.
[1136] Freudenrich, C., and Carmack, C., *"How PDA's work"*, located at http://electronics.howstuffworks.com/pda1.htm (accessed on 9 October 2008).
[1137] Kelly, T., op.cit.
[1138] See history of MP3 players at http://www.historicaltextarchive.com/s/mp3-players.php (accessed on 29 January 2006).
[1139] *RIAA v. Diamond Multimedia Systems* 29 F. Supp. 2d 624 (C.D. Cal. 1998); 180 F.3d 1072 (Ninth Circuit 1999).
[1140] Giuffre, M., *"What are the Different Types of MP3 Players?"*, Wisegeek, 2005, located at http://www.wisegeek.com/what-are-the-different-types-of-mp3-players.htm (accessed on 8 December 2008).
[1141] Ibid.

- Portable devices that read digital audio files from a hard drive or connect directly to the Internet. These players have higher capacities and can store an entire music collection (i.e. iPod and Zunes players).[1143]

Just as with PDA manufacturers, the list of MP3 portable manufacturers are extensive with Diamond, Apple, Microsoft, Hewlett Packard, Dell, Sony, Creative Labs and Samsung well established and others joining the market all the time.

8.1.1.7 Car Radio MP3 players

The first company to market an in-dash MP3 player was Empeg Ltd.[1144] Well-known car audio manufacturer Kenwood rushed to market with its in-dash "eXcelon".[1145] Today most car audio manufacturers have working MP3 in dash car units. Some of the major manufacturers include, Kenwood, Aiwa, Sony, Alpine, Clarion, Harmon Kardon and Bose.

8.1.1.8 New MP4 technology

MPEG-4 is touted as the next-generation multimedia standard. MPEG-4 can deliver over a wide range of bandwidths a very high quality audio and video stream.

MPEG-4 utilises at its core the Advanced Audio Coding (AAC). AAC is a more efficient compression technology than MP3 and supplies near CD quality sound.[1146] The MPEG group developed AAC and was a collaborative effort by Dolby, Fraunhofer Institute, AT&T, Sony, and Nokia.[1147] The AAC codec is currently being used by Apple as a proprietary format for their iPod device.

Although the MP3 format remains popular, MP3 compression technology is now over fifteen years old. During that period, advanced development in perceptual audio coding and compression technology were achieved.[1148] The AAC format delivers higher quality sound and

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[1142] Ibid.
[1143] Ibid.
[1144] See Empeg's website, located at http://www.empeg.com/ (accessed on 23 March 2008).
[1145] Black, K., *"S3 Buys MP3 Car Player Maker empeg - Stay Tuned"*, Internetnews.com, 7 November 2000, located at http://www.internetnews.com/bus-news/article.php/505441 (accessed on 22 March 2008).
[1146] See http://www.m4if.org/mpeg4/
[1147] Ibid.
[1148] See http://www.apple.com/mpeg4/

fidelity at a lower compression ratio than MP3s. Comparing the quality between the audio formats of MP3 and AAC, AAC should replace MP3 as the new Internet audio standard.[1149]

Further developments to enhance MPEG standards continue with the development of MPEG7 and MPEG21 which are currently undergoing testing.[1150]

8.1.2 Changes in consumer habits - embracing legitimate distribution models

Since 2003 legal online services have been spreading quickly across the globe. Competition is rising as legitimate services such as Zunes, iTunes, Napster 2.0 (a legitimate service now owned by Roxio)[1151] and Rhapsody, as well as numerous other retailers, ISPs and record companies, strive to gain market share in a new online market. Accessibility to legally licensed music online from a mass of websites has increased exponentially from what was an original total catalogue of 220,000 tracks in 2003 available online to now over 2 million tracks spread across approximately 335 legitimate providers.[1152]

A vital part of the music industry's online strategy to increase public awareness of the legal issues surrounding online music distribution, is now much higher internationally than it was in 2003, mainly due to the music industry's 'shock and awe' tactics where individual file swappers were being pursued. The public is becoming much more aware that unauthorised file-swapping is illegal.[1153]

In 2005, the music industry due to its uncompromising stance against unauthorised P2P websites could for the first time pin point a significant movement of consumers from unauthorised free services to legitimate services. According to IFPI's *Digital Music Report 2008*, legitimate sales of music from the internet and mobile phones proliferated generating sales for record companies of US$2.9 billion in 2007 (up from US$380 million in 2004).[1154] According to that Report, legitimate purchases are now as popular as unauthorised P2P use in both the UK and Germany.

[1149] Ibid.
[1150] Ibid.
[1151] The Examiner, op.cit.
[1152] IFPI's *Online Music Report 2004*, p.1, located at http://www.ifpi.org/content/library/digital-music-report-2004.pdf (accessed on 21 April 2008) and IFPI's *Digital Music Report 2006*, p.1, located at http://www.ifpi.org/content/library/digital-music-report-2006.pdf (accessed on 29 December 2008).
[1153] IFPI's *Online Music Report 2004*, op.cit., p.1.
[1154] IFPI's *Digital Music Report 2008*, p.4, located at http://www.ifpi.org/content/library/dmr2008.pdf (accessed on 29 December 2008).

What was reported is that legitimate purchases now exceed illegal file sharing in the two largest European markets. Both countries recorded approximately 5% of regular legitimate purchasers were being made compared to approximately 4% of regular illegal file-sharing activity.[1155]

Recent IFPI surveys in the US, suggest the gap between unauthorised P2P usage and legal purchases online are reducing.[1156]

> *"Only 22% of online music buyers are also file sharers. While this shows that the industry is successfully attracting new users straight to legal services, it also shows that shifting consumers from unauthorised to legal services will take more time. One in every four illegal file sharers is willing to move to legal services [with] some 25% [of people surveyed said] they would pay to download legally. The challenge for the music industry is to shift the others."*[1157]

In 2003 online legitimate music services broke through to consumers because "record companies expanded their licensing agreements across a wide variety of online retailers, offered consumers greater flexibility of track usage, began licensing the catalogue of major international acts and shortened the gap between off-line and online releases."[1158] In the US and Europe, the Major and independent record companies have now licensed their catalogue of millions of tracks for legitimate download to consumers. By way of illustration in April 2003 EMI announced that it would make available for online sale its catalogue of approximately 140,000 tracks from its 3,000 EMI artists.[1159]

In the US, Streamwaves launched in 1999 to be one of the first to offer a streaming subscription service.[1160] For the first time retailers in Europe were able to offer legitimate services when OD2, the company founded by singer Peter Gabriel, launched its WebAudioNet platform in

[1155] Ibid., p.15.
[1156] Ibid.
[1157] Ibid.
[1158] Warner, B., op.cit.
[1159] Ibid, see also Waters, D., *"Europe's online music plans"*, BBC News, 29 October 2003, located at http://news.bbc.co.uk/go/pr/fr/-/1/hi/entertainment/music/3217671.stm (accessed on 1 September 2008).
[1160] Ibid.

2001.[1161] My Coke Music provided by Coca-Cola is one of these online services powered by the WebAudioNet platform.[1162] Other services include HMV and Virgin.[1163]

Many more services followed from there. The rebirth of Napster 2.0 by Roxio Inc. (a company that has its origins in MP3 and CD copying software) as a paid-for service is a brand name that has global appeal.[1164] MTV and Starbucks have also released their own legitimate online music services.[1165] At the end of 2001 in the US, Pressplay, Rhapsody and MusicNet were launched and by the end of 2002 contained content licensed by all five Majors.[1166] In 2007, IFPI estimates that there are now over 500 legitimate music services worldwide and 6 million individual digital songs are available for download.[1167]

In October 2008 a new legitimate advertising driven P2P network emerged called Spotify. Spotify is a subscription based P2P music streaming service that permits it users to listen to digital music without any buffering delay. Music can be browsed by artists, albums or created playlists as well as by direct searches. Links are provided to users to be able to purchase the music directly from their retail partners. Spotify incorporates its own DRM and at this stage it is not possible to save the streamed music outside the network to portable devices. Spotify works by indexing and summarising each user's cache which is sent to the Spotify stream hub upon connection to the service. This index is then used to inform the user of other peers they can connect to in order to obtain the streamed music they require and directly exchange music streams with other peers. Spotify have also developed an iPhone application to allow users of the iPhone to directly stream music to user's handsets.[1168]

[1161] Ibid.
[1162]BBC News, *"Coke music site finally launches"*, BBC News, 20 January 2004, located at http://news.bbc.co.uk/go/pr/fr/-/1/hi/entertainment/music/3412379.stm (accessed on 1 April 2008); see also Hermida, A., *"Online scramble for music downloads"*, BBC News, 19 January 2004, located at http://news.bbc.co.uk/go/pr/fr/-/1/hi/technology/3409089.stm (accessed on 20 June 2008).
[1163] See IFPI *Online Music Report 2004,* op.cit.
[1164] Waters, D., op.cit.; See also The Examiner, op.cit.
[1165]BBC News, *"MTV prepares music download rival"*, BBC News, 4 November 2003, located at http://news.bbc.co.uk/go/pr/fr/-/1/hi/entertainment/music/3240971.stm (accessed on 22 December 2003).
[1166] IFPI's *Online Music Report 2004*, op.cit.
[1167] Schonfeld, E., *"Global Digital Music Sales up 40 percent, but overall sales down 10 percent"*, Techcrunch, 25 January 2008, located at http://techcrunch.com/2008/01/25/global-digital-music-sales-up-40-percent-but-overall-sales-down-10-percent/ (accessed on 11 December 2008).
[1168] Guevin, J., *"Music Streaming Service Spotify wins early fans"*, CNET News, 3 January 2009, located at http://news.cnet.com/8301-1023_3-10130632-93.html (accessed on 3 January 2009).

Many of the services mentioned above have had relative success but have been limited as to the quality of their music availability within their catalogues. The release of the Apple iTunes in 2003 has been an extremely popular service. Its success lay with the simplicity and smooth integration and range of music available for download. Furthermore, iTunes success has also been attributed to the provision of a package to consumers with iTunes providing a legitimate download service to its iPod players. This is discussed in more detail in section 8.1.3. The services mentioned above are examples of some of the services that forged the beginning of the legitimate online music market today.

8.1.3 Record companies licence iTunes

It wasn't until 2003 that legitimate online services rose sharply in number. This occurred in the wake of the successful launch in April 2003 to Macintosh users of the Apple iTunes Music Store.[1169] Apple reported, "iTunes [had] sold an average of 500,000 downloads per week over the first six months, reaching a total of 13 million by mid-October when the service was rolled out to PC users."[1170] Apple also reported "sales of 1.5 million downloads in the PC market in the first week [which helped] drive total sales to 25 million by mid-December 2003."[1171]

The success of the iTunes service remains in its simplicity, the repertoire of music, licensed content and its easy integration with the iPod portable device.[1172] The Apple brand has become synonymous with the likes of Napster for online music due to Apple's heavy marketing campaigns for their iTunes service.[1173] The real success for Apple has been the packaging of the iPod and iTunes as a combination of both a product and service. It allows customers to purchase the hardware device and legitimately download digital music directly to the iPod.[1174]

The legitimate convergence of both the product and service as a package means the copyright issues relating to the digital music in the past for the consumer are now subsidiary to the consumer's choice of purchasing the hardware device. Other manufacturers are now following

[1169] Ibid.
[1170] IFPI's *Online Music Report 2004*, op.cit.
[1171] Ibid.
[1172] Miller, S., op.cit., p.227.
[1173] IFPI's *Online Music Report 2004*, op.cit.
[1174] Leong, K., *"Current Development: ITunes: Have they created a system for International Copyright Enforcement"*, 13 New. Eng. J. Int'l & Comp. L. 365, Spring 2007, p.385.

suit and are providing legitimate music downloads as a service accompanying their MP3 players.[1175]

For example, Sony also introduced their MP3 players in competition with iPod allowing their consumers to also download music from any legitimate service provider that provides digital music in their proprietary codec. Microsoft have licensed their proprietary codec to electronics manufacturers such as LG, Phillips and Toshiba.

Apple utilises the AAC codec format, Sony uses the ATRAC3 (Adaptive TRansform Acoustic Coding) codec format and Microsoft employs the WMA codec format, Ogg Vorbis have made available their proprietary codec for free. A battle looms between these companies as they each provide different proprietary codecs and file formats embedded with their own DRM in order to play music on their MP3 devices.

A codec, as the name suggests, is used to encode and decode (or compress and decompress) various sound files. Used in conjunction with proprietary DRM technologies these codecs can only be used with particular hardware devices which are licensed to use that codec.

Essentially music purchased from the various online music services are not compatible with the players provided by the other manufacturers. For example music purchased from iTunes Music Store can not play in Sony or Microsoft's players and vice versa.

Initially, interoperability between music players was a big concern for consumers as certain MP3 players were only able to play MP3 files that were encoded with a particular proprietary codec. However, more recent branded versions of MP3 players from manufacturers such as Samsung and Dell are now able to play MP3's by supporting a combination of most, but usually not all, proprietary codec formats i.e. WMA, WAV, ATRAC3, MP3 (open format), AAC and OGG.[1176]

There have been a myriad of service launches since 2003. Giant retail chain Wal-Mart started testing its digital service in January 2004 [1177], Real Networks announced its music store initially

[1175] Wunsch-Vincent, S., and Vickery, G., op.cit., p62.
[1176] See different models of MP3 players for retail sale at http://shopping.yahoo.com.au/b/a/c_122701_portable_mp3_players.html (accessed on 23 December 2008).
[1177] BBC News, *"Wal-Mart moves into online music"*, BBC News, 19 December 2003, located at http://news.bbc.co.uk/go/pr/fr/-/1/hi/entertainment/music/3333551.stm (accessed on 7 January 2008).

offering approximately 300,000 tracks and in April 2004 Sony publicised its launch of a download service called Connect and offering approximately 500,000 tracks.[1178] Loudeye Corporation and MusicNet also built 'white label' download stores to offer to third parties to develop their own branded digital music stores.[1179]

EarthLink, a broadband provider, recently announced a partnership with online music services to offer their subscribers packages to these services. Other Broadband providers also have been following suit as they recognise the vast opportunity to increase their revenues by offering online music services in addition to their broadband service.[1180] In Australia a number of legitimate services have also been established and these are described later in the chapter.

8.1.4 Legitimate Services grow between 2003-2006

Crucial developments in online retailing occurred only a few years ago and the figures stated below during the period 2003 – 2006 were the most readily available from IFPI to illustrate the speed of the expansion of these services. IFPI during 2003-2006 wanted to demonstrate the growth in this area but particular figures and cases after 2006 cannot be obtained readily. Legitimate online retail services continue to develop quickly today as they react and experiment with new technologies and business models.[1181]

8.1.4.1 Legitimate services in the US

In the US the total sales for music downloads was approximately US$496 million in 2005.[1182] According to *IFPI's Digital Music Report 2006*, "downloads outsold physical singles by three to one over that period. Single track downloads in the US more than doubled in 2005 to 353 million with a weekly sales average of 7 million tracks."[1183] Furthermore that Report went on to state that, "digital album downloads grew to 16 million, or 2.6% of the album market, up from 1% in 2004."[1184] The launch of portable subscription services such as Napster To Go, Rhapsody To Go and Yahoo Music Unlimited was another important development in the US. These

[1178] Ibid.
[1179] Hollands, M., "*Legal At Last"*, The Australian, 28 October 2003.
[1180] IFPI's *Online Music Report 2004*, op.cit.
[1181] Wagman, M., and Kopp, R., *"The Digital Revolution is being Downloaded: Why and How the Copyright Act Must Change to Accommodate an Ever-Evolving Music Industry"*, 13 Vill. Sports & Ent. L.J. 271, 2006, p.273.
[1182] Ibid.
[1183] IFPI's *Digital Music Report 2006*, op.cit., p.4.
[1184] Ibid.

services allowed listeners to access via their portable digital audio players' entire music repertoires at a push of a button.[1185] Other recent US service launches included Musicland's online store grazemusic.com and Virgin's Red Pass subscription service.[1186] Also in 2006, retailers Target and Best Buy released their digital online services as well as a new MTV/ Microsoft service called 'Urge'.[1187]

8.1.4.2 Legitimate services in Europe

Since 2003, a growing online music market has evolved in Europe. In 2003, Europe had approximately 30 legitimate services.[1188] Near the end of 2003, the first services to launch in Europe were Entertainment UK (EUK) and Virgin Megastore France. Most European legitimate music services are powered by OD2,[1189] but several emerging services independent of the OD2 engine, such as Germany's T-Online 'musicload' launched in 2003.[1190]

Many of the European-based services were attracted to the à-la-carte option in order to permit their customers to purchase individual sound tracks. The popularity of the à-la-carte option in Europe dramatically increased the number of customers for legitimate online services. In 2004, services such as Napster, Rhapsody and iTunes also entered the European market.[1191] Depending on the service, consumers now had access to between 300,000 and 500,000 tracks.[1192]

In 2004, Phonoline, a business-to-business platform for online retailers and portals offering music services was launched in Germany and was able to offer tracks from all five majors and many independent labels.[1193] According to *IFPI's Online Music Report 2004*, "OD2 has been instrumental in the development of the online music market in Europe, along with its retail

[1185] Ibid.
[1186] Ibid.
[1187] Ibid.
[1188] IFPI's *Online Music Report 2004*, op.cit., p.4.
[1189] On Demand Distribution limited (OD2) claims to be the number one supplier across Europe of white label music platforms and business-to-business digital media distribution services. See http://www.ondemanddistribution.com/EN/company.asp (accessed on 14 August 2008).
[1190] Ibid.
[1191] Ibid.
[1192] IFPI's *Digital Music Report 2006*, op.cit., p.5.
[1193] IFPI's *Online Music Report 2004*, op.cit., p.4.

partners including MSN Music Club, Virgin Downloads, Tiscali Music Club, HMV Digital Downloads, Fnac, TDC musik (Denmark), Karstadt and MTV DE."[1194]

The OD2 'engine' being provided by most services in Europe "offers a combination of streaming and à-la-carte downloads, with both subscription and pay as you go alternatives. Services differentiate themselves by a combination of exclusive content, flexible payment options and benefits for 'premium' service or broadband subscribers."[1195]

In Europe, the fastest-growing online music market is the UK. In the UK, the major music retail stores Virgin and HMV launched their services online in 2004 and the existing services of Napster and iTunes were heavily marketing their product that year.[1196] The UK in 2005 recorded 26 million single track download sales during the year which amounted to a four times increase from 2004 and was approximately worth US$54.5 million in value (up from US$14 million in 2004).[1197] Digital singles have been successfully offered for downloads, giving digital sales greater impetus and exposure.

Europe's second largest digital market is Germany, with recorded sales tripling in 2005 to 21 million downloads. In 2005, France, recorded digital sales of approximately 8 million downloads as compared to just 1.5 million downloads in 2004. Unlike the UK, the French and German markets focus on local repertoire and provide their customers with varied pricing options.[1198]

Musicload is the most popular service in Germany, closely followed by iTunes and AOL. "In France, VirginMega and Fnacmusic are the market leaders closely followed by E-Compil and iTunes. In Europe as a whole, iTunes and Musicload lead the way with MSN being the third largest retailer.[1199]

Onetplejer was launched in Poland and offers a catalogue from all the Major and independent labels. In 2006, as compared to 2003 when there were approximately only 30 legitimate

[1194] Ibid.
[1195] Ibid.
[1196] IFPI's *Digital Music Report 2006*, op.cit., p.5.
[1197] Ibid.
[1198] Ibid.
[1199] Ibid.

services, Europe boasts a total of nearly 200 legitimate music services. This included launches in 2005 of Virgin in Greece, MyCokeMusic in Italy and iTunes in Scandinavia and Ireland.[1200] Napster was the first to launch its subscription service in Germany. In both the UK and Germany, Napster also launched its Napster To Go subscription service to offer to customers downloads for their portable devices.[1201]

8.1.4.3 Legitimate services – Canada and Asia-Pacific

The rapid developments in legitimate services in the US and Europe are similarly being emulated in other countries. In October 2003, Puretracks launched the first legitimate online service in Canada with 175,000 tracks in its catalogue as well as other exclusive content, single tacks and albums available for download.[1202] The Puretrack's catalogue had expanded to approximately 300,000 tracks by the end of 2003. In 2004, Puretracks launched its French-language version of the site[1203] In January 2004, French Canadian retailer Groupe Archambault launched its online service focusing on music from local Quebec artists.[1204] Apple also launched its iTunes store in November 2004.

Soundbuzz is the largest and most dominant digital music service provider in the Asia-Pacific region. Soundbuzz has gained access to an expansive catalogue from Major international and regional labels. Soundbuzz is also responsible for powering the web portals of the Hewlett-Packard branch in Singapore and the India Times newspaper.[1205] Soundbuzz continues to expand and is now operating in 13 markets throughout Asia.[1206] In the Asia Pacific region, new legitimate service providers to launch were ilikepop.com, mylisten.com, PlanetMG, and clickbox.co.kr in Korea.[1207] Launched in Taiwan in 2004, the iBIZ platform was Taiwan's first legal download music service and the service offers a 500,000 song catalogue for download.[1208]

[1200] Ibid.
[1201] Ibid.
[1202] IFPI's *Online Music Report 2004*, op.cit., p.5.
[1203] Ibid.
[1204] Ibid.
[1205] Ibid.
[1206] Ibid.
[1207] Ibid.
[1208] Ibid.

In August 2005, iTunes launched in Japan to meet that market's strong growth and demand for downloads. In 2006, Napster also launched its subscription service in Japan. In 2005 a total of at least ten new legitimate music services commenced operations in Asia.[1209]

8.1.4.4 Legitimate Services - Australia

Destra Corporation was the first legitimate digital music service to launch in Australia. Destra provided its support through its service to other retailers like Sanity and HMV.[1210] In 2005, DestraMusic.com had access to over 500,000 tracks.[1211] The largest telecommunications company in Australia was the next to launch a legitimate music service though its online broadband business Telstra Big Pond. Telstra Bigpond commenced with a catalogue of 200,000 tracks available for download and now has access to over 500,000 tracks.[1212] Telstra Big Pond has now expanded its download service to include movies.

On 2 December, 2003 NineMSN launched its own music download service using the OD2 platform. The service offers music from all five of the top record labels. NineMSN jointly set the service up with HMV the large retail music chain.[1213] ARIA has also announced it will produce a new chart of songs to be purchased over the Internet.[1214] iTunes launched in October 2005 and made a dramatic entrance into the market by offering 1,000,000 tracks for download.[1215]

Other Australian legitimate download services that launched in 2005 were Creative Music Store, Chaos Music, MP3.com.au, MTV Music, Mule Music, JB HiFi, Sanity.com, Ozmusicweed, HMV, SoundBuzz and Sound Foundation.[1216] For pricing models and restrictions of the services as at October 2005 see Table 2 below.

[1209] IFPI's *Digital Music Report 2006*, op.cit., p.5.
[1210] Mackenzie, K., *"Battle brews over net music"*, op.cit.; See also Table 2 in this Chapter.
[1211] Ibid; see also Table 2 in this Chapter.
[1212] IFPI's *Digital Music Report 2006*, op.cit., p.5.
[1213] Ibid.
[1214] Mackenzie, K., *"ARIA plans download chart"*, The Australian, 20th January 2004.
[1215] IFPI's *Digital Music Report 2006*, op.cit., p.5.
[1216] Ibid.

8.1.5 Different Digital Distribution Models

It will be useful to now analyse the legitimate digital distribution models for licensed content available in Australia and the effect that price may have on the consumer in relation to the success of these models.

8.1.5.1 License per content and license per collection of content (pay-per-download)

The most popular method for purchasing music online is the "à la carte" method or pay-per-download. This method requires payment be made in advance before the music can be downloaded to a user's computer hard drive. Once the download has finished the user can then listen to the music without being connected to the Internet.[1217] There are three major problems with the business model according to Rosenblatt. These were:[1218]

- Purchasing complexities (e.g. registration and identification processes);
- the complexity of using the technology; and
- consumers are unaccustomed to purchasing digital content via a computer.

The first two problems highlighted remain significant threats to the efficiency of this business model particularly with pricing and interoperability among portable hardware devices.[1219] The third problem is no longer a relatively major issue. Consumers are now comfortable with downloading music from legitimate download services. Furthermore, Apple's iPod and other digital audio players are now quite common.[1220] Due to the nature and complexity of an online purchase, efficient micro payment mechanisms become essential for the future of commercial online music distribution.[1221]

[1217] Wunsch-Vincent, S., and Vickery, G., op.cit., p.30.
[1218] Rosenblatt, B., Trippe, B., and Mooney, S., *Digital Rights Management, Business and Technology*, New York, M&T Books, 2002.
[1219] Sprigman, C., *"The 99 Cent Question"*, 5 J. On Telecomm. & High Tech. L. 87, 2006-2007, p.96.
[1220] Boehm, J., *"Copyright Reform for the Digital Era: Protecting the Future of Recorded Music through Compulsory Licensing and Proper Judicial Analysis"*, 10 Tex. Rev. Ent. & Sports L. 169, 2008-2009, p.195.
[1221] Schmucker, M., *"Protection of coded music"*, Interactive Music Network, p.20, located at http://www.interactivemusicnetwork.org/wg_protection/upload/musicnetwork-de4-5-1-protection-of-coded-music-v1-4.pdf (accessed on 20 July 2005).

8.1.5.2 Subscription based services

Subscription based services are based on the customer paying a fee and in return gains access to a collection of downloadable digital tracks.[1222] Some subscription models permit visitors to hear music in real time via streaming without allowing the file to be downloaded to the customer's hard drive. In most subscription models a username and password is required to log on and access content on the proviso payment of a standard regular fee is made. The regularity of payments ensures a constant revenue stream to content providers and makes the subscription model very attractive to digital content providers. Only a small number of companies have been successful in building subscription based online services and current adoption of this model remains low.[1223] The following reasons can be identified to explain the low adoption of this model:

- customers prefer to own the content rather than rent it;
- user's avoid purchases due to trust;
- user's believe the Internet should be free;
- people prefer a physical product; and
- value, timeliness, and uniqueness (value depends on the customers utilising the services frequently to get their monies worth. Circumstances such as drop outs, downtime and time delays all affect the value of the model).[1224]

The Internet has provided a new music delivery method to listeners. At times, the Internet has been regarded as a huge jukebox, providing vast numbers of available tracks and different genres of music to online users. Recent attempts to integrate DRM technologies to subscription-based services also hampered the success of this model.[1225] The subscription model has been adopted successfully amongst a number of service providers. However, the problem with this model with consumers is that subscribers feel that they do not get value for their money if they do not use the subscription often enough.

[1222] Myska, M., *"Flat Fee Music"*, 2 Masaryk U. J.L. & Tech. 75, 2008, p.78.
[1223] Wunsch-Vincent, S., and Vickery, G., op.cit., p.48.
[1224] Schmucker, M., op.cit.
[1225] White, T., *"The music industry's web of intrigue. (Music to My Ears)"*, Billboard, Vol. 114 Issue 9, 2 March 2002.

8.1.5.3 License per rendering (pay-per-listen, pay-per-play)

This business model originated from a platform which provides for the delivery of live theatre or concert performances, playing of movies, live sporting events and jukeboxes. This model is better known as pay-per-view or view-on-demand which has been utilised by satellite and cable television providers successfully in providing exclusive content to their viewers for a fee.[1226] Some online music providers have been offering a pay-per-listen or pay-per-play model without permitting the end user to download and keep a copy on their computer hard drive.[1227] The pay-per-play and pay-per-listen models have not been overly successful. Consumers prefer the pay-per-download model as this allows a permanent copy to be downloaded to their computers/digital music players for continual playback.

8.1.5.4 License for a specific time frame

Another business method adopted by online music service providers allowed a certain number of tracks to be played within a certain time frame. The purpose of this business method is to tempt the customer for a certain product and after the free period expires the customer would then have to purchase the content or the rights for playing it.[1228]

The License for a specific time frame model has been relatively unsuccessful for music file sharing.[1229] Consumers prefer to ensure that the money they spend will permit them to continuously play back the music file downloaded to their computers/portable digital music players.[1230] However, this model has been adopted successfully by download services to restrict the amount of copies downloaded to a device and the sharing of music files beyond a number of copies.[1231]

[1226] Schmucker, M., op.cit.
[1227] Ibid.
[1228] Ibid.
[1229] Ibid.
[1230] Ibid.
[1231] Ibid.

8.1.5.5 Distributed retail by distributing content to consumers (superdistribution)

Superdistribution is another approach to distributing and increasing the sales of recorded music files.[1232] Superdistribution encourages the distribution of music files between users by making the software and digital files openly available to the public via networks or over the Internet for users to download.[1233] Essentially, each user becomes itself a distributor without impediment but is controlled by certain restrictions.[1234] The software is actually usage meterware and its effect is to measure revenue collection from the way the music files are distributed.[1235]

With the use of DRM technology, superdistribution promotes extensive dissemination of music files that can only be accessed under a restricted set of circumstances. Some of these restrictions include, "opening the file only on a single computer; opening the file a limited number of times; or allowing the file to be opened only after a payment has been processed."[1236]

The Superdistribution model has been successful with software but has not been incorporated for file sharing of music to date.[1237] A reason that service providers have not implemented this model is due to the difficulty in control and administrative costs in tracking micropayments and lack confidence that DRM technology are advanced enough to maintain the protection of the music files.[1238]

8.1.5.6 Usage metering

Usage metering is premised on charging the consumer based on use. It is sometimes also called the 'pay as you go approach'.[1239] Unlike the subscription based model, metered services are paid for by users based on consumption. Customarily, metering is used for essential utilities (for

[1232] See definition of *"Superdistribution"* located at http://www.wordspy.com/words/superdistribution.asp (accessed on 9 November 2008).
[1233] Green, T., *"Music Super-Distribution to go Live"*, Mobile Entertainment, 2 September 2008, located at http://www.mobile-ent.biz/news/31326/Music-super-distribution-service-to-go-live (accessed on 20 September 2008).
[1234] See Microsoft, *"Taking advantage of Superdistribution"*, MSDN, located at http://msdn.microsoft.com/en-us/library/bb649412(VS.85).aspx (accessed on 25 September 2008).
[1235] Green, T., op.cit.
[1236] Supra, see footnote 1128.
[1237] Microsoft, *"Taking advantage of Superdistribution"*, op.cit.
[1238] Cox, B., *"Superdistribution"*, Wired.com, 2 September 1994, located at http://www.wired.com/wired/archive/2.09/superdis.html (accessed on 20 December 2008).
[1239] Rappa, M., *"Business Models on the Web"*, Managing the Digital Enterprise, 14 January 2004, located at http://digitalenterprise.org/models/models.html (accessed on 13 December 2008).

example, electricity, water, long-distance telephone services). In some parts of the world, not unlike mobile phone providers, ISPs operate as utilities charging their customers based on their consumption of connection minutes.[1240] Usage metering has not been adopted as a successful model due to the difficulty in administration and cost. Most providers prefer the subscription model or pay-per-download model.[1241]

8.1.5.7 New digital distribution models emerge

8.1.5.7.1 DRM Free Music

In early 2007, EMI made a public release that it was introducing new premium downloads for sale globally via iTunes, making its entire digital catalogue available free of digital rights management (DRM) restrictions.[1242] According to EMI, the new premium downloads will provide higher sound quality than existing downloads.[1243]

The superior quality DRM-free music can be played on any device and supplements EMI's existing catalogue of standard DRM-protected downloads sold through the iTunes store. The intention was that the first DRM-free downloads would be sold at a premium US$1.29 per track instead of the standard US99-cent iTunes downloads.[1244] As at 31 December, Apple Australia had not released the Australian prices for their DRM-free music.

EMI announced that for US30 cents, consumers could upgrade their previously acquired EMI tracks (which contained Apple's FairPlay DRM) from the iTunes store to the premium DRM-free downloads. EMI also stated that DRM-free full albums will be made available at the same price as standard albums on iTunes.[1245]

Apart from iTunes, EMI released plans to expand the program to other online music retailers. EMI's retailers will benefit from the new initiative because they can now offer customers DRM-free downloads of tracks and albums of various data rates up to near CD quality. It is interesting to note that EMI's primary reason for releasing the premium downloads was in response to

[1240] Ibid.
[1241] Ibid.
[1242] Nichols, S., *"DRM activists hail EMI Apple deal"*, Australian PC Authority, 4 April 2007, located at http://www.pcauthority.com.au/news.aspx?CIaNID=49238 (accessed on 18 June 2007).
[1243] McCarthy, C., op.cit.
[1244] Ibid.
[1245] Ibid.

consumer demand for higher quality digital music for home use, mobile phones and portable digital music players. This has been somewhat of a pioneering move by EMI and Apple considering the music industry's stance on Napster. Quite clearly, the decreasing revenues in traditional music sales and the increase in digital music sales have prompted EMI's decision. EMI's new DRM-free downloads would certainly solve the current interoperable platform problems by enabling full interoperability across all devices and platforms of its open DRM-free music.

According to McCarthy, "EMI Music will continue to employ DRM as appropriate to enable innovative digital models such as subscription services (where users pay a monthly fee for unlimited access to music), super-distribution (allowing fans to share music with their friends) and time-limited downloads (such as those offered by ad-supported services)."[1246]

Not long after EMI and Apple's announcement offering DRM free music downloads from their services, Sony BMG, Universal, Warners, Wal-Mart, Amazon, Rhapsody, Puretracks, Limewire and Verizon announced their intentions to also open up their music for download DRM free.

8.1.5.7.2 Advertising driven free download model

For over a decade now, the music industry has tirelessly attempted to prevent people from downloading MP3s from unauthorised P2P networks. Now, some of the labels are entertaining the use of these models to encourage people to listen to music the same way as the Napster model made its revenue. Although the music industry has been averse to legitimising free music, they are also appearing to be exceedingly willing to explore new business models. Retail sales of music CD's and DVD's were down sharply in 2007 continuing its trend after earlier declines, and the gains achieved in the sales of digital music are not improving rapidly enough to repay the music industry's previous losses.[1247]

Obviously, some differences remain between the Napster model of old and the new advertising driven free download models. It is noted that services such as Qtrax, Spiralfrog and Ruckus have not finalised their negotiations with the Major labels, but some of these services will be offering

[1246] Ibid.
[1247] Levine, R., *"New Model for Sharing: Free Music with Ads"*, The New York Times, 23 April 2007, located at http://www.nytimes.com/2007/04/23/technology/23qtrax.html?_r=3&scp=3&sq=qtrax&st=nyt&oref=slogin&oref=slogin&oref=slogin (accessed on 30 April 2008).

DRM free music, whilst others will not.[1248] Furthermore, usage rights will be imposed with some services and some services will not be providing music compatible with playing on the iPod. These services operate on the same premise as commercials finance the production of shows on television, that being that advertising sales would be employed to reimburse the music labels for making their music repertoires available through these services. From the user's perspective, the advertising driven free music model works much like any P2P file-sharing program. But these models will only be provided with licensed content and when an MP3 is accessed by a user will pertinent advertising will be displayed, not unlike Google provides with its Adwords.[1249] Advertisers can not choose a single artist to display their messages but can chose to purchase selections of a particular style or genre of music. For a certain period of time, users will be able to listen to sound files before having to legitimately purchase the song.[1250]

8.1.5.7.3 Mobile phone integrated billing model

With the massive uptake in the mobile phone market for digital downloads of music, some mobile phone operators are providing music subscription services for a monthly fee to access unlimited MP3 downloads to mobile phones or other compatible portable digital devices.[1251]

Apart from providing direct downloads of digital sound files to mobile handsets; subscribers can also download the digital sound files without connecting to a computer. These files can then be tagged by the subscriber for download at a later time. In addition, these tracks can also be made available from the user's PC and can in turn be directly downloaded to the subscriber's mobile handset. Users can also select an integrated billing option at the time of registering with the service allowing both mobile phone charges and music downloads to the handset to be combined on the one bill.[1252]

[1248] Ibid.
[1249] Boehm, J., op.cit., p.196.
[1250] Ibid.
[1251] Slocombe, M., "*Ericsson And Napster Team Up For Mobile Music Service"*, Digital Lifestyles, 15 June 2005, located at http://digital-lifestyles.info/2005/06/15/ericsson-and-napster-team-up-for-mobile-music-service (accessed on 17 June 2005).
[1252] Ibid.

8.1.6 Issue of Price for Consumers

In light of the different business models and legitimate P2P services available the issue of price is a determining factor of choice for the consumer.[1253]

8.1.6.1 Pricing Models – Legitimate distribution models

The very early efforts of the recording industry to limit downloading seemed almost ludicrous. First, they ignored the public-lead digital music download revolution. Then they acknowledged it but prohibited their repertoire to be downloaded. Then they allowed certain material to be downloaded but only for the payment of a fee that no Internet customer would pay.[1254] For example, a download was for a price similar to that paid for a compact disc. Also, consumers did not like paying a similar amount for an online album and not getting the printed cover or labeled/pressed CD as they would if they purchased the physical product.

Then with the approval of the recording industry certain licensed content was made available to retailers. Retailers attempted to trial a pay-per-play model charging initially between $3-$5 per download which failed to attract consumers because the price the consumer would pay for a few songs would soon add up to the price of a physical CD.[1255] The consumer would weigh up the risks of getting caught by downloading illegitimate copies for free. There was no incentive for the consumer to purchase legally through a legitimate download service.

In 2001 the record companies invested significant financial resources in two legitimate subscription services, MusicNet and PressPlay. The establishment of these companies became expensive and convoluted due to the lack of co-ordination between the major record labels, difficulties in obtaining copyright rights clearances from each other and the disparate interests of the major labels to not be able to agree to a joint platform with a common set of terms and conditions.[1256]

MusicNet and PressPlay were not commercial successes. The music industry's first commercial attempt flopped and can be attributed to the timing of the platforms release. At that time widespread unauthorised file sharing was occurring, access to the sites were laboriously slow and

[1253] Perritt, H., op.cit, p.305.
[1254] Bockstedt, J., Kauffman, R., and Riggins, F., op.cit., p.19.
[1255] Garrity, B., *"Commercial interest in digital distribution"*, Billboard, Vol. 114, Issue 28, 13 July 2002.
[1256] Wunsch-Vincent, S., and Vickery, G., op.cit., p.46.

with broadband seemingly non-existent all culminated in the lack of support by consumers.[1257] Further, these major label supported platforms had complex user interfaces, limited repertoire to choose from, exorbitant subscription costs and immature DRM technology were all problems which made the MusicNet's and PressPlay's platform a failure.[1258] The key fundamental error made by the major labels was their failure to provide an amalgamated and wide-ranging music catalogue to their customers.

After the music industry's failure at establishing an online music business, it took several more years before other legitimate online music services would enter the scene. The reason for the delay was to ensure that their services did not repeat the mistakes of the major labels. MusicNet and PressPlay were sold by the major labels to the Roxio Company. It is ironic, that after Roxio bought the two platforms from the major labels, Roxio merged the platforms together and changed its name to Napster after having bought the rights to the Napster brand. The major labels in essence provided the platform that is now named after the first popular file sharing network that caused the major labels so many problems.[1259]

After the failures with the PressPlay and MusicNet models, the major labels reintroduced in 2007, 'direct to consumer' initiatives allowing consumers to access a range of artist products directly via their website. A new wave of artist sites now offer the opportunity for consumers to connect with the artist, purchase content and communicate with other fans.
Universal Music also established getmusic.com.au in Australia as an e-commerce website for consumers who want to buy tracks, merchandising or concert tickets. It also provided news, competitions and forums for music fans.[1260]

Boutique artist sites are also proving successful for artists such as U2. U2.com now offer exclusive music tracks, behind the scenes interviews, fan reviews, limited edition merchandising and invitations to become involved in the campaigns that U2 are active in.[1261]

[1257] Ibid.
[1258] Ibid.
[1259] Ibid.
[1260] IFPI's *Digital Music Report 2008*, located at http://www.ifpi.org/content/library/dmr2008.pdf (accessed 20 December 2008).
[1261] Ibid.

Warner Music and Premium TV, a specialist digital services provider launched Rhino TV, a specialist digital hub for consumers. The site offers an interactive, free-to-access music experience that enables visitors to manage and share their favourite tracks as well as purchase content. Through a searchable archive, users can search thousands of hours of music-related video.[1262]

Experimental new pricing models also took shape in 2007. One such system was tested in October, when the British band Radiohead offered downloads of their new album directly on their website under an "honesty box" system.[1263]

In the aftermath of the recent P2P case victories by the music industry there are now 335 licensed online services worldwide.[1264] Apple iTunes, Zunes, Wal-Mart and Napster lead the charge in terms of market share for legitimate downloads.

The model of choice and the most popular amongst consumers is the pay-per download model (pay per download of a track or album). The pay-per-download model has achieved more recent success with online legitimate download services now offering from AU99 cent (a special offer to Telstra Big Pond Members) to AU$2.00 single track downloads and AU$15.00 – AU$18.95 to download an album.[1265] See further the most popular legitimate distribution models and their pricing information at Table 2 below.

The comparison of costs between digital and physical music reveals significant differences. One has to consider that digital music does not include the additional expenses of promotion, printing, pressing, retail distribution channels and transport costs. In Australia, the approximate cost for a physical new release single at a store is approximately AU$6.00 and a physical new release album varies in cost from approximately AU$18.00 - AU$29.00

[1262] Ibid.
[1263] Ibid.
[1264] IFPI's *Digital Music Report 2006*, op.cit., p.1.
[1265] See Prices in Table 2.

In 2005 Australian recorded music sales were estimated at 58.3 million units. In 2006, ARIA estimated that in Australia recorded music sales increased 5.8 percent which netted an extra AU$12 million to be a total sales of just over AU$224 million for the half year to June 2006.[1266]

In 2006, CD albums also experienced with gains with a 17 percent increase from 2005 and an extra 3 million units shipped to retail stores.[1267] Digital music sales for the half year to June 2006, accounted for 5.5 percent of the total value of the recorded music market. In contrast with the full year results for 2005 digital sales made up only 1.5 percent of the market for that year.[1268]

The world market for digital music is increasing at an exponential rate. In 2006, IFPI estimated that digital music accounted for 10 percent of the world wide music market and digital music revenues doubled to US$2 billion.[1269] There were 588.2 million physical albums sold in 2006, down 4.9% from 2005. Digital downloads of single tracks were up 89 percent to 795 million and digital album sales more than doubled, with nearly 33 million sold in 2005.[1270]

[1266] ARIA, *Australian Record Sales – 2006 Full Year Results Report*, located at http://www.aria.com.au/2006AustralianWholesaleRecordSales.htm (accessed on 19 March 2008).
[1267] Ibid.
[1268] Ibid.
[1269] IFPI's *Digital Music Report 2006*, op.cit., p.3.
[1270] Ibid, p.4.

TABLE 2

	Apple iTunes  Features	Creative Music Store  Features	DestraMusic.com  Features	MP3.com.au  Features	MTV Music  Features
No. of songs	1,000,000	300,000	500,000	70,000	150,000
Average price	AU$1.69/song, AU$16.99/album	AU$1.49/song, AU$15/album	AU$1.89/song, AU$18.95/album	Free	AU$2/song, AU$18.50/album
File format	Fairplay protected AAC	WMA	WMA	MP3	WMA
Requirements	iTunes software, Windows 2000 or XP for PC, or Mac OS X v10.2.8 or later for Mac	Windows 98 and above, Windows Media Player 7.1 and above	Windows 2000/XP/ME, Internet Explorer 6 or above, Windows Media Player 9 or above.	Any program that can play MP3 music files	Windows 98 SE or above, Internet Explorer 4 or above, Windows Media Player 7.1 or above, Optus Mobile account (with compatible Optus Zoo mobile)
Restrictions	• Music purchased can be played on up to five PCs • Single songs can be burnt to CD an unlimited number of times • Playlists can be burned up to seven times • Music purchased can be transferred on an unlimited number of iPods	• Can burn the song up to three times onto a CD. • Can copy the song to up to three compatible portable music players. • Up to two reinstalls in the first year after purchase.	• Can burn the song up to three times onto CD. • Can transfer it an unlimited number of times to three portable music players that can play licensed WMA files. • Up to four re-installs per year allowed.	None	• Can burn the song up to two times onto a CD. • Can copy the song to up to two compatible portable music players. • Up to two reinstalls in the first year after purchase.
Compatible players	Any Apple iPods or Motorola's Rokr phone.	Creative portable music players.	Any that can play licensed WMA files.	Any that can play MP3 music files.	Any that can play licensed WMA files.

TABLE 2 - Continued

	Mulemusic  Features	nineMSN HMV  Features	Soundbuzz  Features	Sound Foundation  Features	Telstra BigPond Music Features
No. of songs	200,000	780,000	300,000	300	500,000
Average price	AU$1.69/song, AU$16.60/album (Prices will vary depending on when the song was released.)	AU$1.49/song (Listening to a live stream of a song costs 5c)	AU$1.49/song, AU$15/album	AU$1.20/song -- minimum 10 song purchase	AU$1.49 for BigPond internet customers. There is a current offer of $99c downloads for certain tracks for Big Pond Members. For non-BigPond customers it's AU$1.89. Albums are average AU$18.50 for non members.
File format	WMA	WMA	WMA	MP3	WMA
Requirements	Windows 98 SE and above, Microsoft Internet Explorer 6 and above or Netscape Navigator 7.0 and above, Windows Media Player 9.0 recommended.	Windows 98 or above, Windows Media Player 7.0 or above, Internet Explorer 5.0 or above.	Windows 98 and above, Windows Media Player 7.1 and above.	Windows 98 and above, Windows Media Player 7.1 and above.	Windows 98 or above, Windows Media Player 9.0 or above, either Internet Explorer 4 and above or Netscape 6 and above.
Restrictions	• Can burn the song up to three times onto a CD. • Can copy the song an unlimited number of times to up to two portable music players. • Up to two reinstalls in the first year after purchase.	Varies from record label to record label. Check Rights Information link beside each song/album for details.	• Can burn the song up to three times onto a CD. • Can copy the song to up to three compatible portable music players. • Up to two reinstalls in the first year after purchase.	• None	• The computer you download the song licence to is the only one that can play the track. • Can burn the song up to three times onto CD. • Can copy the song an unlimited number of times to up to two portable music players. • Up to two reinstalls in the first year after purchase.
Compatible players	Any that can play licensed WMA files.	Any that can play licensed WMA files.	Any that can play licensed WMA files.	Any that can play MP3 files.	Any that can play licensed WMA files.

*Source – Ramsay, R., *"Ditch the Disc: A guide to online music in Australia,* CNET news.com, 25 October 2005 located at http://www.cnet.com.au/mp3players/0,39028967,40054461,00.htm

On the other hand, initial adoption by consumers of subscription models were relatively low because of the lack of ownership rights of the digital music and the lack of portability of the streamed music from the PC to portable devices for on demand consumption.[1271]

[1271] Lilla Montagnani, M., op.cit., pp.758-759.

However, proving more popular now with consumers are the new subscription models (with prices similar to subscription prices for broadband services) which provide unlimited download use and portability of the subscription to portable devices.[1272]

Napster was the first to provide such a service with the Napster To Go platform released in late 2005. For a monthly subscription of US$14.95 a month users of the service can download sound files away from the computer and directly to their portable digital devices.[1273] If the monthly subscriptions are not paid then the rights to continue playing the music and the user's ownership of the music are revoked and cancelled.[1274] According to IFPI's Online Digital Music Report 2006, subscriptions to legitimate digital music services have increased from 1.5 million subscribers in 2004 to 2.8 million subscribers worldwide.[1275]

Apart from pay-per-download and subscription services the other digital distribution models have not proven to be very successful.

8.1.6.2 Payment Systems

Initially, consumers did not accept having to pay for music online and encountered problems with the early payment systems for online music. Firstly, consumers are naturally nervous when it comes to making payments online due to credit card fraud. Secondly, consumers were having problems with making micropayments as many credit card companies would not and still do not accept micropayments for less than one dollar.[1276]

However, as credit card payment systems improve and become trusted systems, credit card transactions are becoming more common on the Internet. Naturally, for paid downloads credit card fees are a vital concern particularly when the transaction amounts are small. As a consequence a number of micro payment systems have evolved in an attempt to reduce online transaction fees, which is an important factor in the digital context.[1277]

Consumers have different expectations for utilising payment systems. Their concerns are that:

[1272] Ibid.
[1273] About.com, *"Napster To Go – Review of the Napster To Go Subscription Service",* About.com, 2006, located at http://mp3.about.com/od/wheretobuymusic/fr/napstertogo.htm (accessed on 17 September 2006).
[1274] Ibid.
[1275] IFPI's *Digital Music Report 2006*, op.cit., p.7.
[1276] Hayes, S., *"Micropayments plan to pay for MP3 files"*, The Australian, 25 March 2003.
[1277] Ibid.

- the payment system is universally used and recognisable to users in order to prevent any ongoing problems.
- paying should be secure and stress free, users will not tolerate difficult registration services.
- payment should be discrete and anonymous.[1278]

Some of the different payment models that have been implemented to complement online payment services include:

- *Pre-Paid*: Pre-paid payment systems are not customer friendly as they require payment prior to utilising the system to obtain digital content. Pre-paid payment systems can be in the form of physical prepaid cards, hardware or software transactional methods.[1279]

- *Pay-Now*: Pay-Now payment systems are based on the traditional 'cash on delivery' method of payment. At the time of making a purchase transfer of money is required whether it be by credit card, debit card, PayPal or direct money transfer. Consumers have become more comfortable with making credit card payments for these types of transactions as fraudulent purchases can be traced and payment halted and refunded within 30 days by the payment institution. Other pay-now methods include payments made by mobile phones.[1280]

- *Pay-Later*: Pay-later payment systems are based on receiving the goods or services first and then making payment for them later. These methods include direct debit from credit cards and bank accounts, monthly invoicing and integrated billing systems after the purchases have been made.[1281]

[1278] Helberger. N., Dufft, N., Van Gompel, S., Kerényi, K., Krings, B., Lambers, R., Orwat, C., and Riehm, U., *"Digital Rights Management and Consumer Acceptability"*, Indicare, December 2004, pp.102-103, located at www.indicare.org/tiki-download_file.php?fileId=60 (accessed on 28 March 2008).
[1279] Schmucker, M., op.cit.
[1280] Ibid.
[1281] Ibid.

Practically all legitimate digital music distribution services accept credit cards as the accepted transaction method. The most trusted credit card systems are Visa, MasterCard, Diners and Amex credit cards. Per download all the major credit cards charge a flat fee as well as a percentage fee. Taking the fact that most downloads are less than a dollar this can be quite a chunk of the transaction cost of the download. Furthermore, another cost attributed to credit cards to be factored in is the merchant or interchange fee between the card issuing bank and the merchant. Merchants are also hit with verification fees per transaction for all purchases conducted over the Internet. These merchant fees are normally dependent on sales volumes. Unfortunately for the consumer, merchants will normally pass these fees on as a form of surcharge to the credit card holder as a privilege for paying by credit card.[1282]

Many legitimate services have devised methods of aggregating costs in order to reduce exorbitant fees for each transaction. For instance, Apple's iTunes tallies up the download sales for a user during a period prior to forwarding the due amount to the card issuing bank for reimbursement. Wal-Mart attempts to avoid the major credit cards by accepting its store card for payment.[1283] Napster reduces its costs by accounting the user's digital downloads and providing monthly statements to customers. Yahoo integrates its premium service billing with the user's download activity.

Several ISPs, such as AOL and Bigpond provide integrated billing methods for digital download purchases. It is easier and more convenient for a network provider that already has an association with their customers for downloads to be paid through the network's payment system in order to minimise costs.[1284] This model is also being adopted by some mobile phone operators essentially making the handsets payment devices. An example of this is the new Apple iPhone where downloads from iTunes can be accounted, charged and integrated with the customer's phone bill. These examples provide prospects for mobile phone operators, ISPs, and content owners to collaborate with one another to establish new e-commerce payment schemes.[1285] Pre-

[1282] Wunsch-Vincent, S., and Vickery, G., op.cit., p.55.
[1283] Ibid.
[1284] Castle, C., and Mitchell, A., *"What's Wrong With ISP Music Licensing"*, Entertainment and Sports Lawyer, Vol. 26, No. 3, 2008-2009, p.4; See also Ginsburg, J., *"Separating the Sony Sheep from the Grokster Goats: Reckoning the Future Business Plans of Copyright-Dependent Technology Entrepreneurs"*, 50 Ariz. L. Rev. 577, 2008, p.578.
[1285] Ibid.

paid cards have also been trialed with customers by having the customer pay by cash or debit card directly to the music stores in order to eliminate credit card fees.[1286]

The latest pricing structures are achieving great success and are now at a value which appears to have been accepted by consumers as a legitimate price for online music (See Table 2). New business models which are achieving great success with consumers is the DRM free distribution model and the free download web advertising based revenue model referred to above in sections 8.1.5.7.1 and 8.1.5.7.2.

8.1.7 Problems with the legitimate services for consumers

There are many issues facing the consumer before they make a choice as to their preferred online music distribution service. This thesis will now examine these issues and refer to certain models throughout this section. These models are:

1. Labels' selling only their own catalogues online ("Major labels"). For example, the EMI download store called Musichead.com.au;

2. Consolidated download services with multi-label catalogues ("independent digital retailers"). For example iTunes, Bigpond Music etc.; and

3. Unauthorised P2P services ('P2P") which provide music to users for free.

8.1.7.1 Usability

Consumers deem the usability of a service as a vital factor in determining whether they are getting value for money. According to Borland, a consumer would be willing to sacrifice the usability of a platform for an extensive repertoire of music. However consumers would prefer to have an accomplished search engine and an aesthetically appealing platform. Most users do not have the time to conduct extensive searches for music files, and the impact of a user-friendly interface will more than likely keep those consumers coming back to the service.[1287]

Backed by the Major labels, the Independent digital retailers' services tend to have a better interface and provide easier ways to locate music than P2P services. P2P networks do not have

[1286] Ibid.
[1287] Borland, J., *"Free vs. fee: Underground still thrives"*, CNET News.com, 30 May 2003, located at http://news.com.com/2009-1027_3-1009541.html?part=dtx&tag=ntop (accessed on 28 September 2008).

the ability to centrally catalogue their music (since the Napster decision) because of P2P network's inherent architecture; rather they incorporate expansive search engines to locate requests.[1288] From a consumer's perspective, the combination of the two platforms would be ideal, whereby a service could provide a first rate search engine with a structured and expansive repertoire catalogue.

8.1.7.2 Availability

Restrictions incorporated in digitally distributed files often prevent them from being used in certain circumstances. Most unauthorised P2P networks provide users with the facility to download digital music files to any computer hard drive. The files available for download are mainly MP3's in an open format, which can be played back on any digital device without restriction.

The Major label's released the PressPlay and MusicNet services and they had the worst content availability because of the usage restrictions placed on the consumer imposed by DRM technologies.[1289] What was distasteful for consumers of the Major labels' services was that music purchased from these services was only usable as long as the subscriber paid the monthly subscription fee. This meant a consumer did not own a copy of the music permanently after purchasing the download and this was not received well by customers of the label's service.[1290]

Independent digital retailers have had the advantage over Major labels' services in that they can provide legitimate downloads of music from a variety of different labels by negotiating and entering into license agreements with them to provide content. The Major labels' services did not share their catalogues with each other, and that is one reason for their lack of popularity and success. Subsequently, the Major labels sold their online services to independent digital retailers.[1291] The legitimate online services' main advantage over P2P services is their capability

[1288] McGarvey, R., *"P2P is dead long live P2P: Napster has been clobbered by courts, Scour has effectively vanished, KaZaA (the Dutch Napster) has been hit by huge legal sticks and shut down"*, EContent, Vol. 25, Issue 3, March 2002.
[1289] Matin, A., *"Digital Rights Management (DRM) in Online Music Stores: DRM-Encumbered Music Downloads' Inevitable Demise as a Result of the Negative Effects of Heavy-Handed Copyright Law"*, 28 Loy. L.A. Ent. L. Rev. 265, 2007-2008, p.292.
[1290] Borland, J., and Hu, J., *"Web rights deal will let the music play"*, ZDNet, 18 September 2001, located at http://www.zdnet.com.au/web-rights-deal-will-let-the-music-play-120260517.htm (accessed on 12 January 2008).
[1291] PressPlay was sold to the Roxio who operated the legitimate Napster service in May 2003 and MusicNet was sold to a private equity firm Baker Capital in April 2005.

to offer definite bandwidths and superior music quality and fidelity. The legitimate online services cannot compete with P2P services as the quantity of available and free digital music on these networks usually exceeds the legitimate services. However, for customers to perceive that they are getting value, a certain number of digital music tracks must be available for download from the legitimate services. Legitimate services still have difficulties in obtaining licenses from the Major labels because the Major labels continue to place restrictions on who they licence to, what licence levels to provide to legitimate digital online retailers and which songs will be made available and from which artists can be distributed.[1292]

Previously, the Major labels were very restrictive with licenses to legitimate services but they are quickly realising that in order to compete with P2P file sharing services they must make their catalogues or repertoire available digitally. The Major labels have agreed to deal with numerous legitimate online retail services since their unsuccessful launch of their own online services.

8.1.7.3 Portability

Consumers have difficulty in knowing what formats are downloadable for their devices from legitimate online retailers. The Major labels impose certain DRM restrictions be incorporated in digital music files. These DRM restrictions prevent consumers from being able to play the music beyond a single device or transferring the music to their portable devices and in some circumstances permit the playing of the digital music on portable devices only for a certain time. Some DRM restrictions prevent burning the music to CD at all. Consumers become disappointed in these services where the music provided is heavily restricted and the players are incompatible and interoperable with other services they may wish to use. Further their digital devices may not be able to play the music unless they have a compatible player with the compatible proprietary codec. A further perceived problem is that some of the available music from the legitimate services is country specific. For example, even though iPods had been available since late 2003 in Australia, downloads from iTunes were not available in Australia for iPod's until late 2005.[1293]

[1292] Borland, J. and Hu, J., op.cit.
[1293] BBC News, *"Strong debut for iTunes for PC's"*, BBC News, 20 October 2003, located at http://news.bbc.co.uk/go/pr/fr/-/1/hi/technology/3207984.stm (accessed on 27 October 2003).

8.1.7.4 Music Selection

The most important consideration for a consumer is the variety and collection of music available from a service as to whether the consumer will make a purchase from that service.[1294] If the selection of music is not available or the consumer can not find what they are looking for then this will affect their decision and the consumer will not pay for it and will look elsewhere to find the selection of music.[1295]

There may be exceptions where consumers are conducting specialised searches for niche genres of music and artists. The Major labels and legitimate online retailers do not offer the same level of selection as P2P networks to different genres of music.

8.1.7.5 Music Selection Control

It is essential for legitimate services to control their music selection to be able to properly account and collect royalty fees to the artists and licensed owners of the music. The incorporation of DRM technologies and the maintenance of a central server that contains and records all download transactions provides the requisite control for legitimate services over their music selections.[1296] Consumers have difficulty in knowing that their downloads may be protected by certain DRM technologies which prevent playback of their music files on certain devices.

8.1.7.6 Selection Difficulties

Up until its legal battle with the Major labels, the most popular P2P network with an extensive catalogue of music was the KaZaA network. Other P2P services such as Limewire, BitTorrent have become more popular since KaZaA's demise. The problem for consumers is that they have difficulty selecting between the convenience and quality of obtaining music files from legitimate online retailers for a fee with attached restrictions or obtaining the music from illegitimate P2P networks for free.

[1294] Meisel, J., *"Entry into the Market for Online Distribution of Digital Content: Economic and Legal Ramifications"*, SCRIPT-ed Vol. 5, No. 1, April 2008, p.53.
[1295] Helberger. N., Dufft, N., Van Gompel, S., Kerényi, K., Krings, B., Lambers, R., Orwat, C., and Riehm, U., op.cit., p.99.
[1296] Ibid.

8.1.7.7 Transborder digital purchases

Consumers are sceptical about doing business online generally. The scepticism is fuelled by media reports about fraudulent transactions and disreputable online merchants. There are certain key issues that a consumer needs to answer before deciding to conduct transborder digital purchases of music or services. How safe is the information which the user is putting in while registering or purchasing online, the quantity and quality of the service, how competitive are the prices offered, how does the consumer deal with issues when they arise with an operator based overseas and last but not the least, how legitimate is the website from which the consumer is transacting.

Many of these issues surround the issue of trust. Consumers prefer to deal with well known brand names and services that have secure payment systems rather than unknown services. Consumers based in Australia prefer to deal with local legitimate online retailers which they know and trust. The problem for legitimate download services based overseas is to convince the consumer that they are a trustworthy service in which to do business.

8.1.8 Conclusion

The interaction of supply and demand for music is determined more by business models around which production is organised than by law, although business models are or course influenced by the perception of law's rights and privileges. As technology makes it more difficult to control the distribution of recorded music, limiting distribution through DRM laden content or restricting supply through label owned proprietary digital business models, these have not been the answer. The recording industry should not be focussing their resources on preventive strategies such as proprietary digital distribution models and DRM and reliance on lobbying Government for more restrictive legislation but focus more on getting the balance right between copyright owners and copyright users so as not to stifle creativity. The recording industry should focus to ensure that resources allocated for the creation and consumption of music are optimal from a consumers perspective and clarify privileges for certain types of music consumption that do not represent risks to the legitimate expectations of the artists and the creation of new forms of dissemination software.

In summary, some conclusions can be drawn from the above examination. These are:

- That technologies have advanced to the point that everyday electronic devices (i.e. computers, mobile phones, car radios etc.) have functionalities which incorporate and embrace digital music players;
- That legitimate online music distribution models are now more common and varied;
- That legitimate online retailer services have become more attractive and an accepted way to do business with the consumer (i.e. iPod/iPhone/iTunes model);
- That due to certain features such as price and DRMs, illegal P2P systems are still attractive to some consumers; and
- The legality risks of illegal P2P are still limited when it comes to choice by the consumer.

CHAPTER 9 – AN INDUSTRY PERSPECTIVE

9.1 EVALUATING THE INDUSTRY'S PARTICIPANTS

As new commercial business models develop and emerge participation by the Major labels, artists, consumers and software providers will influence and drive developments and the success of various business models and the legal system. It is important to evaluate in this chapter the opinions of the music industry, P2P software providers, consumers and artists. The perceptions and opinions of industry participants are important to evaluate developments in the music industry and the law as they adapt to changing technology. The methodology employed in this chapter is based on gauging opinions from a cross section of consumers, artists, recording labels and enforcement agencies. Interviews provided an insight on developments in the music industry and a mixture of views. Research has been conducted on a qualitative not quantitative basis.

Myers states,

> *"Qualitative research methods were developed in the social sciences to enable researchers to study social and cultural phenomena. Examples of qualitative methods are action research, case study research and ethnography. Qualitative data sources include observation and participant observation, interviews and questionnaires, documents and texts, and the researcher's impressions and reactions."*[1297]

The analysis and findings contained are interpretations of the reality of the music industry and the impact of technology on their business model.

9.1.1 Describing Research

The main basis of the project research was ongoing discussion with participants in the music industry and their views on digital distribution of music. This was supplemented by a set of personal interviews held in Tasmania during the Ten Days on the Island Festival, individual interviews held on the Gold Coast with consumers and phone interviews with artists, managers and a business affairs manager of an independent record label. Unfortunately, after many

[1297] Myers, M., "Qualitative Research in Information Systems," *MIS Quarterly* Vol. 21, No. 2, June 1997.

requests both the Major record companies and P2P software companies declined to participate in interviews because they felt the questions were too sensitive in light of the KaZaA litigation occurring in Australia at that time.

In order to achieve as in-depth analysis as possible the interviewees were selected in order to represent an informed cross section of the music industry and consumers. Consumers that were interviewed were not cited in the research for privacy reasons as they preferred to remain anonymous. All the interviewees listed provided their consent to be noted in the research.

The interviewees who contributed to the research were:

- Mr Marcus Fowler – Business Affairs Advisor for Shock Music.
- Mr Barry Bull – Ex-Sony Music Executive and owner of Toombul Music
- Mr Shannon Noll – Musician (ARIA award winner)
- Mr Simon Bower – Musician
- Mr Rick Szabo – Tour Manager
- Mr Stephen Gregory – Sound Recording Engineer, Lecturer and owner of G-netech an IT solutions and marketing company.
- Mr David Bridie – Musician
- Mr Slava Gregorian – Musician (ARIA award winner)
- Mr Peter Kilpatrick – Manager of the Tasmanian Symphony Orchestra
- Mr Christophe David – Musician/Manager of Les Tres de la Habana (Cuban band)
- Mr Michael Speck – Former Head of the Music Industry Piracy Investigations Unit (MIPI)

9.1.2 Interview Questions

The questions posed are in bold and listed in Appendix 2. A summary of the interviews is listed in Appendix 3.

9.1.3 Analysis and findings

The responses have been compiled and synthesised into this part of the thesis and with no specific relation to the sequence of the questions posed. Besides the ongoing Internet research, interviews and exchange of ideas and information with observers and participants in the world of

online music distribution, the author also attempted to obtain a cross section of opinions from consumers.

The interviews with the participants were conducted in order to gauge opinions only and therefore any quantitative aspects of the sample if provided can not be deemed reliable based on current user's attitudes.

A small sample of 30 consumers were selected to participate in the interviews. The following provides a breakdown of the sample:

- 9 were women
- 21 were men

Consumer's Age

	15-25	25-35	35+
Men	10	9	2
Women	4	4	1

Consumer's Average Income

	Less than $50,000	Between 50,000 - $100000	$100,000.00+
Men	4	15	2
Women	2	6	1

9.1.4 The artist/consumer perspective

The interviews with the artists and consumers have given us an understanding of digital distribution from their point of view. The interviews have both confirmed some expected opinions and revealed a few surprises. Most of the artists are aware of the digital distribution channels, but apparently do not know much more than the common consumer. Starting from this level of knowledge of digital services, the artists' opinions are judged thereafter. There are two groups of artists, the established ones with a record contract, and the unknown ones with either no record deal at all or those that have just been newly signed.

Christophe David an unknown artist does not find much interest in digital services, except for marketing in the form of samples.[1298] His aim is to focus on selling physical records, because it is a familiar channel. He was not aware of what the digital channels actually offer, or what the pros and cons were of the digital medium. Being the manager and a member of the band, he does not have the time or the money to get his band's music distributed, so the easiest way he says is still to launch through a label.[1299] It is very difficult for his band to get noticed on its own. They are looking for alternatives, but have still to find one attractive enough to justify their input of resources whether it be time or money.

Established artists like David Bridie, Shannon Noll and Slava Gregorian are generally open to trying new ways of getting their music heard, and they can afford experimenting. Looking at the current digital services, the artists see this as a complement to their physical sales if they have approved the music being sold digitally.[1300]

One thing all had in common is that they do not find P2P services very attractive. They have taken sides against P2P networks that are normally associated with music piracy. They cannot see any business model that could be lucrative solely on a P2P network.[1301] Seemingly the only alternative to them was to eliminate P2P activity, or at least limit it.

To conclude the artists' interviews, artists do not have much to add to the question of how they want to develop the way of getting their music publicised, either in marketing or in distribution services. Most artists interviewed did not care and actually wanted to leave this to the record companies.[1302] They do not like their situation being dependent on the record companies, but they do not see a direct digital distribution alternative for now other than going through their current record companies.[1303]

The consumers interviewed, on the other hand, generally felt that digital distribution of music was easy and quick to obtain on the Internet which meant they could make their own albums and playlists without having to purchase a full CD for $30.00 from a store just to hear one good song.

[1298] See Interview with Christophe David.
[1299] Ibid. Also see Interview with David Bridie.
[1300] See Interview with Slava Gregorian, Shannon Noll, Simon Bower and David Bridie.
[1301] See Interview with Rick Szabo, Shannon Noll, Simon Bower, Christophe David and David Bridie.
[1302] Ibid.
[1303] Ibid.

Of the sample of consumers that undertook the interviews, twenty-six (20 men and 6 women) had used peer to peer software to download infringing digital music. Only four of the respondent consumers had answered that they had never used P2P software and had never downloaded an infringing file. Of the twenty-six respondents, ten of them (9 men and 1 woman) stated that they would continue to obtain infringing copies for free if they were available rather than making legitimate purchases. The majority of respondents answered that if they liked the music they had obtained illegitimately that they would probably purchase the physical CD. The main demographic interviewed that answered that they would continue to obtain digital music for free was the 15-25 year old age group. The highest percentage of consumers interviewed that answered that they would first obtain music legitimately online before looking elsewhere was the 35+ year old demographic. Price for obtaining legitimate music was the determining factor amongst all consumer participants interviewed as to the choices they made when selecting online digital music. Ease of use, reliability and choice of the business model platform were also contributing factors for consumers.

In summary, many of the consumers were familiar with P2P services and had used them in the past or continue to use them. Most consumers interviewed had agreed that they would prefer to obtain music for free rather than pay.

9.1.4.1 Opinion on the information provided by Artists/Consumers as it relates to current trends

This section provides some of the information from the interviews in combination with some published sources to formulate an opinion of the current trends in the music industry from the artist/consumer perspective.

The traditional route to market has been challenged by the Internet and digital distribution and now does not necessarily apply anymore. The consumer allure of digital music files and digital distribution and its huge popularity might be seen as a shift in power from the music industry to the consumer.[1304] In the first instance, Internet and compression technologies offered a brand new and immediate mechanism through which to access music. MP3 technology when applied globally was, and still is, widely adopted by some disenfranchised artists to promote and exploit

[1304] Ibid.

their work.[1305] Consumers also have benefited by having access to a wide selection and variety of music for free.[1306]

It was suggested by Slava Gregorian that this is just a part of the overall technological revolution that the whole of society finds itself undergoing and that music just lends itself well to be particularly affected. He said,

> *"What we are seeing is a reflection of society, we are witnessing a revolution, a complete change in the way society works. I think record companies are at the forefront of that. I think music and technology mould very well together."*[1307]

The ability to record without the need for expensive studios and mastering facilities is also contributing to the self determining and empowering effects of digital distribution. The established artists now realise that they can manufacture and distribute their music at any time without a record label although feel that it is still necessary to go through a record label because of their increased capacity to provide marketing and promotion which in time may render the previous artist/consumer divide to become mostly redundant.[1308] This inclusive nature of technology and through it a means of self-expression can now be enjoyed by the majority.

> *"Traditionally we had a distinction between fans of music and musicians, in the past if you were in a band you appeared radically different, you had an image and you had a gimmick. As this has receded over the last twenty years we have experienced a cultural turnaround that does not allow such clearly defined cultures within our present media society…people generally have been empowered one way or another via the explosion in digital media and the advent of its distribution over the Internet. So now instead of the musician or the creative individual being in the minority, they have become a majority within our culture."*[1309]

[1305] Interview with Slava Gregorian.
[1306] See Interview with Rick Szabo, Shannon Noll, Barry Bull, Christophe David, David Bridie and Stephen Gregory.
[1307] Interview with Simon Bower.
[1308] Interview with Slava Gregorian.
[1309] Cook, P., *"New Media in Cyberspace 2000"*, Musicdish.com, 6 July 2000, located at http://www.musicdish.com/mag/index.php3?id=1169 (accessed on 8 July 2008).

Huge amounts of unfiltered and unmediated musical works now available on the Internet are competing for potential listener's attention, beyond the scope of the traditional music industry but constituting and defining a large part of the new music industry.[1310]

There is no reason now for unsigned artists to be locked out of the opportunity to reach people who might enjoy their music. Through technology, the record labels are not necessarily the arbiters of good or bad music anymore.[1311] By some accounts the classification of artists as being signed or unsigned is starting to represent a rather antiquated evaluation of their quality and popularity.[1312] The new music industry is determined by the consumer over a number of genres of music which may not have been recorded by any label.[1313]

The Internet becomes a worldwide promotional and advertising tool for artists to have their music discovered. For example, established artists and unsigned bands use MySpace Music to get their songs promoted and connect with fans. Artists like REM, Franz Ferdinand, the Black Eyed Peas and Nine Inch Nails have released albums or tracks on MySpace before the official release in stores.[1314]

Unsigned artists have traditionally developed a following through word of mouth. MySpace, provides unsigned artists and bands instant access to potential fans outside their geographic region. MySpace has become a place where musicians can get their music promoted without the help of a label.

For example, Sandi Thom the singer of '*I Wish I Was A Punk Rocker (With Flowers In My Hair)'* launched to International fame via a series of web-cam concerts from her basement flat. MySpace helped promote the concerts and sell the tickets online.[1315] Sandi Thoms rise to fame has been the subject of much speculation on the Internet. Her claims of Do-It-Yourself

[1310] Interview with Slava Gregorian.
[1311] Beets, R., *"RIAA v Napster: The struggle to protect copyrights in the Internet Age"*, 18 Georgia State University Law Review 507, Winter 2001, p.557.
[1312] Cooke, P., op.cit.
[1313] Ibid.
[1314] Brothers, P., and Layton, J., *"How MySpace Works"*, HowStuffWorks, located at http://computer.howstuffworks.com/myspace3.htm (accessed on 8 August 2008).
[1315] Morton, E., *"I wish I was a punk rocker with MySpace friends to spare"*, CNET.com.au, 1 December 2006, located at http://www.cnet.com.au/mobilephones/phones/0,239025953,339272508,00.htm (accessed on 9 January 2007).

promotion have been criticised as being the construction of a well planned marketing company.[1316]

Bands like Hawthorne Heights, My Chemical Romance and Arctic Monkeys have developed huge followings and gained record label attention via the Internet. The Arctic Monkeys released a single that landed at No. 1 on the UK Music Chart before the band's debut album was released to stores.[1317] My Chemical Romance sold more than one million copies of its 2004 debut CD, and Hawthorne Heights sold more than a half-million copies of its debut CD released the same year.[1318] All of these bands have now signed with record labels, but they had built a considerable fan base on the Internet before they negotiated contracts.

In one case a band's MySpace profile led directly to a record deal. A little-known Californian band called Hollywood Undead appeared on MySpace in June 2005. Within a week, it was No.4 on the MySpace music chart and had 65,000 loyal fans. Six months later, Hollywood Undead signed with a record label.[1319]

Already there are many online sites that aggregate music, most often by genre. Broadband streaming offers a completely new perspective on the nature of music ownership.[1320] The established notion of acquiring music through the purchase of a physical product is superseded by the consumption or downloading of music in real time.[1321] This appeals to the new generation of music consumers because they are the "now" generation and their demands must be satisfied immediately.

The argument being that there will be no need to own a physical product when you can have access to any music you want to hear at anytime, that consumers can access whatever music they want, when they want and in any technological format they want.[1322] Likenesses are drawn between mobile phones, cable TV and the future consumption of media via digital technology. Based on a streaming subscription system consumers will pay for access to media.

[1316] Ibid.
[1317] Brothers, P., and Layton, J., op.cit.
[1318] Ibid.
[1319] Ibid.
[1320] Norman, J., op.cit., p.373.
[1321] Ibid.
[1322] Ibid.

"Music licensing is going to eventually become as big as consumer sales,…. In the long term, the music industry is going more toward music as much as a service as a set of products."[1323]

Certainly, the wide popularity of Apple iPod and iTunes amongst music consumers reflects this new approach and has assisted in facilitating the offering of MP3 players and digital music to the consumer and combining them both as a product and a service.[1324] In conjunction with Apple selling its hardware devices (the iPod) it also provides a legitimate software application to access the iTunes service to download legitimate and licensed MP3 material to consumers for a fee per download. Apple has strategically supplied their downloadable content in a proprietary codec to ensure the licensed content available for download from iTunes:

(a) is protected from copying; and

(b) prevents the crossover of the content to be played on other manufacturer's MP3 players.

Apple has managed where others have failed to provide licensed content to its customers. The success of the Apple model caused Microsoft in September, 2006 to introduce Zunes to the market (an MP3 player and legitimate download service) to compete with Apple.[1325]

The Internet presents perhaps the greatest challenge to strike a balance between the interests of the music industry, artists being justly compensated for their efforts and the interest of the consumers at large in exposure to artistic impression.[1326]

Artists who are unsigned can use the internet to promote and publicise themselves which improves their chances of being discovered by a Major label. Selling music online is only one revenue making channel available to artists. If an artist wants to go beyond the internet to be heard on live radio, MTV and live performances (i.e. tours) then they would need to sign with a label.

[1323] Interview with Marcus Fowler.
[1324] BBC News, *"Strong debut for iTunes for PC's"*, op.cit.
[1325] Gold Coast Bulletin Newspaper, *"Zunes, Microsoft plays Apple's tune",* Weekend Gold Coast Bulletin, September 16-17,2006, p.47.
[1326] Kimrey, B., *"Amateur Guitar Player's Lament II: A Critique of A&M Records, Inc. v. Napster, Inc., and a Clarion Call for Copyright Harmony in Cyberspace"*, 20 The Review of Litigation 309, Spring 2001, pp.319-320.

9.1.5 The music industry perspective

Discussions occurred with only one Business Affairs advisor from an independent label. Therefore, much of the information was obtained from this discussion, interviews with artists and from comments made by music industry representatives representing the Major labels in past media reports. The discussion with the Business Affairs advisor provided information on legislation, licence terms for distribution and future plans for the music industry. The licence terms and tariffs are set, but it seems as if few people are aware of these terms, and even less interested in finding out on their own.

The current digital tariffs are only temporary and are not set in stone. All involved parties (i.e. writers, artists and recording companies) have to agree to allow their material to be digitally distributed on the Internet. It is often the record companies that do not wish to include digital rights in contracts, while performing artists and writers often request that digital distribution be covered.

One reason for this is that the artists and the writers have more to gain than lose from this expansion to digital channels, while record companies want to keep the income generated from physical sales of music in the traditional business model (producing CDs). It was only about 2001 -2002 that music companies even addressed digital rights in their artists' contracts.[1327]

The main cause of losses, according to the record companies, is that of illegal copying which has become easier with music in a digital format.

In the interview with Mr Marcus Fowler stated, *"the record companies are now pursuing a policy of making their product a convenient preferred option so as to render the experience of illegal file transfers an inferior way of obtaining music."*[1328]

Mr Barry Bull an ex-Sony executive and now owner of Toombul Music stores made a prediction suggesting that out of the five Majors only three Majors would be left in a few years. He stated, *"his retail business has realised that physical music such as CDs were passé because the music*

[1327] Interview with Barry Bull ex-executive of Sony Music and owner of Toombul Music.
[1328] Interview with Marcus Fowler.

industry did not adapt very well to change."[1329] Mr Bull felt that changing the focus of his business by consulting and selling DVD home theatres was the future for his business.

To conclude the music industries' interviews, both Mr Fowler and Mr Bull were of the opinion that licensing of digital content was the way forward for the industry. Although not a surprising conclusion, it would appear that this would be the common sense approach for the music industry to ensure it continues to control its profits.

9.1.5.1 Opinion on the information provided by the music industry representatives as it relates to current trends

Below provides some of the information from the interviews in combination with some published sources to formulate an opinion of the current trends from the music industry's perspective.

What the Internet and digital distribution of music has done is to put the established traditional business model into sharp perspective to highlight its failings.

An increasing number of artists such as Steve Albini, Courtney Love, Prince, Matt Johnson, Janis Ian, Chuck D of Public Enemy and Limp Bizkit has publicly brought the attention of the industry's failings to light and espoused the possibilities of independence and self determination offered by the Internet.[1330] The statements from these well known recording artists mean the industry's traditional business model becomes more threatened and the control of the Majors becomes potentially undermined.

The previous courtroom battles have given way to some partial meeting of minds between the two ideologically disparate parties, on the one hand the established record companies with their traditional approach to rights management and on the other the P2P sites with their new models of distribution that challenge their control.

Probably the most monumental move towards acceptance of P2P technology came from BMG on the 31st October 2000. In a unilateral decision partially attributable to their progressive stance on most issues Internet related, BMG struck a strategic alliance with Napster prior to its

[1329] Interview with Barry Bull.
[1330] Dearne, K., *"Singer sparks fury by backing downloads"*, The Australian, 28 November 2002.

bankruptcy. Breaking rank from the other Majors all of whom (including BMG) were suing Napster through the RIAA, BMG's action marked a change in attitude and approach to their once sworn enemy.[1331]

Time Warner President Richard Parsons described Napster during his keynote at the *Plug-In Music Conference* in July 2000 as 'Hijackers', 'Devils' and 'Pirates'.[1332]. BMG adopted a more pragmatic, "if you can't beat' em join' em" type approach, a tiered subscription model offering an improved, more robust and functional service based on a membership scheme through which artists and the record companies could be remunerated.[1333] The move by BMG had radical implications for the whole of the industry. Thomas Middelhoff, chairman and chief executive of BMG at the time stated,

> *"This is a call for the industry to wake up……It is not enough to fight file sharing in the courtroom."*[1334]

Whilst BMG had their own business agenda and strategic motivations for that alliance their actions put a completely new complexion on the possible relationships between the establishment and the new digital distributors.

Huge amounts of time, energy and money have been spent by the recording industry pursuing litigious claims and investigating copy-protection systems such as encryption, watermarking and copy protected CD technology, primarily as a means to lock up content and prevent its access by unauthorised users.[1335]

Digital piracy is not going to disappear completely, although with the introduction of copy-protection technology, its access and use will be restricted.[1336] The recent developments of licensing the majors' catalogues to legitimate online retailers appear to be the way forward for

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[1331] Eliezer, C., *"Beat goes on for Napster"*, BRW, 17 November 2000, p.204.
[1332] Delio, M., *"Napster Slowing Down Labels"*, Wired.com, 25 July 2000 located at http://www.wired.com/news/culture/0,1284,37614,00.html (accessed on 27 July 2008).
[1333] Eliezer, C., *"Beat goes on for Napster"*, op.cit.
[1334] Boehlert, E., *"In (defense) of Napster collusion"*, Salon.com, 2 November 2000, located at http://archive.salon.com/business/feature/2000/11/02/collusion/print.html (accessed on 6 November 2008).
[1335] Zimmerman, D., *"Living without Copyright in a Digital World"*, 70 Alb. L. Rev. 1375, 2006-2007, p.1380.
[1336] Loftin, J., *"Secondary Liability for Copyright Infringement: Why the Courts may be Nearing the End of the Line for Imposing Further Liability on Peer-To-Peer Software Distributors"*, 37 Cumb. L. Rev. 111, 2006-2007, p.112; See also Yu,P., op.cit., p.677.

the recording industry although the technologically secure model is not yet settled or uniform and may never be.[1337] DRMs are discussed earlier in this thesis at Chapter 7.

The recording industry is also focusing on securing their music through DRM technologies and developing viable and useable systems that track how music is being sent through subscription networks in order to compensate labels and artists accordingly.

> *"Putting a lock on the CD or music is not about making a transaction doable, pleasurable and honest. Why put a lock on it when you can put a payment mechanism on it? The first step is an authentication scheme to make sure you know what is being consumed, and [DRM technologies] can do that."*[1338]

9.1.6 Conclusion

Many of the Major labels are now licensing their limited catalogues to trusted online retailers in order to obtain a part of the market share. All the Majors have developed their own proprietary systems that offer users a limited service but these have failed dismally.

The preferred model that appeals to online consumers is a digital distribution system that is easy to use, cheap and contains a combination of Major labels' content. Such models as Apple iPod/iTunes and Microsoft's Zunes are proven examples of successfully providing a cheap and efficient music distribution model to supply content to their proprietary digital audio playback devices. Also to be considered by the Major labels are the e-commerce possibilities to sell physical products such as T-shirts and other merchandise directly to fans, via online retail services. Therefore, providing the Major labels with a further revenue stream for supplying value added goods to the consumer assisting in cross subsidising their costs of sound track production. The music labels can further obtain revenue streams by deriving licence fees from selling DRM free music and from selling advertising on advertising driven digital distribution websites.

[1337] Roth, M., op.cit.

[1338] Quote from Peter Cassidy, Director of Communications for the security company Blue Spike from article by Brown, J., *"The jukebox manifesto"*, Salon.com, 13 November 2000, located at http://archive.salon.com/tech/feature/2000/11/13/jukebox/index1.html (accessed on 6 February 2008).

In the writers' view, there will still be a demand for physical offline product for the foreseeable future. The major record companies are the best-equipped organisations to meet this need. Not only do they have the business know-how in manufacturing, marketing, distributing and selling records but also they have their back catalogues which give them ongoing royalties.[1339]

The Majors are also starting to take more control over the Internet and the profile that artists enjoy there. Until structures of new revenue streams appear that enable artists to develop and thrive without label assistance, and as long as the labels continue to insist on owning the rights to music in exchange for monetary advances and the marketing infrastructure that they provide, the necessity to continue the established practice of signing to a record company will remain the reality.

It is clear that Major labels have their place in the music industry. The Internet is but one way an unsigned artist can promote and expose their music to a potential greater audience, but it is more likely than not, that artists require the monetary backing of a label if they wish to gain greater exposure for touring their live performances, being heard on live radio or being seen on MTV and will continue to require the labels to intermediate these media outlets. The internet is an important promotional tool for emerging artists but it has not developed as a substitute direct vending model for artists which by passes the labels.

In conclusion it seems clear that in the new environment with legal digital distribution, the traditional way of developing and selling music through the Major labels with promotional and marketing power will continue.

The increased popularity of digital audio file sharing and its potential to disintermediate the Major labels has not been fulfilled to the extent of removing the Major labels from the supply chain, but rather it has permitted new channels for the artists to have their music exposed where this may never have occurred under the traditional distribution model.

In the next chapter the writer will analyse the effectiveness of recent amendments to the copyright law.

[1339] Economist.com., op.cit.

CHAPTER 10 – IS FURTHER LEGISLATIVE REFORM NECESSARY?

10.1 IS THE COPYRIGHT ACT EFFECTIVE?

The principle issue that must be considered is whether the *Copyright Act 1968* (Cth) (Copyright Act) is effective; taking all the recent amendments and judgments into account in the context of the current state of the music industry, technology and consumer use and demand.

The current Copyright Act as amended has undergone significant change since the *Copyright (Digital Agenda) Amendment Act 2000* (Cth) (Digital Agenda) was introduced in 2000 and has become an extremely complex piece of legislation. The Digital Agenda amendments were intended by government to convert a technologically specific Act into a technologically neutral Act. However, the amendments to the Copyright Act as a result of the FTA have initiated a number of changes to broaden the law aimed at certain industries and to cover specific technologies such as P2P networks. Ironically, the numerous amendments introduced have in effect made the Copyright Act quite prescriptive and adapted to specific technological imperatives.

The broad ranging amendments to the Copyright Act were further bolstered by the CAA introduced into parliament on 19 October, 2006. The amendments served to strengthen the power of copyright owners through the introduction of a series of new criminal offences and extend the prohibitions on circumventing technological protection measures. They balance this with the introduction of some narrowly defined fair dealing rights and limited exceptions to copyright infringement.

10.1.1 The criminalisation of copyright infringement

The further ramping up of criminal responsibility for copyright infringement follows a trend in the US of prosecuting copyright infringers.[1340] This is a major shift for Australian copyright law which has primarily remedied infringement with civil liability, such as damages. The criminalisation of copyright infringement over the past few years makes sense when we think of

[1340] Natividad, K., *"Stepping it up and taking it to the Streets: Changing Civil and Criminal Copyright Enforcement Tactics"*, 23 Berkeley Tech. L.J. 469, 2008, p.479.

organised crime syndicates producing and selling large quantities of illegitimate CDs and DVDs. However, it is extreme for consumers of P2P technology to be labelled a criminal for inadvertently distributing an infringing copy of a song in a way that "affects prejudicially the owner of the copyright".

The introduction of strict liability offences (i.e. meaning just doing the act regardless of intent is enough) and summary offences that could lead to imprisonment where someone is merely reckless in infringing, makes copyright a minefield for copyright users, particularly when users encounter copyright material nearly every day via the Internet and the use of P2P technology is so widespread that it does not appear criminal at all.[1341]

Add to this the remodelled evidentiary presumptions that favour copyright owners (in many cases large multinational corporations) and users must think twice before accessing material via the Internet.

The Internet has shown that there is an enormous profit in services that provide users with the ability to access and use information. Some of the largest corporations are information service companies like Google, eBay and Amazon.com. These businesses were innovative and provided interesting new services; yet the landscape has changed and any new software company starting up trying to emulate similar software-based business models after 1 January, 2007 will be at risk of criminal prosecution or paying out substantial on the spot fines. For example, Google is currently defending litigation in the US for its Google book search project.[1342] Under the Australian Copyright Act the copying of copyrighted literary works and allowing users to search those texts or even providing hyperlinks to those works could be deemed to be infringing copyright on a commercial scale and may attract the criminal provisions under the Act.

Furthermore, it is not just large companies that can get caught by the criminal provisions under the Act. Everyday acts by individuals are also prone to the criminal offences under the Act. For example, it is also a criminal offence to permit a sound recording, to be heard in public at a place

[1341] Depoorter, B., and Vanneste, S., *"Norms and Enforcement: The Case Against Copyright Litigation"*, Oregon Law Review, Vol. 84, No. 4, 2005, p.1175.
[1342] Gilbert, A., *"Publishers sue Google over Book Search Project"*, CNET news.com, 19 October 2005, located at http://news.cnet.com/Publishers-sue-Google-over-book-search-project/2100-1030_3-5902115.html?hhTest=1 (accessed on 25 October 2008).

of public entertainment.[1343] It can be a criminal offence for playing a radio too loud at a park as this may encounter being issued with an infringement notice.

Innovation relies on diversity, experimentation and exchange and the new amendments prevent this by criminalising many of these activities.

10.1.2 User rights and liabilities

Fair dealing and the limited exception to copyright infringement provisions contained in the Copyright Act allow people to, for example, reproduce and communicate material in certain circumstances without permission from the copyright owner. They are seen by many as an engine of free expression as well as a driver of creative innovation.

The Australian fair dealing provisions are very narrow in scope compared to the US and by not adopting a broader fair use provision, may further disadvantage users.

The Federal Government has granted consumers some latitude by introducing some new exceptions, including exceptions that will legalise time shifting and format shifting. However, even these exceptions only apply in specific circumstances and are complex.

One subset of the exceptions, which includes the long-overdue exception to allow parody and satire, adopts almost verbatim the wording of the controversial "three-step test" created under the international Berne Convention. This means they will only apply where the person is able to prove that their actions are a "special case", that they do not conflict with normal exploitation of the copyright material, and that they do not unreasonably prejudice the legitimate interests of the copyright owner.

10.1.3 Technological protection measures

The recording industry can protect their copyrighted works and discourage digital distribution by implementing technological protection measures. Such technology includes the use of DRM and CD Corrupting technologies.

[1343] See s.132AN of the Copyright Act 1968 (Cth).

The problem with using technological mechanisms to protect a copyrighted work is that there is likely to be a technological counter measure created and used by infringers to "get around" the fix.[1344] Therefore, any technological protection is likely to be temporary or of limited effect.

In Australia, the amendments to the Act have addressed such counter measures by making it illegal to create anti-circumvention devices and to remove Electronic Rights Management Information (ERMI).

The practice of creating anti-circumvention devices or removing ERMI may be discouraged in Australia in light of the amendments to the Act but it will certainly not be stamped out. It remains very difficult to monitor each individual device created and distributed on the Internet to circumvent technological protection measures contained in music files.

Under the FTA, Australia agreed to expand liability for circumventing technological measures that are designed to protect copyright. Previously activities such as making, dealing and providing devices that allow circumvention had been the focus of liability; now the act of circumventing a technological protection measure (TPM) could lead to a significant fine.

The 2005 landmark High Court case of *Stevens v Sony* highlighted that anti-circumvention law requires that to receive protection under copyright law a TPM had to "prevent or inhibit copyright infringement". At that time any technology used by a copyright owner "in connection with the exercise of copyright" would have been protected - even if it did nothing to stop copying.

The *Stevens v Sony* principle has now been discarded by the legislation with amendments to the FTA and the law as currently drafted will give copyright owners wide-ranging powers to restrict the use of copyright materials as they see fit. Apart from specific exceptions for the regional coding of DVDs, and the restriction of generic goods, there is now considerably greater scope for copyright owners to control the habits and economy of everyday consumers.

[1344] Ginsberg, J., *"Copyright and Control over New Technologies of Dissemination"*, 101 Columbia Law Review 1613, November 2001, p.1642.

10.1.4 CSP Liability

The new amendments to CSP liability mirror the US style take down procedure regime and also create major headaches for CSPs. The new amendments mean that CSPs may be exposed to liability for copyright infringement from copyright owners if they do not act expeditiously to take down alleged infringing music files. Secondly, CSPs may be exposed to liability from their customers for breach of contract, if they remove content expeditiously upon notification which material is later proven to be legitimate. Thirdly, the amendments are able to be abused by copyright owners. Finally the amendments severely swing the balance in favour of the copyright owners. See more detailed discussion referred to in section 6.5 of this thesis.

10.1.5 The status of further Copyright reform

Australia has effected all the amendments which the FTA required. The voluminous amendments already introduced mean that further reform is unlikely at this stage. The courts will now have the unenviable task of having to interpret the complex legislation. Not all legislation is perfect and significantly a number of areas may require further amendment in the future.

In the writer's view, some further amendments to the Copyright Act may include:

- clarifying the take down procedure for infringing copyright material by ensuring that the Copyright owner can prove authorship before issuing a takedown notice;
- establishing a Copyright Code on CSP responsibility and piracy;
- providing for a flexible fair dealing provision rather than the narrowly defined fair dealing provisions currently implemented in order to encompass future technologies;
- clarifying users' rights in the private copying exception particularly for format shifting and time shifting provisions to allow multiple copies to be copied in different formats;
- amending the definition of ACTPM and TPM so as to link the wrongful act to "preventing or inhibiting copyright infringement" and amend the definition of "controls access"; and

- introducing fair dealing defences or exceptions for those who wish to make 'fair dealings' of copyright material protected by TPMs.

10.1.6 Is the Australian copyright law as amended effective?

The Internet and Copyright law are particularly ill-suited to one another. One is designed to give as much information as possible to everyone who wants it; the other allows authors, artists and publishers to earn money by restricting the distribution of information. Copyright law should also encourage development of effective new distribution technologies and resultant business models. Effective Copyright law occurs when a balance is struck between the interests of copyright owners and copyright users.

Australian Copyright law has always been directed at balancing the rights of copyright owners with those of copyright users so as to promote creation, innovation and improvement. Ultimately, such a balance is crucial to enabling the Australian public to reap the benefits of an information-rich public domain whilst at the same time providing recognition and rewards for creators.

This basis for the existence of Copyright law has been translated into a set of exclusive rights for copyright owners, which have been tempered with the defence of 'fair dealing'. Fair dealing exists to balance the rights of copyright owners, by allowing access to works where social aims outweigh private rights, and where it would be costly to purchase such works for the purposes of research, development, and improvement.

In the context of digital music distribution over the Internet, the copyright reforms have arguably gone too far in trying to protect the interests of the Major labels and the music industry.[1345] With the introduction of the FTA amendments in 2005, Australian copyright law has become very narrow and specifically adapted to present day technologies and business models. For example, if a company could earn enough revenue from the advertising driven free download business model to pay licence fees to the Major labels then copy protection technologies become redundant.

[1345] Vaidhyanathan, S., *"The Googlization Of Everything And The Future Of Copyright"*, 40 U.C. Davis L. Rev. 1207, 2006-2007, p.1210.

However, the FTA amendments go further and copy protection technologies like DRM are backed up with legal rules, when DRMs have been proven not to work and are not wanted by either the users or some labels.[1346] For example, the Major labels are now moving away from their current business model of selling digital sound files incorporating DRM to DRM free digital music. Nevertheless, TPM and ACTPM law will remain even if DRMs become obsolete. The FTA amendments to the Australian copyright law were clearly intended to bolster the armoury of copyright owners against specific technologies such as P2P file sharing.

The changes in law will have a detrimental impact upon consumers, CSPs, website owners and developers of software. It is the consumers, CSPs, website owners and developers of software that will bear the burden of more stringent laws in favour of the Major labels, including extension of the copyright term by 20 years, broadening of the definition of what constitutes a copy i.e. change in the definition of 'material form', broadening the definition of TPMs to include "controlling access", increase in CSPs obligations to prevent infringement activities and tougher criminal and civil penalties for breaches, including incidental, minor and non-commercial breaches of Copyright.

The introduction of heavier civil and criminal penalties into the Copyright Act via the FTA amendments provides one of three possible scenarios emerging:

1. A restrictive legal environment with voluminous regulation that if strictly enforced against every individual for minor infractions would make copyright ineffective;[1347]

2. A restrictive legal environment where laws are unenforced which defeats the purpose of the amendments being made in the first place (i.e. not to criminalise ordinary Australia citizens but to have Australian citizens respect the laws) making copyright ineffective;[1348] or

3. A restrictive and extensive copyright regime to discourage infringers and be used by copyright owners where and when it seems appropriate.

[1346] Holahan, C., op.cit.; See also Burrows, P., and Grover, R., *"Universal Music takes on iTunes"*, Business Week, 22 October 2007, located at http://www.businessweek.com/magazine/content/07_43/b4055048.htm (accessed on 30 November 2007); see also Ciolli, A., *"Lowering the Stakes: Toward a Model of Effective Copyright Dispute Resolution"*, 110 W. Va. L. Rev. 999, 2007-2008, p.1010.
[1347] Fitzgerald, B., and Coroneos, P., "*Discuss the Copyright Amendment Bill 2006*", Podcast from QUT on 22 November 2006, located for download at http://www.ip.qut.edu.au/node/42 (accessed on 15 January 2007).
[1348] Ibid.

In the writer's opinion the most likely scenario adopted by regulators would be point three above. The immediate issue facing copyright owners are the challenges that technology poses to the viability of the new laws as new developments in technology occur so rapidly. Many of the new amendments to the *Copyright Act 1968* (Cth) may become superfluous and outdated very quickly.

With the introduction of the FTA amendments in 2005, Australian copyright law has significantly changed in favour of the Major labels and copyright owners. The FTA significantly strengthened the rights of the Major labels and copyright owners, whilst at the same time failing to match this with the protection of the rights of users.

In order to redress the balance, amendments to the fair dealing provisions in Australia remained limited, narrow and prescriptive.[1349] One possible response is that the fair dealing provisions be amended to provide for an open ended fair use provision similar to the US, where there the Courts have power to find new uses 'fair' as and when they arise.

A further issue is that the very narrow, specific and prescriptive amendments to the Copyright Act expose the Act to future amendment to cover the introduction of new technologies as they emerge. Thereby, they defeat the Government's initial objective of technological neutrality and leaving copyright ineffective.

[1349] Weatherall, K., "*Of Copyright Bureaucracies And Incoherence: Stepping Back From Australia's Recent Copyright Reforms*", Vol 31, No. 2, Melbourne University Law Review, 2007, pp.30-31 download a document at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1091076 (accessed on 9 February 2008).

CHAPTER 11 - CONCLUSION

11.1 AND THE WINNER IS...

Further advances in technology mean that digital music infringements have been, and will probably continue to be, more effectively dealt with outside the legislative and judicial arenas. Control through such methods as licensing agreements, DRM technologies and technological counter measures is more effective in protecting the digital music owners' copyright. However, this very method of locking up content and preventing access has been very unpopular amongst users who wish to play, for example, a digital DRM embedded file on their digital audio player only to find that the file will not play because the digital audio player will not accept the DRM or proprietary codec format. Furthermore, most digital distribution models considered in this thesis pose many problems with regards to interoperability of DRM technologies.

It is particularly striking that during the period of research for this thesis that both Australian copyright law and the music industry's digital distribution business models have done a full circle of progression to end up where they first started.

To explain – Australian copyright law was seen as technologically prescriptive prior to the Digital Agenda reforms in 2000 (the purpose then was to amend the Act to become technologically neutral to take account of technological change). The round of FTA amendments has now returned the Act to be technologically specific again as has been highlighted previously in this thesis.

Additionally, the music industry battled to shut all the P2P software sites down that were offering open MP3 format digital files (subsequently promoting their own proprietary sites to consumers by legitimising the music downloads for a fee and incorporating DRM technologies). Then after attempting to lock up content with DRM technologies, the Major labels started to offer music as DRM-free digital sound files and licensing their content to advertising driven free download websites like Qtrax and Spiralfrog (sounds a bit like Napster again). The only difference is they charged a small fee for the privilege. One must ask the question what was the point of shutting Napster down in the first place? In hindsight it would have been less costly for the music industry to have proceeded to embrace the new technology and partner or acquire them

to provide extensive music catalogues for a small fee to consumers, rather than wasting several years and millions of dollars protecting their traditional business model through litigation, only to end up rolling out quite similar distribution mechanisms.[1350]

Let's now turn our attention to the cases that shaped the interpretation of Australian copyright law in relation to digital distribution. The first digital sound file dispute in Australia arose in *BMG v S.11*[1351], and not unlike many other disputes that have occurred overseas, this matter was settled out of court. It does not provide a substantive examination of whether the facts alleged amounted to a copyright infringement.

The next case in Australia was the criminal case against *Lee, Tran and Ng*[1352] ending with the three students pleading guilty and receiving suspended sentences for music piracy. The provisions of the Act were not in dispute nor challenged in this case.

Further developments in the *Sony Music Entertainment (Australia) Ltd & Ors v. The University of Tasmania & Ors*[1353] case provided no clear guidance with respect to copyright infringement because the case thus far dealt only with obtaining discovery orders and access to the Universities networks to obtain evidence whether the Universities authorised or aided and abetted copyright infringement.

In *Universal Music Group & Ors v. Cooper & Ors*,[1354] the Federal Court held the proprietor of the website (Cooper) liable for authorising copyright infringement by knowingly allowing others to place on his website hyperlinks to infringing MP3 music files and encouraging website users to access the infringing files via the links.

[1350] Hayward, J., *"Grokster Unplugged: It's Time to Legalize P2P File Sharing"*, Selected Works, 2007, located at http://works.bepress.com/cgi/viewcontent.cgi?article=1000&context=john_hayward (accessed on 27 November 2008), p.15.
[1351] See Creed, A., "*Record label Threatens Australian Web Site Over Song*", Newsbytes, 25 August 2000, located at http://newsbytes.com/pubNews/00/154197.html (accessed on 3 October 2005).
[1352] *Commonwealth Director of Public Prosecutions v. Le, Ng and Tran* (Local Court NSW, Chief Magistrate Graeme Henson, 18 November 2003).
[1353] *Sony Music Entertainment (Australia) Ltd & Ors v. The University of Tasmania & Ors* [2003] FCA 532; [2003] FCA 724; [2003] FCA 805; [2003] FCA 929.
[1354] *Universal Music Group Australia Pty Ltd & Ors v. Cooper & Ors* [2005] FCA 972 (14 July 2005).

The benchmark case which attracted significant headlines in Australia was the *Universal Music Australia Pty Ltd & Ors v. Sharman Licence Holdings Ltd & Ors.*[1355] The Federal Court held that Sharman Networks had contravened the Copyright Act 1968 by authorising the users of its KaZaA software to make copies of sound recordings and communicate the recordings to the public without the licence of the copyright holders.

Universal Music Group & Ors v. Swiftel Communications Pty Ltd & Ors[1356] was to be the first case to test the new amendments to the *Copyright Act* under the *US Free Trade Agreement*. The music industry alleged that Swiftel's employees and customers created a BitTorrent file-sharing hub to host thousands of pirated sound and video recordings. However, like many cases before it, the matter was settled out of court. Details of the settlement were sealed.

The *Sharman* and *Cooper* cases were significant decisions for digital sound recordings, ISP's, web site operators and P2P software technology providers. These decisions set precedent and provide guidance to the courts concerning interpretation of the Act prior to the FTA amendments taking effect in Australia. Furthermore, the judicial interpretation of authorisation liability in the *Sharman* and *Cooper* cases makes certain intermediaries such as software providers valid targets of sound file copyright owners and the Major labels. This is a more significant and beneficial target than the millions of end users guilty of copyright infringement using P2P software.

The music industry in general has in the meantime also learned it can benefit from concentrating on new business models rather than investing in the old ones. It can not be denied that commercial music piracy (such as producing and selling counterfeit CD's) is a problem and should be prosecuted. While large-scale online sharing of copyrighted material is illegal, many P2P applications are not inherently illegal by nature, and could also serve as a foundation for new legitimate ways of making money with music or for general interaction and data sharing on the internet. Additionally, new studies indicate that the actual loss of sales is much smaller than usually claimed.[1357]

[1355] *Universal Music Australia Pty Ltd & Ors v. Sharman License Holdings Ltd & Ors* [2005] FCA 1242 (5 September 2005).
[1356] *Warner Music Australia & Ors v. Swiftel Communications Pty Ltd & Ors* [2005] FMCA 627 (16 March 2005).
[1357] Oberholzer, F., and Strumpf, K., *"The Effect of File Sharing on Record Sales: An Empirical Analysis"*, Technical report, University of North Carolina, March 2004, p.24, located at http://www.unc.edu/~cigar/papers/FileSharing_March2004.pdf (accessed on 3 July 2008).

The statistics that are used to lobby government to change legislation are highly questionable, starting from the business figures and ending with the concluded loss of revenue.[1358] Promising new business models such as Apple's iPod/iTunes show that it is possible to make money on the Internet, and that users can be offered a hardware solution and a service that is not overly restrictive but still effective enough to avoid large-scale illegal exploitation.[1359]

The pilot study undertaken illustrated that industry participants and users concur that it is consumers that will dictate the use of technology. Most industry participants are not in favour of free riding but consumers would be prepared to accept legitimate business models if they are reliable and cheap business model that provided choice, reliability and quality.

From the consumers and industry participants' interviews undertaken in this thesis, the preferred model that appeals to online consumers is a digital distribution system that is easy to use, cheap and contains a combination of Major labels' content. Such models as Apple iPod/iTunes and Microsoft's Zunes are proven examples of successfully providing a cheap and efficient music distribution model to supply content to their proprietary digital audio playback devices. Also to be considered by the Major labels are the e-commerce possibilities to sell physical products such as T-shirts and other merchandise directly to fans, via online retail services. Therefore, providing the Major labels with a further revenue stream for supplying value added goods to the consumer assisting in cross subsidising their costs of sound track production. The music labels can further obtain revenue streams by deriving licence fees from selling DRM free music and from selling advertising on advertising driven digital distribution websites.

In the writers' view, there will still be a demand for physical offline product for the foreseeable future. The major record companies are the best-equipped organisations to meet this need. Not only do they have the business know-how in manufacturing, marketing, distributing and selling records but also they have their back catalogues which give them ongoing royalties.

While at present a universal business model has not been adopted that will become the accepted standard that will move the music industry into the era of the Internet, the writer is confident that the current litigation will subside now that certain significant legal issues are resolved and now

[1358] Ibid.
[1359] Frith, D., *"Jobs' online music store"*, The Australian, 6 May 2003.

that the thinking has moved from protecting the old ways to discovering and embracing new ways of digital distribution. Fans, writers, performers and the entire music industry stand to benefit from a properly managed online music distribution model.[1360]

With the introduction of the FTA amendments in 2005, Australian copyright law has significantly changed to be a prescriptive regime predicated upon certain industries and technologies. The FTA significantly strengthened the rights of copyright owners, whilst at the same time failing to deal adequately with the rights of users. This is of particular concern given that Australia is a net importer of intellectual property, and therefore will be particularly disadvantaged by laws skewed in favour of rights owners, in the context of a bi-lateral agreement with a huge Intellectual Property producer such as the US. There is great risk to software manufacturers and individuals if they get it wrong, even innocently, as they may be faced with civil or even criminal sanctions.

Furthermore, copyright reforms were implemented quickly in order to meet Australia's obligation under the FTA with little time for public review and comment. The copyright amendments have been too reactive to specific industry problems. The copyright amendments are too complex and too heavy handed particularly with the introduction of civil and criminal liability for breaches, including incidental, minor and non-commercial breaches of Copyright.

The copyright reforms are specific to certain technologies which go against the original intention of the Digital Agenda reforms to make the Copyright Act technologically neutral. Finally, if the reforms are intended to be enforced then it criminalises a lot of ordinary Australians for incidental and minor infringements. If the intention of the reforms were merely symbolic and not intended to be enforced then the new reforms make Australian copyright law ineffective.

Although the opponents in this Battle Royal have fought many fights so far with many wins and losses under their belts they continue to carry the battle scars of the many years of turbulence. Earlier on the winners appeared to be the consumers, now the tide has changed and control has been wrestled back by the music industry with consumers forced to accept legitimate licensed services. However, the recording industry has lost out considerably in that their profit margins have been flat since the traditional model has failed to satisfy consumers.

[1360] Simmons, S., *"Digital killed the recording star?"*, Media & Arts Law Review, Vol. 4, No. 2, June 1999.

The recording industry have also seen the benefits of increased profits in licensing their repertoires for digital downloads and are now competing more effectively against music pirates. Nonetheless, illegal music distribution continues and it may be impossible for the music industry to stamp it out completely.[1361]

Since all of the FTA amendments have now been introduced into the Copyright Act and the high profile litigation cases in Australia have come to an end, the writer is of the view that this is the perfect time to end the period reviewed in this thesis. The writer is confident that further statute law developments will occur, probably in the areas of clarification and further fair dealing exceptions.

One cautionary word to the music industry - now is the time to accept change and consider licensing their catalogues to all legitimate third parties (including P2Ps)[1362], and adopt digital distribution models that are flexible, affordable, compatible and user friendly to consumers. If not, the music industry will be left behind by new and unforeseen technological developments of the future.

[1361] Reardon, M., *"Oops! They're swapping again"*, CNET News.com, 16 January, 2004, located at http://news.com.com/Oops+Theyre+swapping+again/2100-1027_3-5142382.html (accessed on 11 February 2008).
[1362] Vandore, E., and Veiga, A., "*Qtrax Debut on Hold Amid Licensing Snag*", The Sydney Morning Herald's smh.com.au, 29 January 2008, located at http://news.smh.com.au/qtrax-debut-on-hold-amid-licensing-snag/20080129-1onm.html (accessed on 4 May 2008).

APPENDIX 1

1. Summary of Cases Against P2P Software Providers

(a) RIAA v MP3.com[1363]

This law suit claimed MP3.com's service allowed users to access online copies of music they had purchased represented copyright infringement because MP3.com did not obtain a license to make the copies that formed its online archive.[1364] MP3.com claimed copies were for personal use only and no license was required. Court ruled in favour of RIAA, holding that MP3.com's copying of recordings infringed Copyright.

On June 9, 2000, Warner Music and BMG reached an undisclosed settlement and formed a licensing agreement allowing future use of RIAA's music libraries on MP3.com's service. Although the licensing terms were not disclosed, they are expected to provide RIAA between $75 million to $100 million in total payments or $11 million a year based on per-play fees. Sony Music Entertainment and EMI have also settled, with Sony agreeing to the payment of an undisclosed amount in addition to entering into a non-exclusive license for the use of Sony's songs.[1365]

On August 31, 2000 The court ruled that MP3.com knowingly violated copyrights of Universal, the sole remaining defendant and assessed damages of $25,000 per CD. Universal estimates that MP3.com made approximately 10,000 albums available to users.[1366] In November of 2000, Universal settled with MP3.com for US$53.4 million.[1367] In *UMG Recordings v. MP3.com, Inc.*,[1368] although the case is commonly referred to as *RIAA v. MP3.com*, the RIAA was not a named plaintiff.

In January 2000, UMG Recordings sued for copyright violations based on defendant's My.Mp3.com service allowing subscribers to download and listen to songs over the Internet.[1369] The service requires that subscribers "prove" ownership of the song they intend to access by inserting their copy of the CD into a CD-Rom drive or by purchasing the CD from

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[1363] *RIAA v. MP3.com* 2000 U.S. Dist. LEXIS 5761 (S.D.N.Y. 2000).
[1364] Clarke, D., and Peers, M., *"Record Companies, Artists Oppose New Service for Tunes on the Web",* Wall Street Journal, 1 March 2000, located at http://www.boondogs.com/press/wsj/index.html (accessed on 22 June 2005).
[1365] Glasebrook, S., *"'Sharing's Only Fun When It's Not Your* Stuff*': Napster.com Pushes the Envelope of Indirect Copyright Infringement",* 69 University of Missouri at Kansas City Law Review 811, Summer 2001, p.842.
[1366] Hill, R.,. *"Pirates of the 21st Century: The Threat and Promise of Digital Audio Technology on the Internet"*, 16 Santa Clara Computer and High Technology Law Journal 311, May 2000, p.336.
[1367] Glasebrook, S., op.cit.
[1368] *UMG Recordings v. MP3.com, Inc* .No. 00 Civ. 0472 (S.D.N.Y. filed Jan. 21, 2000).
[1369] Lange, M., *"Digital Music Distribution Technologies Challenge Copyright Law: A Review of RIAA v MP3.com and RIAA v. Napster"*, 45 Boston Bar Journal 14, March/April 200, p.30.

cooperating online retailers. [1370] The court found this service makes "a presumptive case of infringement" on its face and is not protected by the fair use doctrine. [1371]

(b) RIAA v Aimster[1372]

On the 2nd January 2001, RIAA filed suit against Aimster, a Napster clone. The US District Court heard the matter and granted a preliminary injunction against the file swapping site Aimster (also known as Madster).[1373] Aimster had lost an earlier battle with AOL Time Warner over the domain name www.aimster.com.[1374]

The Court's decision on the 30th October 2002 followed its ruling on September 4th 2002 granting the record companies' request for a preliminary injunction. In that prior ruling, Aspen J, described the Aimster system as a service whose very raison d'etre appears to be the facilitation of and contribution to copyright infringement on a massive scale.[1375]

After issuing that opinion, the Court asked for proposals from the parties for the language of the injunction. The record companies and music publishers submitted a proposal that the Defendants opposed. However, the Defendants did not submit their own proposal, arguing that it was impossible to filter out infringing recordings.[1376] The Court adopted the record companies' and music publishers' proposed injunction in full, outlining the roadmap which Aimster had to follow to halt the massive copyright infringement it facilitated.[1377]

Aspen J, ordered that Aimster implement filtering technologies so that it did not directly, indirectly, contributorily, or vicariously infringe copyrighted works over its network.[1378]

Among other points, the Court Order set forth the following:

- Aimster must immediately prevent its users from uploading and downloading copyrighted works or it must shut down its operations until it can do so.
- Aimster must employ technological measures to prevent copyright infringement.
- Aimster must keep the Court updated on its efforts to prevent infringement.[1379]

[1370] Anestopoulou, M., *"Challenging Intellectual Property Law in the Internet: An Overview of the Legal Implications of the MP3 Technology"*, Information and Communications Technology Law, Vol. 10, No. 3, 2001, p.321.
[1371] Harmon, A., *"Copyright and Copying Wrongs: A Web Rebalancing Act"*, The New York Times, 10 September, 2000, located at http://www.nytimes.com/2000/09/10/weekinreview/10HARM.html (accessed on 12 September 2008).
[1372] *RIAA v. Aimster* 2001 U.S. Dist. LEXIS 19135; 334 F.3d 643 (7th Cir. 2003).
[1373] Zimmerman, E., "*P2P File Sharing: Direct and Indirect Copyright Infringement",* Florida Bar Journal, Volume 78 Issue 5, May 2004, located at http://www.floridabar.org/DIVCOM/JN/JNJournal01.nsf/76d28aa8f2ee03e185256aa9005d8d9a/a79cab7e1a590ea585256e7f005f57d3?OpenDocument (accessed on 17 July 2008).
[1374] Ibid.
[1375] Ibid.
[1376] Festa, P., *"Court: Anonymous P2P no defense"*, CNET News.com, 30 June 2003, located at http://news.zdnet.com/2100-1009_22-1022462.html (accessed on 8 July 2005).
[1377] Borland, J., *"RIAA sues Aimster over file swapping",* CNET News.com, 25 May 2001, located at http://news.com.com/2100-1023-258259.html?legacy=cnet (accessed on 15 June 2008).
[1378] *RIAA v. Aimster* 2001 U.S. Dist. LEXIS 19135; 334 F.3d 643 (7th Cir. 2003).
[1379] Zimmerman, E., op.cit.

Two months after the preliminary injunction was ordered against Aimster, the P2P network was again brought before the US courts by the recording industry for contempt of the court order. The US District Court held that Aimster did not do anything to filter out the infringing copies from its network.[1380] Since then Aimster (or Madster as it is now known) has incorporated filters but has filed for bankruptcy. It is still in service at www.madster.com, albeit hanging on by a thread.

(c) RIAA v Audiogalaxy[1381]

On the 24th May 2002, RIAA filed a copyright lawsuit against Audiogalaxy. Filed in the Federal Court in New York, the suit charged that Audiogalaxy's efforts to filter access to copyrighted songs were ineffective. As a result, free-ranging access to copyrighted works through the system went unchecked.[1382]

On 18 June 2003, Audiogalaxy reached a legal settlement with the recording industry agreeing to obtain permission from copyright owners before allowing people to swap copyrighted songs through its P2P service.[1383]

Audiogalaxy agreed to pay the recording industry an undetermined amount of money to settle the suit. Although the settlement cleared the way for Audiogalaxy to leave its legal headaches behind, it raised other concerns over the viability of the company's future.[1384]

(d) RIAA v Scour Inc[1385]

On 13 July 2000, RIAA filed a law suit against Scour Inc. Like its technological cousins Napster and MP3.com, Scour was ensnared in costly legal challenges. It had to fight to stave off a copyright infringement suit brought by the Motion Picture Association of America (MPAA), the Recording Industry Association of America (RIAA) and the National Music Publishers Association (NMPA).[1386]

The suit took its toll, siphoning considerable time and resources from the company. Three months later Scour filed for bankruptcy. In a brief statement that spelled out some of the reasons why it was seeking bankruptcy protection, executives acknowledged that the move would help ensure its continued operation in the face of a "burdensome" lawsuit.[1387] Scour became a casualty of the battle against P2P network systems and no longer operates.

[1380] Ibid.
[1381] *RIAA v. Audiogalaxy* S.D.N.Y., 02CV-3999 (2002).
[1382] Borland, J., *"Audiogalaxy in RIAA crosshairs",* CNET News.com, 24 May 2002, located at http://news.com.com/2100-1023-922729.html (accessed on 25 August 2008).
[1383] Menta, R., *"RIAA and Audiogalaxy Settle"*, MP3newswire.net, 18 June 2002, located at http://www.mp3newswire.net/stories/2002/agsettle.html (accessed on 28 June 2008).
[1384] Sayer, P., *"Audiogalaxy napstered"*, Australian PC World, 1 August, 2002, p.14.
[1385] *Twentieth Century Fox v. Scour Inc* No. 00-5385 (S.D.N.Y. filed June 20, 2000).
[1386] Greene, T., *"MPAA, RIAA sue Scour over copyrights"*, The Register, 24 July 2000, located at http://www.theregister.co.uk/2000/07/24/mpaa_riaa_sue_scour_over/ (accessed on 14 February 2001).
[1387] Ibid.

(e) RIAA v iMesh[1388]

After Napster and the MP3.com dispute, the largest file swapping service was an Israel based P2P network called the iMesh service. On April 6 2001, RIAA sought legal advice to claim jurisdiction against the Israeli company. After RIAA's countless requests of iMesh, the company decided to disable the downloads of files protected by the copyright law on their service. A note read. "Those files will appear in the search results list with a © sign, and their download will not be possible."[1389]

The company's capitulation marked a significant blow at the time to the beleaguered file-swapping world catalysed by Napster's departure. As songs disappeared from Napster's service under an injunction, people flocked to the alternatives in hopes of keeping their access to free music alive.

iMesh had been among the few services that kept operating unrestricted after Napster's legal troubles began. Because it was based in Israel, it was viewed as slightly harder to reach than the U.S. based services.[1390] Currently iMesh filters block copyrighted songs where they do not have the copyright owner's authorisation.

(f) KaZaA B.V. v. Vereniging Buma and Stichting Stemra[1391]

The Amsterdam Court of Appeal on 1 April 2002 held that Consumer Empowerment BV, which sold its assets to Sharman Networks an Australian startup incorporated in Vanuatu, could distribute software that is designed to let users share music and films on the Internet.[1392]

The ruling in the case between the internet software company which distributes KaZaA and Dutch music rights organisation Buma Stemra overturned a decision from the Amsterdam District Court on 30 November 2001 in favour of the music industry.[1393]

The Court ruled that KaZaA was not liable for any individual's abuse of its software, which was used by millions of people around the world every day to swap copyright-protected games, music, pictures and films.[1394]

The Dutch music rights giant then appealed to the Netherlands Supreme Court. On the 19 December 2003, the Netherlands Supreme Court upheld the decision of the Court of

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[1388] *RIAA v. iMesh* US SD New York 03CV7339.
[1389] Lovatt, F., *"iMesh Pays Out, Changes Business Model"*, Digital-Lifestyles.info, 22 July 2004, located at http://digital-lifestyles.info/display_page.asp?section=business&id=1418 (accessed on 27 August 2005).
[1390] Borland, J., *"RIAA sues iMesh file-trading firm"*, CNET News.com, 19 September 2003, located at http://news.com.com/2100-1025_3-5079454.html (accessed on 29 September 2003).
[1391] *KaZaA B.V. v. Vereniging Buma and Stichting Stemra* (Amsterdam District Court Netherlands, 2001 reversed on appeal in the Appeals Court Netherlands, 2002) (Cause List Number 1370/01 SKG).
[1392] Evers, J., *"Dutch Supreme Court rules Kazaa is legal"*, Infoworld, 19 December 2003, located at http://www.infoworld.com/article/03/12/19/HNcourtkazaa_1.html (accessed on 13 January 2008).
[1393] BBC News, *"Blow to online music piracy fight"*, BBC News, 19 December 2003, located at http://news.bbc.co.uk/go/pr/fr/-/1/hi/technology/3335063.stm (accessed on 3 March 2008).
[1394] Ibid.

Appeal.[1395] The decision came as a fresh blow at the time to the entertainment industry, ruling that the creators of KaZaA couldn't be held liable for the copyright-infringing actions of its users.

(g) Japanese Society for the Rights of Authors, Composers and Publishers ("JASRAC") v. Japan MMO[1396]

The Tokyo District Court ruled in April 2002 that Tokyo-based MMO Japan was prohibited from offering users its online file-swapping service, named 'File Rogue'. This was the first court ruling in Japan on the issue.[1397]

The case involved a service similar to Napster in which there was centralised control over people's activities. The suit against MMO Japan was filed on 29 January, 2002 by the record labels requesting the digital files produced from commercial music CDs be excluded from its File Rogue service.[1398]

The Japanese Society for Rights of Authors, Composers and Publishers ("JASRAC")[1399] and the Recording Industry Association of Japan ("RIAJ") found that more than 70,000 MP3 files were available through the service. The association stated that the piracy had cost the Japanese music industry US$6.54 billion or 7.05 billion Japanese Yen since 2000 in lost sales revenue.

The court ordered Japan MMO and Michihito Matsuda to cease their service and jointly pay 36.89 million Japanese Yen in total in damages. The defendants disagreed with this court ruling and appealed against it, but the Tokyo High Court on the 31 March 2005 dismissed the appeal.[1400]

(h) RIAK v Soribada[1401]

On 7 December 2002 the Suwon District Court ruled against the proprietors of the Korean file-trading webpage,[1402] Soribada (which means "sea of sound") which was created by two Korean brothers and allowed users to trade MP3 music files with each other. Soon afterwards, 16 members of the Recording Industry Association of Korea, including the

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[1395] *Kazaa v. Buma/Stemra*, Unofficial reports in translation are available at: http://www.solv.nl/index.php?blz=6&nid=2&lang=en.

[1396] *Japanese Society for the Rights of Authors, Composers and Publishers (JASRAC) v. Japan MMO* (Tokyo District Court, Japan, 2003; appealed to the Tokyo High Court, Japan, 2005).

[1397] Morishita, K., *"Rights or Freedom"*, The Nikkei Weekly, 17 June, 2002.

[1398] Aughton, S., *"Japanese record labels win landmark P2P settlement"*, PC Pro, 4 April 2005, located at http://www.pcpro.co.uk/news/71117/japanese-record-labels-win-landmark-p2p-settlement.html (accessed on 15 October 2005).

[1399] For further information regarding "JASRAC" see Glossary of Terms at p.22 of this thesis.

[1400] Ibid.

[1401] *RIAK v. Soribada* No. 8869 (SDPP S. 2001).

[1402] Kim, Choi and Lim Intellectual Property Law Newsletter, *"The Demise of Soribada - Soribada Case: The Korean Version of Napster"*, Kim, Choi and Lim Intellectual Property Law Newsletter, September 2002, located at http://218.50.55.153:8080/archives/attboard_e/1/2/Newsletter%200209.pdf (accessed on 14 November 2005).

association's chairman Park Kyung-Joon, sued Soribada on copyright infringement grounds in the hopes of shutting down the service.[1403]

A local court in Korea sided with the RIAK, holding that the operators of Soribada should not allow users to download or upload MP3 files of songs belonging to the firm's Chairman Park and the 15 others.[1404]

Towards that end, the tribunal imposed a 200 million Won fine (US$170,000) on the brothers (to be paid within 7 days) and essentially ordered them to desist from using their servers for file-trading purposes.[1405]

(i) International Federation of the Phonographic Industry v. Bruvik,[1406]

In 2003 the Lillehammer City Court ruled that Frank Bruvik violated the Norwegian Copyright Act by developing a version of Napster. Although Bruvik was found to have violated the Copyright Act, the court determined that he was not liable for contributory infringement because users had downloaded songs for their private use, which is allowed under the Norwegian Copyright Act.[1407]

(j) Ediciones Musicales Horus v. Weblisten[1408]

In 2003 the Provincial Court of Barcelona ruled on a Spanish version of "Napster," which offered downloadable music online. Ediciones Musicales Horus sued Weblisten for copyright infringement under the Spanish Intellectual Property Act. Weblisten argued that the copying of CD's onto MP3 files was not a "reproduction", but rather a public performance of the songs and that a licence was not necessary. The court disagreed, finding that "reproduction" includes the uploading of digital files.[1409] Therefore, the court held that Weblisten had not obtained the necessary licence and was liable for copyright infringement.

(k) IFPI v KURO

On September 9, 2005 the principals of Fashionnow Co. Limited the company behind Kuro, a popular Taiwanese subscription P2P service were convicted of criminal copyright infringement by the Taiwanese District Court.[1410] Kuro solicited users to the P2P service knowing they would infringe copyright and made profits as a result of the infringement. The

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[1403] Ibid.
[1404] Ibid.
[1405] Ibid.
[1406] *Int'l Federation of the Phonographic Industry v. Bruvik* (Lillehammer City Court, Norway, 2003).
[1407] Zeropaid, *"Norwegian Student Fined for Online Music Piracy"*, Zeropaid, 23 Januery 2003, located at http://www.zeropaid.com/news/2370/Norwegian+Student+Fined+for+Online+Music+Piracy (accessed on 3 May 2008).
[1408] *Ediciones Musicales Horus v. Weblisten* (Provincial Court of Barcelona, 2003).
[1409] See http://www.perkinscoie.com/casedigest/icd_results.cfm?search=copyright; See also Zeropaid News, *"Weblisten.com bites the dust"*, Zeropaid News, 31 May 2005, located at http://www.zeropaid.com/news/5436/Weblisten.com+bites+the+dust (accessed on 26 June 2008).
[1410] IFPI's *Digital Music Report 2006*, p.19, located at http://www.ifpi.org/site-content/library/digital-music-report-2006.pdf (accessed on 29 December 2006).

operators could have, but refused to install filters.[1411] The Court took all these factors into account. The three principals were all sentenced to two - three years imprisonment and all three, and the company itself, were each fined $US90,000.[1412] This was the first criminal ruling of its kind anywhere in the world.

2. Summary of Cases Against ISPs

(a) Elektra Entertainment Group et al v. Does 1-6.[1413]

On the 23rd March 2004 Elektra representing various record companies filed for an order in the US District Court for the Eastern District of Pennsylvania to be granted a subpoena in its dispute with the University of Pennsylvania ("Penn") ISP for the names of six "John Doe" defendants, their addresses, telephone numbers, e-mail addresses, and Media Access Control addresses that were suspected of copyright infringement for music file swapping.[1414]

The Pennsylvania court held that before revealing the "John Does" information, Penn must first alert the "John Does"; explain what has happened; and explain how they may contest the charges against them.[1415] The court also provided a model notice attached to its order for Penn to use which included a resource list of lawyers and organisations assisting individuals whose ISP's have received this kind of subpoena.[1416]

Finally, the court held that the "John Does" will remain anonymous for 21 days from the date of the notice by which point, they must either file a motion to quash Elektra's subpoena to the ISP, or have their identities revealed. In addition, if they do file a motion to quash the subpoena, they will remain anonymous while the motion is pending.[1417]

(b) CRIA v. Bell/Sympatico, Rogers Communications Inc., Shaw Communications Inc., TELUS Corporation and Videotron Telecom Ltd.[1418]

On 11 February 2004, Canadian Recording Industry Association ("CRIA") filed motions to require five Canadian internet service providers to disclose the identities of alleged large-scale infringers who have been openly and illegally distributing thousands of digital music files to millions of strangers.[1419] These people were subscribers to internet services operated by Bell/Sympatico, Rogers Communications Inc., Shaw Communications Inc., TELUS Corporation and Videotron Telecom Ltd.[1420] Canadian record labels had asked the court for

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[1411] Ibid.
[1412] Ibid.
[1413] *Elektra Entertainment Group et al v. Does 1-6.* US District Court Eastern District of Pennsylvania 04-CV-1241.
[1414] Ramasastry, A., *"Court strikes a good balance in file swapping case"*, CNN.com, 11 November 2004, located at http://www.cnn.com/2004/LAW/11/11/ramasastry.file.swapping/ (accessed on 21 November 2008).
[1415] Ibid.
[1416] Ibid.
[1417] Ibid.
[1418] *CRIA v. Bell/Sympatico, Rogers Communications Inc., Shaw Communications Inc., TELUS Corporation and Videotron Telecom Ltd* 2004 FC 488 (Ottawa, Ontario 31 March 2004).
[1419] Borland, J., *"Judge: File sharing legal in Canada"*, CNET News.com., 31 March, 2004, located at http://news.com.com/Judge+File+sharing+legal+in+Canada/2100-1027_3-5182641.html (accessed on 16 April 2004).
[1420] Ibid.

authorisation to identify 29 alleged file swappers in that country, in preparation for suing them for copyright infringement. But in March, the lower court blocked the labels' trade group from obtaining the identities of alleged file traders. In a far-ranging decision, the court further found that both downloading music and putting it in a shared folder available to other people online appeared to be legal in Canada.[1421]

In December 2003 Canada's Copyright Board sent a first warning signal to the industry, saying that it believed using file-swapping services to download music but not necessarily uploading appeared to be legal.[1422] The regulators cited a long-standing rule in Canada, in which most copying for personal use was allowed. To repay artists and record labels for revenue lost by this activity, the government imposes a fee on blank tapes, CD's and even hard disk-based MP3 players such as Apple Computer's iPod, and distributes that revenue to copyright holders.[1423]

Finckenstein J., wrote in his March decision,

"[Sharing music on an online network did not appear to violate Canadian copyright law…]*The mere fact of placing a copy on a shared directory in a computer where that copy can be accessed via a P2P service does not amount to distribution"* [1424]

Finckenstein J., further wrote,

"Before it constitutes distribution, there must be a positive act by the owner of the shared directory, such as sending out the copies or advertising that they are available for copying."[1425]

With respect to downloading, the judge accepted the Copyright Board's earlier decision. But he went further, citing a recent Supreme Court decision. In that recent case, the Supreme Court ruled that libraries were not "authorising" copyright infringement simply by putting photocopy machines near books. The libraries were justified in assuming that their customers were using the copiers in a legal manner, the High Court ruled.[1426] Finckenstein J said the same rationale should apply to P2P users.[1427] Therefore the position in Canada is that downloading music appears to be legal but uploading music would infringe copyright.

[1421] Ibid.
[1422] Ibid.
[1423] Ibid.
[1424] See Court Decision at http://www.eff.org/IP/P2P/RIAA_v_ThePeople/JohnDoe/20040402_07_Priority_RFJ_Exhibit_3.pdf (accessed 3 December 2004).
[1425] Ibid at p.15 paragraph 28.
[1426] Ibid paragraph 27; Finckenstein, J., quoting McLachlin, CJ., in *CCH Canada Ltd v. Law Society of Canada*, 2004 SCC 13.
[1427] Ibid.

(c) Warner Music Australia Pty Ltd & Ors v Swiftel Communications Pty Ltd & Ors[1428]

MIPI raided the offices of Swiftel Communications in Perth on 10th March 2005 after Federal Magistrate Rolf Driver granted an Anton Pillar order. Swiftel was identified as an ISP which had adopted BitTorrent technology to link alleged infringers to music clips and sound recordings.[1429]

The two Internet Web servers known as the Torrent Web pages and a Web site called Archie's Hub hosted a database of music video files which could be very quickly downloaded, provided the user had BitTorrent software or a protocol equivalent to BitTorrent.

BitTorrent is a software application and system that enables efficient software distribution and peer-to-peer sharing of large files by enabling users to serve as networking redistribution points. Rather than having to send a download to each person requesting it, the distributor or holder of the content sends it to one person, who in turn sends it to other people, who together share the pieces of the download back and forth until everyone has the complete download.[1430]

Archie's Hub could only be accessed by users who were members of Swiftel. Unlike the Torrent Web server, however, the Web site used direct connect software to enable members of Archie's Hub to share digital sound recordings and music video files with other members. Direct Connect software is traditional P2P file-sharing software and allows users to connect directly to each other to swap files.[1431]

On 16 March, 2005 the Federal Magistrates Court ordered that the respondents not move, destroy, alter, conceal or remove from the premises or part with possession or control of any items which are relevant materials except by delivery to the applicants. Secondly, the Court ordered that the respondents keep the websites disabled and inaccessible by members of the public. Thirdly, the respondents must not knowingly host any new website that employs BitTorrent technology or is a Direct Connect hub and still disable any such website where notice has been provided of likely infringing activity.[1432]

On 20 May, 2005 the Federal Magistrates Court reconvened and Magistrate Driver determined that the music industry's case against Swiftel for alleged copyright infringement would continue to be heard by the Federal Magistrates Court, despite Swiftel's lawyers seeking a transfer to the Federal Court.[1433] The respondents argued that the case should be heard in the Federal Court rather than the Magistrates Court, due to the complexity and novel

[1428] *Warner Music Australia & Ors v. Swiftel Communications Pty Ltd & Ors* [2005] FMCA 627 (16 March 2005).
[1429] Maslog-Levis, K., "*Australian ISP raided in BitTorrent Crackdown*", CNET News.com, 10 March 2005, located at http://news.com.com/Australian+ISP+raided+in+BitTorrent+crackdown/2100-1-25_3-5608567.html (accessed on 19 March 2005).
[1430] Ibid.
[1431] Ibid.
[1432] *Warner Music Australia & Ors v. Swiftel Communications Pty Ltd & Ors,* op.cit.
[1433] *Warner Music Australia & Ors v. Swiftel Communications Pty Ltd & Ors (No.2),* [2005] FMCA 706 (20 May 2005).

nature of the case. The respondents argued that this was going to be the first copyright case to be heard since the amendments were made to the *Copyright Act* in response to the *Australian-US Free Trade Agreement 2004.*[1434] The respondents also claimed that it was the first case relating to BitTorrent technology and an ISP's responsibility. In response, the applicants argued that technology was being developed all the time and new laws cannot be formed for every new piece of technology.[1435]

Magistrate Driver decided that even though most music copyright cases heard in the Magistrates Court have historically dealt with "CD's being sold in Petrol Stations and giving away free CDs at dance parties", he believed at this point that the Magistrate's court had the resources to continue hearing the case and there was no need for a transfer to the Federal Court.[1436]

Even though there has not been a precedent with a case using amendments to the *Copyright Act 1968* (Cth) following the *US Free Trade Implementation Act 2004* (Cth) (FTA), Magistrate Driver said he would take guidance from Wilcox J, who was hearing *Sharman's* case. He would also seek guidance from Tamberlin J, who was also hearing the *Cooper* case.[1437]

On 24th June, 2005 the applicants went back to the Federal Magistrates Court to allege Swiftel's senior systems administrators should be enjoined in the proceedings because they ignored calls to remove web sites that were in breach of copyright, and instead "treated the infringement notices like spam."[1438]

In April, Magistrate Driver refused to allow the senior systems administrators to be added as respondents, saying at that stage there was no evidence they acted beyond the scope of their employment.[1439] However, this decision was overturned in the Federal Court by Branson J. Branson J, ordered Swiftel to produce data backup records by 8 July, 2005.[1440]

The trial was expected to start in October 2005. On 14 October 2005 in a surprise announcement it was revealed that the Swiftel case had been settled.[1441] But what was unusual was perhaps for the first time in MIPI history, the terms of a settlement in a copyright infringement case were sealed. No further information has been revealed regarding the settlement terms in the case.[1442]

[1434] *Australian-US Free Trade Agreement 2004* (AUSFTA) amendments implemented into the *Copyright Act 1968* (Cth) by the *Australia- US Free Trade Implementation Act 2004* (Cth) to take effect 1 January 2005.
[1435] McConnachie, D., *"Swiftel Bid for Higher Court Denied"*, PC World, 17 March 2003, located at http://www.pcworld.idg.com.au/index.php/id;67841247;fp;1024;fpid;3 (accessed on 20 March 2008).
[1436] Ibid.
[1437] Ibid.
[1438] *Warner Music Australia & Ors v. Swiftel Communications Pty Ltd & Ors* [2005] FCA 1127 (16 August 2005).
[1439] CNET news, "*BitTorrent: Swiftel staff to face the music*", CNET.com.au, 27 June 2005, located at http://www.cnet.com.au/software/internet/0,39029524,40055566,00.htm (accessed on 23 August 2008).
[1440] Ibid.
[1441] Malik, A., *"Oz Swiftel Case settled in a shroud of secrecy"*, The Register, 14 October 2005, located at http://www.theregister.co.uk/2005/10/14/swiftel_over/ (accessed on 18 October 2008).
[1442] Ibid.

3. Web Site Providers

(a) Arista Records, Inc., et al. v. Sakfield Holding Company S.L., et al.[1443]

The company and operators behind the Puretunes.com website, an online service which sold unauthorised unlimited music downloads agreed to an out-of-court settlement of a copyright infringement lawsuit brought in 2003 by the major record companies.[1444]

The founder of file-sharing network Grokster, Daniel Rung, together with former Grokster president Wayne Rosso and Mr. Rung's brother and son, have collectively agreed to pay US$500,000 to settle a copyright infringement lawsuit filed by the Recording Industry Association of America (RIAA). The settlement also calls for Sakfield Holding Co., a Spanish company founded by the Rungs, to pay US$10 million.[1445] However, the company no longer exists.

The settlement is in connection with Puretunes.com, a Spanish MP3 download site that operated briefly in 2003. Puretunes.com was owned by Sakfield Holding Co. and had a marketing alliance with Grokster.[1446]

For a cheap monthly subscription, the site allowed consumers to download an unlimited number of songs. The company's Spanish lawyer argued that Puretunes.com did not need licences from record labels because Spanish law allowed the site to operate with only agreements from associations representing music publishers and performing artists.[1447] However, Puretunes.com had not actually obtained licences from those associations, and the site was shut down when this fact was revealed.[1448]

[1443] *Arista Records, Inc., et al. v. Sakfield Holding Company S.L., et al.* 03-CV-01474 (District Court for the District of Columbia, 2003).

[1444] Pruitt, S., *"RIAA aims to bid adios to Puretunes"*, InfoWorld, 10 July 2003, located at http://www.infoworld.com/article/03/07/10/HNpuretunes_1.html (accessed on 14 July 2008).

[1445] IFPI, *"Puretunes.com Settles Record Companies' Copyright Infringement Lawsuit"*, IFPI Press Release, 25 October 2004, located at http://www.ifpi.org/site-content/press/20041025.html; See also Hugenholtz, B., Guibalt, L., and Van Geffen, S., op.cit., p.8.

[1446] Ibid.

[1447] It is interesting to note here that in other countries such as those located in Russia are claiming that under Russian copyright law they have rights to sell music. Currently Allofmp3 is charging by the megabyte and it works out to be AU5c per song. IFPI has attempted to shut these internet sites down without success. The tussle over Russian site AllofMP3.com highlights the difficulties that copyright companies are having around the world, faced with many versions of laws that are often imperfectly adapted to new Internet distribution models. The Russian site says it has legal rights to sell the music in the form of licenses from the Russian Multimedia and Internet Society allowing phonograms to be performed publicly without the authorisation of the copyright owner for broadcasting and cable transmission. The Internet could be deemed to fall under this exemption. A similar argument can be applied to copies in the cache memory of computers.. Record labels say that group does not have the authority to grant distribution rights to their music. Allofmp3 is one of many Russian internet sites that are openly offering MP3 files from a central server. Other popular Russian sites include club.mp3search.ru and www.mp3spy.ru. The Munich District Court recently issued an injunction against AllofMP3 prohibiting them from distributing content protected by German copyright. As a result of this ruling a number of record companies have started sending warning letters to the operators of German websites which link to AllofMP3 to remove these links otherwise face a €75,000 fine.

[1448] IFPI, *"Puretunes.com Settles Record Companies' Copyright Infringement Lawsuit"*, op.cit.

Shortly after, record labels sued Puretunes.com for not obtaining licences for use of the labels' music. Mr. Rosso and the Rungs blamed their Spanish lawyers for not properly informing them about the licensing situation.[1449]

The connection between Grokster, Mr. Rosso and the Rungs, on one hand, and Sakfield Holding Co. and Puretunes.com on the other hand was uncovered during an investigation conducted by the RIAA. The RIAA also found that the Rungs had created several companies in several countries in order to hide their ownership of Puretunes and Sakfield Holdings.[1450] Puretunes.com's computers were found to be based in Canada and the U.S. During the time that Puretunes.com operated, about two million songs, for which major record labels hold the copyright, were downloaded from the site.[1451]

When it was operating, Puretunes.com sold eight hours of unlimited downloads for US$3.99 and a full month of downloads for US$24.99. The website's operations were suspended in June 2003.[1452]

(b) BPI v. JetGroove[1453]

JetGroove was launched on 5 October 2004 claiming it was the first legal service for MP3 downloads which offers such a vast choice of dance music made by independent record labels in one place. The web site owners are English and have been operating the business from a UK address. The English site claims its catalogue stretches to half a million tracks, all in MP3 format.

An international anti-piracy action by IFPI and BPI, representing record companies worldwide and in the UK, has led to the removal of over 50,000 tracks and albums being offered for sale at the website jetgroove.com.[1454]

JetGroove claimed that they would pay royalties to the copyright owners based on the material that was actually downloaded, but the website prompted numerous complaints from IFPI and BPI members on the grounds that these tracks were being made available without permission.[1455]

The content providers were based in Moscow and the Domain Name Server and streaming audio services were hosted on US servers. IFPI sent a strongly worded cease and desist notice to the content providers requesting the immediate removal of the infringing material.[1456]

[1449] Ibid.
[1450] Ibid.
[1451] Ibid.
[1452] Ibid.
[1453] *BPI v. JetGroove* (Unreported settled out of Court).
[1454] IFPI, *"IFPI and BPI take action against Jetgroove.com",* IFPI Press Release, 14 October 2004, located at http://www.ifpi.org/site-content/press/20041014.html (accessed on 18 October 2005).
[1455] Ibid.
[1456] Ibid.

While JetGroove was not offering unauthorised songs for sale it was nevertheless offering streamed previews of those songs. JetGroove's scheme was to list the songs, measure demand for them, then approach their copyright owners with a view to licensing the tracks for sale. The strategy allowed JetGroove to list a huge selection of approximately 500,000 songs but only spend money on licences when demand reached a sufficiently high level. Attempts to purchase an unlicensed song presented buyers with a 'this track is not yet available' message.[1457]

However, by jumping the gun on its negotiations with the UK's Association of Independent Music (AIM), JetGroove landed itself in trouble. Its song previews, depending on their duration, require licensing just as much as selling the tracks did, and it is this alleged copyright violation that the BPI and IFPI used to stamp on the site.[1458]

(c) IFPI v Baidu

On September 16, 2005 the People's Court of Haidian District in Beijing China ordered Baidu to pay 68,000 Yuan (US$8,400) to mainland music company Shanghai Busheng Music Culture Media for unauthorised downloads of 46 songs.[1459]

On 26 September, 2005 the companies Universal, EMI, Warner, Sony BMG and their local subsidiaries, Cinepoly, Go East and Gold Label began its own proceedings to sue Baidu, dubbed "the Chinese Google," for infringing the copyright of 137 songs and are seeking 1.67 million yuan (US$206,000).[1460]

At the hearing, the plaintiffs claimed Baidu made it easy for users to download illegal copies of their songs. The music companies alleged they had never entrusted Baidu to make the 137 songs available on the Internet, and asked Baidu to immediately stop providing online displays and download services for these songs.[1461] Internet users may use Baidu's search engine to locate copies of music stored on the web. When a user clicks on a particular song, the engine provides a direct link to the site where the file is stored.[1462]

Baidu claimed that it was a neutral search engine that simply provides the basic service offered by all engines. Baidu said that it does not upload songs itself, nor does it provide online displays or download services to its users. Furthermore, Baidu claimed it had always advocated improving copyright protection on the Internet and promised to provide relief and protection if a company can prove it owned the rights[1463] to a song. Baidu said it was willing to work with music companies to explore new business models to provide a legal platform for music searches.

[1457] Ibid.
[1458] Ibid.
[1459] Chinaview.com, *"Baidu loses first round of copyright dispute"*, Chinaview.com, 20 September 2005, located at http://news.xinhuanet.com/english/2005-09/20/content_3515251.htm (accessed on 24 September 2008).
[1460] So, S., *"Baidu to appeal copyright ruling on MP3 searches",* The Standard – China's Business Newspaper, 21 September 2005, located at http://www.thestandard.com.hk/news_print.asp?art_id=1738&sid=4663721 (accessed on 25 September 2008).
[1461] Ibid.
[1462] Ibid.
[1463] Ibid.

On 25th October 2005 Baidu had reportedly removed all links to sites offering free MP3s after pressure from the music industry despite the fact that these searches provided a large proportion of the company's business. However it appears that whilst direct links have been removed, a search by a user would still find 'free' music.[1464] Baidu have countered with a disclaimer on its site saying that,

"Baidu itself does not store, control, edit or revise information contained in the linked webpages. We highly value the protection of intellectual property rights. If any authors or copyright owners find the links infringe your rights, Baidu will take measures to remove alleged webpage content or block these links in accordance with relevant laws".[1465]

(d) Sony Music Entertainment (Hong Kong) & Ors v Chinamp3.com

On 24th April, 2004 Sony Music Entertainment (Hong Kong) and Hong Kong Go East Entertainment Co, brought legal proceedings in the Beijing No 1 Intermediate People's Court against Shiji Yuebo Scientific Co, the operators of chinamp3.com a Beijing based MP3 website and was ordered to pay compensation of 160,000 Yuan (US$19,000).[1466]

The website, www.chinamp3.com, was well-known for providing MP3 downloads, and was required to stop infringing on intellectual property rights of the two entertainment companies according to the judgment in the first instance made by the Beijing court.[1467]

The website provided downloads for 35 songs by famous singer Kelly Chen, whose copyright is owned by Go East, and 11 songs by Lo Hau Yam, who is distributed by Sony Music.[1468]

The Beijing court held the two Hong Kong companies never authorised any person to use the sound recordings online. The respondents claimed that the website only provided a link for downloads, instead of direct download services.[1469]

The respondents further claimed that they did not intentionally violate the intellectual property rights of the two entertainment companies, so were not required to shoulder the responsibility for rights infringement.[1470]

Judge Liu Yong held that the accused website's MP3 download service provided not only links to downloads, but direct download services.[1471] The Court said the judgment was made

[1464] IFPI's *Digital Music Report 2006,* op.cit., p.19.
[1465] Xu, L., *"China's Baidu offers compromise search service for music downloads"*, Forbes.com, 25 October 2005, located at http://www.forbes.com/home/feeds/afx/2005/10/25/afx2296516.html (accessed on 16 November 2008).
[1466] China Daily, *"Digital piracy rife in cyber world"*, China Daily, 4 April 2005, located at http://www.chinadaily.com.cn/english/doc/2005-04/04/content_430628.htm (accessed on 17 April 2008).
[1467] Ibid.
[1468] IFPI's *Digital Music Report 2006,* op.cit., p.19.
[1469] Ibid.
[1470] Ibid.
[1471] China Daily, *"Digital piracy rife in cyber world",* op.cit.

according to the Copyright Law and a judicial interpretation issued by the Supreme People's Court over Internet-related copyright lawsuits.

(e) BMG Australia Ltd v S.11[1472]

On 25 August 2000, Record label BMG Australia Ltd, part of the giant Bertelsmann media empire threatened to sue the owners of an Australian web site over a link to an MP3 file of a famous John Farnham song which was being offered to its members as a theme song from the site.[1473]

Youth action group S11 chose "You're the Voice" as its theme song for protests at the World Economic Forum meetings held in Melbourne and scheduled for September 2000. Lawyers for BMG Australia contacted S11 asking for the song to be removed or it would take the issue to court. BMG's complaint asserted that any unauthorised use of John Farnham's recording was an infringement of copyright. Ultimately, the S11 group complied with the letter and removed the song.[1474]

4. Summary of Cases against Individual File Traders

(a) United States v Jeffrey Gerard Levy[1475]

On 20 August 1999, the US Department of Justice won its first MP3 pirating conviction. Mr. Levy is the first person convicted under the No Electronic Theft ("NET") Act, enacted in 1997 to punish Internet copyright piracy. In this case a 22 year old student, Jeffrey Gerard Levy, a senior at the University in Eugene, Oregon, majoring in public policy management faced the possibility of jail time for illegally distributing copyrighted material.

The NET Act makes it illegal to reproduce or distribute copyrighted works, such as software programs and musical recordings, even if the defendant acts without a commercial purpose or for private financial gain. If the defendant reproduces or distributes 10 or more copyrighted works that have a total value of more than $2,500, he or she can be charged with a felony, and faces a sentence of up to 3 years imprisonment and a fine of up to $250,000. A defendant who reproduces or distributes one or more copies of copyrighted works with a value of more than $1,000 can be charged with a misdemeanor, and face up to one year in prison and a fine of up to $100,000.

Levy pleaded guilty on 20 August and faced three years in prison and a US$250,000 fine. Levy had thousands of MP3 files on a Web site on the University's network. The University administrators were the first to notice the site because of the huge amount of bandwidth being used. In a two hour period, Levy's site sent out 1.7GB of data. [1476]

[1472] *BMG Australia Ltd* v. *S.11* (Unreported settled out of Court).
[1473] Creed, A., op.cit.
[1474] Ibid.
[1475] *RIAA v. Jeffrey Gerard Levy* (D. Or. 1999).
[1476] Patrizio, A., *"DOJ Cracks Down on MP3 Pirate"*, Wired News, 23 August 1999, located at http://wired-vig.wired.com/news/politics/0,1283,21391,00.html (accessed on 29 October 2008).

With MP3 files averaging four to five megabytes in size, that translated to around 500 files. In addition to MP3 files, Levy also had pirated computer software and clips from theatrical movies. There was no evidence that Levy made any profit from the freely available works. Mr Levy simply operated what is commonly known as a "warez" site and allowed the public to download illegal copyrighted files at will.

Levy was sentenced to two years probation and a US$25,000 fine.[1477]

(b) The United States v Scott Wickberg[1478]

Scott Wickberg, a 19-year-old Oklahoma State University student pleaded no contest to a misdemeanour charge of illegally distributing copyrighted material on 22 November 2001.[1479] The court accepted a plea of no contest from the defendant, who was a first year graphics design student, and found him guilty of the unlawful advertisement or offers to distribute sound recordings.

Wickberg had been operating a file-sharing Web site on the University's network that allowed others to log onto it with a password and download any of the 10,200 MP3 songs or other copyrighted material in his collection.[1480]

The court held that the defendant had wilfully and unlawfully advertised or offered to distribute certain sound recordings for distribution or circulation which did not clearly and conspicuously display thereon in clearly readable print the actual true name of the manufacturer.[1481]

Wickberg received a two year unsupervised and deferred probation and will pay the maximum allowable contribution of US$5,000 to the court fund in lieu of fine and court costs.[1482]

(c) RIAA v Jesse Jordan, Joseph Nievelt, Daniel Peng and Aaron Sherman[1483]

Four college students Jesse Jordan, Joseph Nievelt, Daniel Peng and Aaron Sherman were sued by RIAA in April 2003 for creating search engines on campus networks that made it easier to locate and share files that reside on others' computers, including term papers, research papers, photographs and MP3 music files.[1484]

[1477] Ibid.
[1478] *RIAA v. Scott Wickberg* (D.Ok. 2000).
[1479] Menta, R., *"Oklahoma Student to be Sacrificial Lamb in MP3 Wars",* MP3newswire.net, 21 September 2000, located at http://www.mp3newswire.net/stories/2000/victim.html (accessed on 16 January 2008).
[1480] Ibid.
[1481] Ibid.
[1482] Ibid.
[1483] *RIAA v. Jesse Jordan, Joseph Nievelt, Daniel Peng and Aaron Sherman* [collectively known as *Atlantic Recording Corp v. Jordan,* No. 03-CV-0417 (N.D. N.Y. 2003); Atlantic Recording Corp. v. Nievelt, No. 2:03CV0064 (W.D. Mich. 2003); Atlantic Recording Corp. v. Peng, No. 03-1441 (D. N.J. 2003); Atlantic Recording Corp. v. Sherman, No. 03-CV-01416 (N.D. N.Y. 2003)].
[1484] Graham, J., *"Students paying for playing"*, USATODAY.com, 4 May 2005, located at http://www.usatoday.com/tech/news/2003-05-04-students_x.htm (accessed on 3 June 2008).

RIAA, which represented the five major music companies and hundreds of labels, sued the students from Princeton University in New Jersey, Rensselaer Polytechnic Institute in New York, and Michigan Technological University for US$3 billion. RIAA brought a suit to shut down the students' file-sharing services and sought an award of damages, which ranged up to as much as US$150,000 per song. RIAA claimed that each of the sites offered up to 1 million songs that were available for free download.[1485]

The case was settled out of court and Daniel Peng agreed to pay a US$15,000 settlement with no admission of guilt. Jesse Jordan agreed to a US$12,000 settlement with no admission of guilt. Joseph Nievelt agreed to pay US$15,000 settlement with no admission of guilt and Aaron Sherman agreed to US$17,500 settlement with no admission of guilt. All the students agreed to pay the settlement payments over three years.[1486]

(d) RIAA v. Brianna LaHara[1487]

Brianna LaHara, who was just 12 years old, was among 261 people sued for file trading by the RIAA in its recent spate of lawsuits to stem file trading through fear of civil suit. The record lobby was looking for $150,000 per song. Brianna was the first identified child sued by the RIAA. This caused a public relations backlash for the industry which quickly settled with her mother for US$2,000.[1488]

(e) The Finnish Group of IFPI v. Anon[1489]

In 2002 the District Court of Jyvaskyla ruled that MP3 file sharing violated the Finnish Copyright Act. A college student in Finland was sharing MP3 music files through a P2P network called CuteMX (a Napster like service which shut voluntarily after the Napster decision), which allowed users to connect directly to one another. The court stated that the defendant should have realised that the MP3 files he uploaded would be downloaded by others, and the fact that he received no financial benefit was immaterial. Therefore, the court held that the defendant had violated the Finnish Copyright Act.[1490]

(f) Koda, et al. v.Anon.[1491]

In 2001 the Western High Court of Denmark held that merely linking to a website that contains music files that were uploaded without the consent of the copyright owner amounts to copyright infringement. Two children whose personal homepages linked to sites

[1485] Ibid.
[1486] Ibid.
[1487] *RIAA v. Brianna LaHara* (Unreported settled out of court).
[1488] Menta, R., *"The RIAA Settles Fast with 12-year-old Trader"*, MP3newswire.net, 10 September 2003, located at http://www.mp3newswire.net/stories/2003/brianna_laHara.html (accessed on 10 October 2008).
[1489] *The Finnish Group of IFPI v. Anon* (District Court of Jyvaskyla, Finland, 2002).
[1490] See case summary at http://www.perkinscoie.com/casedigest/icd_results.cfm?keyword1=international&topic=International.
[1491] *Koda, et al. v. Anon.* (VL B-1943-99 and VL B-2089-99 Western High Court, Denmark, 2001).

containing unauthorised music files were found to be liable for copyright infringement under the Danish Act on Intellectual Property.[1492]

(g) IFPI v. Anon.[1493]

On 8 May 2003 a German student whose identity has not been disclosed was arrested for allegedly distributing over seven million MP3 files a week. Police in Germany made their first arrest of a student who had set up an exchange for swapping computer music files.

Police in the southern town of Fuerth claim they confiscated eight computers after investigations initiated by the German branch of the IFPI led them to the house of the 25-year-old computer programming student.

The IFPI claimed the man was using a clone of a Napster file-sharing server to distribute over a million MP3 music files daily to some 3,000 individual users over a period of weeks. The man has since been charged with infringing copyright laws and faces a possible jail sentence if found guilty.[1494]

(h) IFPI v. Anon1495.

The Local Court of Cottbus in Germany has convicted a 23 year-old student for 272 counts of copyright infringement, relating to songs uploaded/downloaded on KaZaA. The court heard that a police raid had turned up around 100 home-burnt music CD's and about 6000 MP3 files on his PC's hard drive. He was fined €400 for dowloading/uploading songs, and was also required to pay €8,000 in damages, as a result of parallel civil proceedings launched against him by the German branch of the IFPI.[1496]

(i) R v Le, Ng and Tran[1497]

Three Australian students became the first people in the world to appear in court facing criminal charges over internet music piracy.

On 24 April 2003, Tommy Le, Charles Cok-Hau Ng and Peter Tran were arrested and charged. On 13 May 2003, the defendants appeared in court accused under the Copyright Act 1968 (Cth) of running a Napster-like website called MP3 WMA land, that allowed millions of web users to swap pirated music.[1498] Many of the music files and video clips

[1492] See unauthorised translation of transcript at http://www.koda.dk/usr/koda/kodaweb.nsf/filer/deeplinkingverdict/$file/deep+linking+verdict.pdf.
[1493] *IFPI* v. *Anon* (Unreported, Feurth, Germany).
[1494] See http://www.rocktober.com/blogarchive/2003_05_04_blogarchive.html.
[1495] *IFPI v. Anon* (Local Court of Cottbus, Germany, 95 Ds 1653 Js 15556/04).
[1496] Expatica, *"Music Industry launches illegal downloading blitz"*, Expatica, 9 June 2004, located at http://www.expatica.com/source/site_article.asp?subchannel_id=52&story_id=8327 (accessed on 28 July 2005).
[1497] *Commonwealth Director of Public Prosecutions v. Le, Ng and Tran* (Local Court NSW, Chief Magistrate Graeme Henson, 18 November 2003).
[1498] Lowe, S., *"First criminal charges of internet piracy"*, Sydney Morning Herald, 14 May 2003, located at http://www.smh.com.au/articles/2003/05/13/1052591788418.html?oneclick=true (accessed on 15 May 2008).

were hosted on University computers.[1499] The file swapping site WMA Land consisted of mirror sites and was a competitor to file swapping services such as KaZaA and iMesh. The Record companies estimate the losses to the music industry of approximately AU$60 million worth of sales because of the site.[1500] The students were facing up to five years in jail or a $60,500 fine per infringement, if guilty.

Further, on 29 May 2003 the Australian Federal Police executed a search warrant and raided the University of Technology, Sydney (UTS) in connection with the investigation of the case.[1501] On the 19th November, 2003 the defendants were each given suspended jail sentences of 18 months. Tommy Lee was also sentenced to 200 hours community service.[1502]

[1499] Pearce, J., *"Police raid Sydney university over alleged music piracy"*, ZDNet, 30 May 2003, located at http://www.zdnet.com.au/newstech/ebusiness/story/0,2000048590,20274970,00.htm (accessed on 4 August 2005).
[1500] Reuters, *"Australia shutters music piracy site"*, Reuters, 24 April 2003, located at http://www.zdnet.com.au/newstech/security/story/0,2000048600,20273952-1,00.htm (accessed on 25 April 2005).
[1501] Pearce, J., *"Police raid Sydney University over alleged music piracy",* op.cit.
[1502] Milligan, L., *"MP3 accused plead guilty"*, Australian IT, 2 October, 2003, located at http://australianit.news.com.au/articles/0,7204,7432060^15306^^nbv^,00.html (accessed on 9 October 2005).

APPENDIX 2

Interview Introduction

1. **Are you familiar with digital music technology?**

2. **Have you ever used digital music technology? If so how often?**

3. **In what capacity have you used digital music technology? i.e. work, personal use, distribution, education etc?**

4. **In what circumstances do you use a PC? i.e at work, at home, at friends houses, at Internet cafes, at libraries etc.**

5. **Are you involved in the Music Industry? i.e. performer, artist, writer/composer, consumer, retailer, distributor, record label.**

6. **From your perspective has Internet technology influenced a change in the music industry?**

7. **Are you aware of anyone responsible for monitoring digital music use on the internet? If so, who? e.g. Internet service providers, Consumers, Artists, Recording labels, Manufacturers, Government etc.**

8. **Do you believe Record companies have a lot of power with regard to the distribution of music on the internet through digital music technology? If so, how much?**

9. **Do you believe Artists have a say with regard to the distribution of music on the internet through digital music technology? If so how much?**

10. **In your opinion does the consumer control distribution of music on the internet through digital music technology?**

11. **From your perspective, do you believe that there is a positive shift in the balance of power from the record companies to the consumer? Or do you believe it is the other way around?**

12. **In the emerging/new technological environment, how do you feel record companies and artists will protect their copyrighted works? i.e. Legislation, new technology, security measures such as encryption, pay per play etc.**

13. **Has digital music technology become the catalyst for changes in the music industry?**

14. **Have you ever used Peer to Peer sharing software/technology?**

15. **If so, how often do you use Peer to Peer technology?**

16. **Have you ever heard of organisations such as Napster, MP3.com, Winmx, Gnutella and KaZaA?**

17. **How often do you use the software?**

18. **Are you familiar with the court case involving the Recording Industy Association of America v. Napster? Is do did you agree with the result?**

19. **Do you believe statutory licensing arrangements would help control the distribution of music over the Internet?**

20. **Do you believe subscription models such as "pay per play" help to control the distribution of music over the Internet?**

21. **From your perspective how effective has litigation through court cases been to control the distribution of music over the Internet?**

22. **Are there other alternatives to control and monitor the distribution of music on the Internet? If so, what do you believe they are?**

23. **Who do you believe is the main benefactor of the recent technological changes in music industry? i.e. Internet service providers, Consumers, Artists, Recording labels.**

24. **Do you believe that in the current environment, a new/emerging artist can develop and prosper in the music industry without signing a recording contract?**

25. **Do you believe that digital music technology has reached its limit? If so, why?**

26. **Do you believe that another technology will emerge to replace digital music technology?**

27. **Do you believe the consequences for illegally distributing copyrighted music on the Internet are adequate?**

28. **Do you believe the law currently plays an important role in controlling digital music distribution on the Internet? If so, how?**

29. **In your opinion will the use of digital music technology continue to grow?**

APPENDIX 3

Interview 1
Peter Kilpatrick
Tasmanian Symphony Orchestra
29 March 2003

1. Are you familiar with digital music technology?

I would say I am not overly conversive with it, but I am aware of it through work scenarios here at the TSO and through the management of the orchestra.

2. Have you ever used digital music technology? If so how often?

Not personally through private situations, but through work, absolutely. How often? Not all that regularly, the main reason why we come across it is through candidates wishing to apply for positions within the Tasmanian Symphony Orchestra. Like Demonstration tapes.

3. In what capacity have you used digital music technology? i.e. work, personal use, distribution, education etc?

New compositions, particularly new compositions coming from overseas that have not been recorded by an orchestra but that can be prepared through MIDI capabilities and computer generated recordings are sent via an MP3 file or something that is along those similar sort of lines. There are computer programs like (Sevalies?) which is a dedicated music application, where someone who creates a score or a work on (Sevalies?) can send it through and you can actually play it back through (Sevalies?), alternatively if they do some sampling and want to send it through as an MP3 file they can do that.

But the situation in Australia is a little bit different, I think to the rest of the world in that particularly when it comes to orchestras, because we've got this orchestra network called the Symphony Australia Network, and they have a central music library in Sydney, so all of the orchestras within the network, so the West Australian Symphony and the Queensland Orchestra, the Sydney Symphony, the Melbourne Symphony, the Tasmania Symphony and the Adelaide Symphony, they all access the central natural music library in Sydney, and that Natural music library coordinates everything from hiring of overseas parts and materials for the various orchestras through to the Symphony Australia Company itself, which the National Music Library is a part of. It also manages composer's commissions and new works and all of that sort of stuff. So, indirectly the TSO comes across these sort of technologies.

The specific use of MP3 technology is primarily in the audition situation specific to the TSO. The majority of our applications that come through on MP3 technology are through overseas applicants, and the immigration side of things dictates that we need to demonstrate that we can't fill these positions from the ranks of Australian citizens or permanent residents. It is largely for permanent positions within the orchestra so it is

usually the way we can demonstrate this is through solo excerpts sent via MP3 technology. It also means that we can be more flexible in the method we receive audition tapes (cassette, tape, MINI disk, DAT, CD, MP3). It is only in that last 12 – 18 months that we are starting to get applications on MP3. A lot of the time it was MINI disc, DAT and CD. The plain old audio cassette is dying a slow death as far as things are going. I think in the next few years, digital technology will pick up on this.

4. In what circumstances do you use a PC? i.e. at work, at home, at friends houses, at Internet cafes, at libraries etc.

Work, home. I am a fairly conversant PC user.

5. Are you involved in the Music Industry? i.e. performer, artist, writer/composer, consumer, retailer, distributor, record label.

Orchestra Manager, TSO. Encompasses everything from managing the operations and logistics of the performing company to human resource management, contracts, employing artists and all of that sort of stuff. There is also an artistic administration role in that I work with other staff here in planning and structuring the repertoire and performance schedule of the orchestra. It is a pretty broad based job and is very interesting and it keeps me busy.

6. From your perspective has Internet technology influenced a change in the music industry?

It has in that on news and industry bulletins, we are always reading about MP3 technology and how it is affecting the commercial CD market, piracy and all of that sort of stuff. And so I am aware of it but not directly exposed to it in that regard. The TSO is quite a busy recording orchestra, but I image the large majority of the influence has more to do with the pop music side of things rather than with the classical side of things. So from that perspective, yes, I guess it has influenced a change.

From the classical music side of things, as far as I am aware, it has been pretty slow to catch on in that regard. But then I am not personally aware of any arrangement so far where people can subscribe and download classical music from the Internet, but that might be my short sightedness.

As far as the TSO is concerned, all of our recording is done on CD technology or DVD technology.

7. Are you aware of anyone responsible for monitoring digital music use on the Internet? If so, who? e.g. Internet service providers, Consumers, Artists, Recording labels, Manufacturers, Government etc.

Not directly. I guess there is a governing body, or rather a monitoring body APRA within the music field, and we have to do all sorts of reporting to them. But to name somebody specifically I am not able to do that.

8. Do you believe Record companies have a lot of power with regard to the distribution of music on the Internet through digital music technology? If so, how much?

I suppose if you equate a person's litigation ability with power, then yes, I guess this is the case. But the infrastructure they would need to have in place to monitor that would be a pretty daunting prospect.

So, they may think that they have a lot of power, but realistically perhaps they don't. That's why every now and then through the media that we are made of various litigation about this sort of thing.

My belief as far as classical music goes is that perhaps there doesn't seem to be as much of an issue as there is with popular music. And I think that eventually and it probably already has infiltrated the classical music industry, but it just is not reaching the media and litigation as it is with popular music.

9. Do you believe Artists have a say with regard to the distribution of music on the Internet through digital music technology? If so how much?

Well artists undertake their contractual arrangements and so on, but it is hard to say and I don't feel like I have a thorough enough understanding as to what goes on in the computer industry to know how much control can be maintained. I have to say that if I was an artist that I would have a concern if my material was signed up to be distributed through MP3 technology. To me there doesn't seem to be the kind of infrastructure in place to monitor it.

Maybe MP3 technology is another avenue in which we can find new talent and access artists. But I don't think it is being used to its full potential, and at the moment its scope if very defined as far as usage goes.

10. In your opinion does the consumer control distribution of music on the Internet through digital music technology?

Yes. The scope is huge and I suppose that the shift is giving the consumer more options.

11. From your perspective, do you believe that there is a positive shift in the balance of power from the record companies to the consumer? Or do you believe it is the other way around?

From my professional perspective it is not a positive shift, because from a professional capacity I would be keen to see the integrity maintained. But from a personal point of view, it is the way technology is going these days and you have to hit the ground with your feet running to keep up with technology, but you can't fight the movement.

Both the consumer and the industry are trying to get the edge through keeping up with technology.

12. In the emerging/new technological environment, how do you feel record companies and artists will protect their copyrighted works? i.e. Legislation, new technology, security measures such as encryption, pay per play etc.

There will always be various combinations, and various ways of monitoring and controlling it. The best way in my personal opinion is the security measures such as encryption and pay-per-play.

When it comes to computers there always seems to be some way around it, and companies can work very hard to protect their product, but there always seems to be some way around it.

13. Has digital music technology become the catalyst for changes in the music industry?

As far as the popular music industry is concerned, yes.

The classical music industry will probably also see these changes, but as I said they will probably take a little longer to catch on.

14. Have you ever used Peer to Peer sharing software/technology?

No.

15. If so, how often do you use Peer to Peer technology?

Not applicable.

16. Have you ever heard of organisations such as Napster, MP3.com, Winmx, Gnutella and KaZaA?

I have heard of Napster, and I am aware of this because of the publicity it has received as a result of litigation, and I've also heard of MP3.com but I haven't heard of the others.

17. How often do you use the software?

I have never used it.

18. Are you familiar with the court case involving the Recording Industry Association of America v. Napster? If so did you agree with the result?

I became aware of it through the media, but I am not specifically aware of it. I know that there was conflict between the two groups. To be honest I don't know what the result was, but certainly through the media I was aware of litigation taking place.

19. Do you believe statutory licensing arrangements would help control the distribution of music over the Internet?

I don't think I really have a thorough enough understanding of the technology industry, to give a truly educated answer, but it strikes me that people responsible for hosting the

technology should take responsibility for the legality of the distribution. But it is the nature of the beast that as far as copyrighting is concerned there is always a way around it or a perceived way around it.

20. Do you believe subscription models such as "pay per play" help to control the distribution of music over the Internet?

Yes, I think that different models have different level of effectiveness.

21. From your perspective how effective has litigation through court cases been to control the distribution of music over the Internet?

Effective in so far as increasing awareness, then yes. Effective from a commercial point of view – with my limited understanding, then no.

22. Are there other alternatives to control and monitor the distribution of music on the Internet? If so, what do you believe they are?

It could become a whole new realm. Ideally you just have one body to manage it all, but to do that and the size and the infrastructure would be hard to contemplate this happening.

We have essentially been responsible for all of the advances in technology, so in many respects we have been working against ourselves. We keep inventing new systems, but in many respects we don't want to accept the consequences.

23. Who do you believe is the main benefactor of the recent technological changes in music industry? i.e. Internet service providers, Consumers, Artists, Recording labels.

To me I think it is clearly the consumer. For obvious reasons.

24. Do you believe that in the current environment, a new/emerging artist can develop and prosper in the music industry without signing a recording contract?

As far as I am aware at the moment, probably not. But I imagine down the line that it is entirely possible. It also depends what kind of industry you are looking at. But certainly it may assist in terms of creating an a forum for people to have access to an artist's music.

25. Do you believe that digital music technology has reached its limit? If so, why?

Definitely not. It is dictated by the amount and the access that people have to the technology. So whilst there is probably a high percentage of people without access to this technology it isn't at its potential. But as people have greater access and are educated about the technology then it will start to reach its potential.

26. Do you believe that another technology will emerge to replace digital music technology?

At this stage I would probably say now, but if you look at when CD's came out, people thought we had reached the end and had reached the glass ceiling as far as technology was concerned, and look how far we have come since then. So I am sure that in the future we will be surprised by the kinds of new technologies that will emerge.

27. Do you believe the consequences for illegally distributing copyrighted music on the Internet are adequate?

From what I have observed I would say they are not adequate (from the situations that I have been made aware of), but having said that, it is a questions of how much emphasis, or resource or energy do the powers that be want to inject into it. Is there significant enough demand (enough going on) to inject these required resources towards it?

Even if the consequences are adequate, perhaps the enforceability, controllability is not adequate, or simply too hard to monitor?

In my opinion there are probably bigger probably bigger problems to deal with.

28. Do you believe the law currently plays an important role in controlling digital music distribution on the Internet? If so, how?

I think that it is important for the laws to be in place, and perhaps this will have some preventative measure, but the question still remains do they or will they have enough resources to control it.

29. In your opinion will the use of digital music technology continue to grow?

I think so. I would like to see it grow more in the classical music field. There are commercial opportunities there, and especially for this orchestra, but to do this we really need to immerse ourselves in the technology.

I image there is still a degree of risk in any new technology that we embrace, and we need to be as much aware of that as possible before we do.

Interview 2
Slava Gregorian
Musical Artist
28 March 2003

1. Are you familiar with digital music technology?

Yes

2. Have you ever used digital music technology? If so how often?

About 2 or 3 years ago when it first really became common. Apart from looking at sites like Napster, I've used it terms of compressing audio files into MP3 which is something musicians often do when emailing files from one to another. The quality isn't great, but these things are not something to work with, but MP3 files are a guide to hear an example or demonstration.

I don't use it that often.

3. In what capacity have you used digital music technology? i.e. work, personal use, distribution, education etc?

In work terms it has been just for sending audio files from one colleague to another.

I've also seen it used in an audition/demonstration capacity.

4. In what circumstances do you use a PC? i.e. at work, at home, at friends houses, at Internet cafes, at libraries etc.

I use a PC in a home office environment for correspondence. There are also some sheet music publishing programs that I use when I have a little bit of additional time and I don't want to scroll something out by hand. But usually just word documents, e-mail and the like.

As I am not an electronic musician per say, I don't compose music with a computer, as many do now days with sequencing programs.

But all the recording that I am doing now days is actually done on a computer using "protools" program, and this has been a huge development.

5. Are you involved in the Music Industry? i.e. performer, artist, writer/composer, consumer, retailer, distributor, record label.

I am a guitarist. I compose a bit, but live performance and recording are the most significant things that I do.

6. From your perspective has Internet technology influenced a change in the music industry?

Yes. It hasn't really changed the way I do things, but it has changed that ways many musicians publicise and distribute their music and it is very commonly used now, and even though it is only in its early stages it will become the biggest influence in the recorded music industry.

7. Are you aware of anyone responsible for monitoring digital music use on the Internet? If so, who? e.g. Internet service providers, Consumers, Artists, Recording labels, Manufacturers, Government etc.

Not monitoring, no. But I am not very familiar with this. The only use I have really had was an observer when Napster was at its peak, just to see what it was all about.

8. Do you believe Record companies have a lot of power with regard to the distribution of music on the Internet through digital music technology? If so, how much?

I don't think they have power. They do what they can to prevent it, but I don't think they have power.

I've never felt very possessive about people downloading my stuff, but then I am not talking about millions of dollars lost in album sales, so I guess in my case I would encourage it. But if people were able to download samples of my music, that could be a really nice balance.

9. Do you believe Artists have a say with regard to the distribution of music on the Internet through digital music technology? If so how much?

Not really, because all it takes is one person to post it up somewhere, and a lot of these programs now say KaZaA means that artists really don't have too much of a say.

10. In your opinion does the consumer control distribution of music on the Internet through digital music technology?

I think that they do. They either do or they don't, but as far as sampling is concerned it is great. The quality is poorer than on CD, but it enables the consumer to make the decision as to whether they go out and buy it. The consumer has the choice.

11. From your perspective, do you believe that there is a positive shift in the balance of power from the record companies to the consumer? Or do you believe it is the other way around?

It is probably a bit of both.

12. In the emerging/new technological environment, how do you feel record companies and artists will protect their copyrighted works? i.e. Legislation, new technology, security measures such as encryption, pay per play etc.

In terms of selling a product like a CD, there needs to be a fairly solid encryption process. But whatever the case is, it just gets so complicated. But as I said before as far as sampling is concerned there could be a really great balance.

13. Has digital music technology become the catalyst for changes in the music industry?

Yes, it has obviously changed everything about the industry. The recording industry has obviously made huge changes, and there is obviously no going back now.

14. Have you ever used Peer to Peer sharing software/technology?

Only a few times, years ago, and to be honest, I never really took to it. I'm always a bit cautious with stuff like that. I had a friend who had pretty tight security on his computer and had a broadband connection that used to alert him when there was security interference, and I think it was Napster or something else that he was using, and he always had this thing popping up to suggest that different users were trying to access his computer, obviously not just the shareware files but others as well. And although I don't have anything of value on my hard disk, just the concept frightened me a little.

It is such an unchartered territory.

15. If so, how often do you use Peer to Peer technology?

As I said, just a few times a couple of years ago, but AI don't anymore, just because of the security issue.

16. Have you ever heard of organisations such as Napster, MP3.com, Winmx, Gnutella and KaZaA?

I have heard of Napster, and KaZaA and I think I've heard of MP3.com as well.

17. How often do you use the software?

As above.

18. Are you familiar with the court case involving the Recording Industry Association of America v. Napster? If so did you agree with the result?

Well, what did it achieve really? Napster is gone, but they are going to have to do the same thing again every time. So in reality it hasn't solved the problem, it was just one little case in the scheme of things.

If labels actually set up their own sites, then you would be getting rid of the recording industry as we know it, but they might have some more control.

19. Do you believe licensing arrangements would help control the distribution of music over the Internet?

It would probably assist commercial sites. Technically speaking even if there was a little jingle that played when a user opened up a web site, there would be a composer of that jingle that would probably have right to some sort of royalty each time the site was entered.

So if every web site that had music embedded had to become a member of some sort of regulatory body, then this would be a beneficial sort of membership and artists wouldn't be complaining as much.

20. Do you believe subscription models such as "pay per play" help to control the distribution of music over the Internet?

I don't know. That is a tough one to answer. Even if it was a miniscule amount (like 2 or 5 cents), I feel that I personally would prefer to pay for the download, so I don't think that I'd like to pay every time I wanted to listen.

21. From your perspective how effective has litigation through court cases been to control the distribution of music over the Internet?

Not answered.

22. Are there other alternatives to control and monitor the distribution of music on the Internet? If so, what do you believe they are?

What I just mentioned about membership to a body would be one way, and then in theory you could get away with artists not even having albums as such, and users could just purchase what they want.

23. Who do you believe is the main benefactor of the recent technological changes in music industry? i.e. Internet service providers, Consumers, Artists, Recording labels.

The consumers at the moment because they are able to get something for nothing. And although I am not angry about this at all, and rather that it is something we can all learn from.

The possibility of being able to download a work at a time, well the whole concept just opens up new possibilities, so it seems strange that we are still holding on to the typical 1 hour of music CD.

24. Do you believe that in the current environment, a new/emerging artist can develop and prosper in the music industry without signing a recording contract?

Yes, absolutely. There are obvious benefits, and nowadays musicians are being a lot more hands on in terms of the business side of things and are becoming a lot more hands

on with establishing their own web sites and areas that they just wouldn't have thought about before. So now they have more control, and it is changing the involvement of the artist completely so that now there is almost no one between the artist and the audience.

Obviously there are still others that are needed in other capacities (A&R managers and the like) but in the traditional sense it is changing.

25. Do you believe that digital music technology has reached its limit? If so, why?

No. Quality will get better, downloads will be quicker. Just like the progress in computers themselves, everything gets smaller and quicker and better technology.

26. Do you believe that another technology will emerge to replace digital music technology?

I'm not sure. MP3 technology will get better. But the actual concept will probably stay the same.

27. Do you believe the consequences for illegally distributing copyrighted music on the Internet are adequate?

I don't know of anyone who has been penalised.

If we are looking to enhance this technology to make sure that everyone benefits, then obviously the rules need to be cracked down upon. But from an individual point of view I think it would be difficult to enforce the rules for each and every individual.

28. Do you believe the law currently plays an important role in controlling digital music distribution on the Internet? If so, how?

Yes.

29. In your opinion will the use of digital music technology continue to grow?

Yes, I think so, and we have already spoken about this.

I think that in essence, at least at the moment that even if people listen to music on the Internet, if there is something that they like, they will still buy the CD.

Interview 3
Rick Szabo
Tour Manager
8 June 2004

1. **Are you familiar with digital music technology?**

   Yes.

2. **Have you ever used digital music technology? If so how often?**

   No.

3. **In what capacity have you used digital music technology? i.e. work, personal use, distribution, education etc?**

   Not applicable.

4. **In what circumstances do you use a PC? i.e. at work, at home, at friends houses, at Internet cafes, at libraries etc.**

   Work, home office and on tour.

5. **Are you involved in the Music Industry? i.e. performer, artist, writer/composer, consumer, retailer, distributor, record label.**

   Yes. Performer and Tour Manager.

6. **From your perspective has Internet technology influenced a change in the music industry?**

   Yes.

7. **Are you aware of anyone responsible for monitoring digital music use on the Internet? If so, who? e.g. Internet service providers, Consumers, Artists, Recording labels, Manufacturers, Government etc.**

   No.

8. **Do you believe Record companies have a lot of power with regard to the distribution of music on the Internet through digital music technology? If so, how much?**

   No.

9. **Do you believe Artists have a say with regard to the distribution of music on the Internet through digital music technology? If so how much?**

   No.

10. In your opinion does the consumer control distribution of music on the Internet through digital music technology?

No.

11. From your perspective, do you believe that there is a positive shift in the balance of power from the record companies to the consumer? Or do you believe it is the other way around?

Yes.

12. In the emerging/new technological environment, how do you feel record companies and artists will protect their copyrighted works? i.e. Legislation, new technology, security measures such as encryption, pay per play etc.

Question not answered. Answers provided by fax.

13. Has digital music technology become the catalyst for changes in the music industry?

No.

14. Have you ever used Peer to Peer sharing software/technology?

No.

15. If so, how often do you use Peer to Peer technology?

Not applicable.

16. Have you ever heard of organisations such as Napster, MP3.com, Winmx, Gnutella and KaZaA?

Yes.

17. How often do you use the software?

Not at all.

18. Are you familiar with the court case involving the Recording Industry Association of America v. Napster? If so did you agree with the result?

Yes.

19. Do you believe statutory licensing arrangements would help control the distribution of music over the Internet?

Yes.

20. Do you believe subscription models such as "pay per play" help to control the distribution of music over the Internet?

Yes.

21. From your perspective how effective has litigation through court cases been to control the distribution of music over the Internet?

It has been effective.

22. Are there other alternatives to control and monitor the distribution of music on the Internet? If so, what do you believe they are?

Don't know.

23. Who do you believe is the main benefactor of the recent technological changes in music industry? i.e. Internet service providers, Consumers, Artists, Recording labels.

Consumers.

24. Do you believe that in the current environment, a new/emerging artist can develop and prosper in the music industry without signing a recording contract?

Initially, but eventually they need a label to sign them.

25. Do you believe that digital music technology has reached its limit? If so, why?

No.

26. Do you believe that another technology will emerge to replace digital music technology?

Who knows?

27. Do you believe the consequences for illegally distributing copyrighted music on the Internet are adequate?

No.

28. Do you believe the law currently plays an important role in controlling digital music distribution on the Internet? If so, how?

Not sure.

29. In your opinion will the use of digital music technology continue to grow?

Yes. I think that in essence, at least at the moment that even if people listen to music on the Internet, if there is something that they like, they will still buy the CD.

Interview 4
Shannon Noll
Artist and Performer
8 June 2004

1. **Are you familiar with digital music technology?**

   Yes.

2. **Have you ever used digital music technology? If so how often?**

   No.

3. **In what capacity have you used digital music technology? i.e. work, personal use, distribution, education etc?**

   Not applicable.

4. **In what circumstances do you use a PC? i.e. at work, at home, at friends houses, at Internet cafes, at libraries etc.**

   At home, although not very much.

5. **Are you involved in the Music Industry? i.e. performer, artist, writer/composer, consumer, retailer, distributor, record label.**

   Yes. Artist and Performer.

6. **From your perspective has Internet technology influenced a change in the music industry?**

   Unaware.

7. **Are you aware of anyone responsible for monitoring digital music use on the Internet? If so, who? e.g. Internet service providers, Consumers, Artists, Recording labels, Manufacturers, Government etc.**

   Recording Labels.

8. **Do you believe Record companies have a lot of power with regard to the distribution of music on the Internet through digital music technology? If so, how much?**

   Not a lot of power.

9. **Do you believe Artists have a say with regard to the distribution of music on the Internet through digital music technology? If so how much?**

   No.

10. In your opinion does the consumer control distribution of music on the Internet through digital music technology?

Yes.

11. From your perspective, do you believe that there is a positive shift in the balance of power from the record companies to the consumer? Or do you believe it is the other way around?

Record companies.

12. In the emerging/new technological environment, how do you feel record companies and artists will protect their copyrighted works? i.e. Legislation, new technology, security measures such as encryption, pay per play etc.

Encryption.

13. Has digital music technology become the catalyst for changes in the music industry?

Not yet.

14. Have you ever used Peer to Peer sharing software/technology?

No.

15. If so, how often do you use Peer to Peer technology?

Not applicable.

16. Have you ever heard of organisations such as Napster, MP3.com, Winmx, Gnutella and KaZaA?

Yes.

17. How often do you use the software?

I don't.

18. Are you familiar with the court case involving the Recording Industry Association of America v. Napster? If so did you agree with the result?

Not really.

19. Do you believe licensing arrangements would help control the distribution of music over the Internet?

No.

20. Do you believe subscription models such as "pay per play" help to control the distribution of music over the Internet?

No.

21. From your perspective how effective has litigation through court cases been to control the distribution of music over the Internet?

No effect.

22. Are there other alternatives to control and monitor the distribution of music on the Internet? If so, what do you believe they are?

I don't know.

23. Who do you believe is the main benefactor of the recent technological changes in music industry? i.e. Internet service providers, Consumers, Artists, Recording labels.

Consumers.

24. Do you believe that in the current environment, a new/emerging artist can develop and prosper in the music industry without signing a recording contract?

No.

25. Do you believe that digital music technology has reached its limit? If so, why?

You can't really do much more than copy and distribute a complete album.

26. Do you believe that another technology will emerge to replace digital music technology?

Maybe.

27. Do you believe the consequences for illegally distributing copyrighted music on the Internet are adequate?

No.

28. Do you believe the law currently plays an important role in controlling digital music distribution on the Internet? If so, how?

No, it doesn't.

29. In your opinion will the use of digital music technology continue to grow?

As the world grows, so shall anything associated with it. I think that in essence, at least at the moment that even if people listen to music on the Internet, if there is something that they like, they will still buy the CD.

Interview 5
Simon Bower
Performer, Artist and Writer. Musical Director of Palazzo Versace Hotel.
(Currently on tour with Shannon Noll)
8 April 2004

1. Are you familiar with digital music technology?

Yes.

2. Have you ever used digital music technology? If so how often?

Daily.

3. In what capacity have you used digital music technology? i.e. work, personal use, distribution, education etc?

Backing tracks, audio recordings.

4. In what circumstances do you use a PC? i.e. at work, at home, at friends houses, at Internet cafes, at libraries etc.

Work and home.

5. Are you involved in the Music Industry? i.e. performer, artist, writer/composer, consumer, retailer, distributor, record label.

Yes. Artist, Performer and Writer.

6. From your perspective has Internet technology influenced a change in the music industry?

Yes, it has made music more accessible to the global population. What we are seeing is a reflection of society, we are witnessing a revolution, a complete change in the way society works. I think record companies are at the forefront of that. I think music and technology mould very well together.

It is good for artists too in terms of byte samples and it helps to expose the artist. But abuse of the system would result in artists having a problem and loss of financial revenues.

I don't think artists have a problem with people downloading one or two songs, but any more than this becomes a problem.

7. Are you aware of anyone responsible for monitoring digital music use on the Internet? If so, who? e.g. Internet service providers, Consumers, Artists, Recording labels, Manufacturers, Government etc.

Recording labels, MIPI.

8. Do you believe Record companies have a lot of power with regard to the distribution of music on the Internet through digital music technology? If so, how much?

No.

9. Do you believe Artists have a say with regard to the distribution of music on the Internet through digital music technology? If so how much?

It depends on how involved artists want to be. For example Silverchair wanted some of their songs to be downloaded and they helped to publicise this.

10. In your opinion does the consumer control distribution of music on the Internet through digital music technology?

Yes.

11. From your perspective, do you believe that there is a positive shift in the balance of power from the record companies to the consumer? Or do you believe it is the other way around?

Record companies to the consumer.

12. In the emerging/new technological environment, how do you feel record companies and artists will protect their copyrighted works? i.e. Legislation, new technology, security measures such as encryption, pay per play etc.

Legislation and technological protection measures.

13. Has digital music technology become the catalyst for changes in the music industry?

Yes.

14. Have you ever used Peer to Peer sharing software/technology?

Yes.

15. If so, how often do you use Peer to Peer technology?

Infrequently.

16. Have you ever heard of organisations such as Napster, MP3.com, Winmx, Gnutella and KaZaA?

Yes.

17. How often do you use the software?

When required.

18. Are you familiar with the court case involving the Recording Industry Association of America v. Napster? If so did you agree with the result?

Napster was made an example of, and this was something that had to be done to increase awareness. In many respects the technology is too new for the industry to understand and embrace.

19. Do you believe statutory licensing arrangements would help control the distribution of music over the Internet?

I don't think it makes a lot of difference other than to slow it down a little and frighten people a little. There is still a lot of confusion in the market as to what it all means.

20. Do you believe subscription models such as "pay per play" help to control the distribution of music over the Internet?

Over time it helps to control it, but these things have to be enforced which is difficult.

21. From your perspective how effective has litigation through court cases been to control the distribution of music over the Internet?

It has affected the industry more than the consumer.

22. Are there other alternatives to control and monitor the distribution of music on the Internet? If so, what do you believe they are?

Subscriptions, Virtual jukeboxes, IPods.

23. Who do you believe is the main benefactor of the recent technological changes in music industry? i.e. Internet service providers, Consumers, Artists, Recording labels.

Consumers.

24. Do you believe that in the current environment, a new/emerging artist can develop and prosper in the music industry without signing a recording contract?

No.

25. Do you believe that digital music technology has reached its limit? If so, why?

No. There is definitely more to come. In the last 5 years it has really been developed and there is still more to come.

26. Do you believe that another technology will emerge to replace digital music technology?

Yes, and it will make things more cost effective for the consumer and the industry.

27. Do you believe the consequences for illegally distributing copyrighted music on the Internet are adequate?

They need to be more strict, and there needs to be penalties put in place. Directors of companies should be criminally liable for abusing the system.

28. Do you believe the law currently plays an important role in controlling digital music distribution on the Internet? If so, how?

I don't think so. People don't give a damn. They are more aware, but it isn't going to stop them.

29. In your opinion will the use of digital music technology continue to grow?

Yes.

Interview 6
David Bridie
Artist, Performer and Producer
28 March 2003

1. Are you familiar with digital music technology?

Yes.

2. Have you ever used digital music technology? If so how often?

I've downloaded a couple of covers, and I've sent demo's to musicians.

3. In what capacity have you used digital music technology? i.e. work, personal use, distribution, education etc?

Personal use. I've downloaded some bluegrass and snoop doggy dog, and used it to send demos.

4. In what circumstances do you use a PC? i.e. at work, at home, at friends houses, at Internet cafes, at libraries etc.

Mixing songs in my own studio.

5. Are you involved in the Music Industry? i.e. performer, artist, writer/composer, consumer, retailer, distributor, record label.

Yes. Artist, Performer and Producer.

6. From your perspective has Internet technology influenced a change in the music industry?

Yes, but the quality is restrictive.

7. Are you aware of anyone responsible for monitoring digital music use on the Internet? If so, who? e.g. Internet service providers, Consumers, Artists, Recording labels, Manufacturers, Government etc.

The recording labels are trying to protect their business and artist royalties.

8. Do you believe Record companies have a lot of power with regard to the distribution of music on the Internet through digital music technology? If so, how much?

They do have power but not as much as they used to.

9. Do you believe Artists have a say with regard to the distribution of music on the Internet through digital music technology? If so how much?

Yes, some tracks are difficult to get out, so they can use this technology to make it work for them, but the quality can pose a problem for the artists if they are trying to use it to get their music heard. And even though you can lose, you can also gain from having distribution over the Internet.

10. In your opinion does the consumer control distribution of music on the Internet through digital music technology?

Not really. They think they do but really they don't have the choice. They are manipulated by the music companies as to what is cool and what's not.

11. From your perspective, do you believe that there is a positive shift in the balance of power from the record companies to the consumer? Or do you believe it is the other way around?

There is a shift from the record company to the consumer. They are getting a bit more say to what they listen to. Independent music is much more healthy, and Major labels are buying up the Indies because of technology.

12. In the emerging/new technological environment, how do you feel record companies and artists will protect their copyrighted works? i.e. Legislation, new technology, security measures such as encryption, pay per play etc.

Litigation and encryption, but there are always going to be people who can bypass these technological devices.

13. Has MP3 technology become the catalyst for changes in the music industry?

Yes.

14. Have you ever used Peer to Peer sharing software/technology?

No.

15. If so, how often do you use Peer to Peer technology?

N/A.

16. Have you ever heard of organisations such as Napster, MP3.com, Winmx, Gnutella and KaZaA?

Yes.

17. How often do you use the software?

I don't really.

18. Are you familiar with the court case involving the Recording Industry Association of America v. Napster? If so did you agree with the result?

Yes, but I'm not convinced about the result and what it has achieved. I think it would be better for the industry to embrace the technology and make it work for them.

19. Do you believe licensing arrangements would help control the distribution of music over the Internet?

Yes, and I think people would accept it if it could be done, but it comes down to whether it can be controlled.

20. Do you believe subscription models such as "pay per play" help to control the distribution of music over the Internet?

This could be effective if people want to buy a body of work, but I can't see how this can work effectively.

21. From your perspective how effective has litigation through court cases been to control the distribution of music over the Internet?

Not really sure.

22. Are there other alternatives to control and monitor the distribution of music on the Internet? If so, what do you believe they are?

Not sure.

23. Who do you believe is the main benefactor of the recent technological changes in music industry? i.e. Internet service providers, Consumers, Artists, Recording labels.

Consumers are the main benefactors.

24. Do you believe that in the current environment, a new/emerging artist can develop and prosper in the music industry without signing a recording contract?

Yes, for musicians who are hands on, they can use it to have their work heard. Most people prefer to buy a CD after they have heard a sample, so it could be a benefit. The labels have more marketing spend and I will be signing with a label shortly.

25. Do you believe that digital music technology has reached its limit? If so, why?

No. it will become faster, smaller and better quality.

26. Do you believe that another technology will emerge to replace digital music technology?

Streaming and MP4 technology might be an alternative.

27. Do you believe the consequences for illegally distributing copyrighted music on the Internet are adequate?

They are adequate. But in the peer-to-peer environment they need to be cracked down upon.

28. Do you believe the law currently plays an important role in controlling digital music distribution on the Internet? If so, how?

The Napster case should play a role, but nothing much has changed. It probably will in the future.

29. In your opinion will the use of digital music technology continue to grow?

Yes it will become better.

Interview 7
Christophe David, Les Trois des la Haboa
Performer, Artist and Writer
2 April 2003
(Interview translated from French)

1. Are you familiar with digital music technology?

Very little.

2. Have you ever used digital music technology? If so how often?

Not very often. I don't think it is such a great thing.

3. In what capacity have you used digital music technology? i.e. work, personal use, distribution, education etc?

Only as a request have I used it to send demonstrations.

4. In what circumstances do you use a PC? i.e. at work, at home, at friends houses, at Internet cafes, at libraries etc.

I work from home, and I use graphic design software.

5. Are you involved in the Music Industry? i.e. performer, artist, writer/composer, consumer, retailer, distributor, record label.

Yes. A producer and editor, I make musical arrangements, and I'm an artistic director and manager.

6. From your perspective has Internet technology influenced a change in the music industry?

It has increased the speed used to transmit information, but the problem is with copyright. There is no creative value with the Internet because of copyright breeches.

7. Are you aware of anyone responsible for monitoring digital music use on the Internet? If so, who? e.g. Internet service providers, Consumers, Artists, Recording labels, Manufacturers, Government etc.

No.

8. Do you believe Record companies have a lot of power with regard to the distribution of music on the Internet through digital music technology? If so, how much?

No, it isn't their job.

9. Do you believe Artists have a say with regard to the distribution of music on the Internet through digital music technology? If so how much?

No, it isn't their job either and it is hard to fight against free access on the Internet.

10. In your opinion does the consumer control distribution of music on the Internet through digital music technology?

Yes, but the consumer must have a civic sense and they must be educated to have respect for the artist creating the work. The Internet is like visiting people. You don't go into someone's house and pinch everything, so they shouldn't do it on the Internet either.

11. From your perspective, do you believe that there is a positive shift in the balance of power from the record companies to the consumer? Or do you believe it is the other way around?

There is a shift away from the company.

12. In the emerging/new technological environment, how do you feel record companies and artists will protect their copyrighted works? i.e. Legislation, new technology, security measures such as encryption, pay per play etc.

I don't think they will be able to.

13. Has digital music technology become the catalyst for changes in the music industry?

No, the music industry has not changed very much.

14. Have you ever used Peer to Peer sharing software/technology?

I have heard about it but not used it.

15. If so, how often do you use Peer to Peer technology?

I haven't, and I don't think it is very well known.

16. Have you ever heard of organisations such as Napster, MP3.com, Winmx, Gnutella and KaZaA?

Napster, MP3.com and KaZaA.

17. How often do you use the software?

Not really applicable.

18. Are you familiar with the court case involving the Recording Industry Association of America v. Napster? If so did you agree with the result?

Yes. I'm happy with the result. Closing Napster was a good decision. These people were earning money from other people's efforts for no work.

19. Do you believe statutory licensing arrangements would help control the distribution of music over the Internet?

I think it is a good idea. But there is not enough of it. There is a body in France, but there needs to be more.

20. Do you believe subscription models such as "pay per play" help to control the distribution of music over the Internet?

It is practical to have a system like this on the internet. It will help to control things.

21. From your perspective how effective has litigation through court cases been to control the distribution of music over the Internet?

A little but not a lot.

22. Are there other alternatives to control and monitor the distribution of music on the Internet? If so, what do you believe they are?

Ii don't think that if we change things it will make it better, There will always be a black market.

23. Who do you believe is the main benefactor of the recent technological changes in music industry? i.e. Internet service providers, Consumers, Artists, Recording labels.

Consumers and Internet Service Providers.

24. Do you believe that in the current environment, a new/emerging artist can develop and prosper in the music industry without signing a recording contract?

No, it isn't really possible. Unknown artists cannot easily become known through the internet, only the already known ones.

25. Do you believe that digital music technology has reached its limit? If so, why?

It can still with better quality and better distribution.

26. Do you believe that another technology will emerge to replace digital music technology?

Yes, it changes all the time.

27. Do you believe the consequences for illegally distributing copyrighted music on the Internet are adequate?

No.

28. Do you believe the law currently plays an important role in controlling digital music distribution on the Internet? If so, how?

Yes, and it is the law that will eventually take control.

29. In your opinion will the use of digital music technology continue to grow?

No, I think it has reached its limit. People still like to buy records.

Interview 8
Barry Bull
Ex-Sony Music Executive, Member of the Australian Retailers Association and owner of Toombul Music (Author of "A Little Bull Goes A Long Way")

28 November 2003

1. Are you familiar with digital music technology?

Yes.

2. Have you ever used digital music technology? If so how often?

No.

3. In what capacity have you used digital music technology? i.e. work, personal use, distribution, education etc?

N/A.

4. In what circumstances do you use a PC? i.e. at work, at home, at friends houses, at Internet cafes, at libraries etc.

Work and home.

5. Are you involved in the Music Industry? i.e. performer, artist, writer/composer, consumer, retailer, distributor, record label.

Yes. Used to be a Sony Music Executive but now own music retail stores.

6. From your perspective has Internet technology influenced a change in the music industry?

Yes, it has made music more accessible to consumers.

7. Are you aware of anyone responsible for monitoring digital music use on the Internet? If so, who? e.g. Internet service providers, Consumers, Artists, Recording labels, Manufacturers, Government etc.

The Music industry.

8. Do you believe Record companies have a lot of power with regard to the distribution of music on the Internet through digital music technology? If so, how much?

No.

9. Do you believe Artists have a say with regard to the distribution of music on the Internet through digital music technology? If so how much?

Not really. In the past the music industry dictated terms. Now, consumers show the way. It was only two years ago that the music industry decided to incorporate digital distribution clauses in their contracts.

10. In your opinion does the consumer control distribution of music on the Internet through digital music technology?

Yes.

11. From your perspective, do you believe that there is a positive shift in the balance of power from the record companies to the consumer? Or do you believe it is the other way around?

Record companies to the consumer.

12. In the emerging/new technological environment, how do you feel record companies and artists will protect their copyrighted works? i.e. Legislation, new technology, security measures such as encryption, pay per play etc.

Legislation, litigation and technological protection measures.

13. Has digital music technology become the catalyst for changes in the music industry?

No but it is a factor. The music industry was always going to get caught in the cross fire. Unfortunately, it came sooner than they thought. The music industry has been arrogant for some time.

The music industry needed a shake up to get the cob webs out. For example, Australian Idol, that Guy Sebastien, he wins Idol and sells more singles than Elton John. That is ridiculous because I can tell you he would never and to this day been even considered for a record deal had he not been on that show.

That is the power of the entertainment industry. The music industry will continue to evolve and adapt itself and continue on for a few more decades yet. A prediction though is that the Big Five will have to become the Big Three maybe Four. Consumer demand will force restructures.

Another thing, my business which is based on a physical product CD's is slowing down. I have decided to focus the business on DVD home theatre systems because in the future CDs and CD stores may not exist. Such is the impact of MP3s.

14. Have you ever used Peer to Peer sharing software/technology?

No.

15. If so, how often do you use Peer to Peer technology?

N/A

16. Have you ever heard of organisations such as Napster, MP3.com, Winmx, Gnutella and KaZaA?

Yes.

17. How often do you use the software?

Never.

18. Are you familiar with the court case involving the Recording Industry Association of America v. Napster? If so did you agree with the result?

Yes and I also agreed with the result.

19. Do you believe statutory licensing arrangements would help control the distribution of music over the Internet?

Not really. If a pirate wants to steal something they will. All that will do is give something back to the Artists and the industry.

20. Do you believe subscription models such as "pay per play" help to control the distribution of music over the Internet?

I think this will help control the illegitimate files. However, the problem is the cost to the consumer. The Music industry needs a better pricing model for consumers to go for it.

21. From your perspective how effective has litigation through court cases been to control the distribution of music over the Internet?

Not very. It has affected the industry more so.

22. Are there other alternatives to control and monitor the distribution of music on the Internet? If so, what do you believe they are?

I think Apple have got something with iPod and iTunes there. Supplying a hardware and software option i.e. service as well.

23. Who do you believe is the main benefactor of the recent technological changes in music industry? i.e. Internet service providers, Consumers, Artists, Recording labels.

Consumers.

24. Do you believe that in the current environment, a new/emerging artist can develop and prosper in the music industry without signing a recording contract?

No.

25. Do you believe that digital music technology has reached its limit? If so, why?

No.

26. Do you believe that another technology will emerge to replace digital music technology?

Probably.

27. Do you believe the consequences for illegally distributing copyrighted music on the Internet are adequate?

No, criminal penalties are the way to go.

28. Do you believe the law currently plays an important role in controlling digital music distribution on the Internet? If so, how?

I don't think so. They are more aware, but it isn't going to stop them.

29. In your opinion will the use of digital music technology continue to grow?

Yes.

Interview 9
Stephen Gregory
Sound Recording Engineer, Lecturer Bond University IT School and owner of G-netech an IT solutions and marketing company.

20 October 2004

1. **Are you familiar with digital music technology?**

   Yes.

2. **Have you ever used digital music technology? If so how often?**

   Yes all the time.

3. **In what capacity have you used digital music technology? i.e. work, personal use, distribution, education etc?**

   For work mainly.

4. **In what circumstances do you use a PC? i.e. at work, at home, at friends houses, at Internet cafes, at libraries etc.**

   Work and home.

5. **Are you involved in the Music Industry? i.e. performer, artist, writer/composer, consumer, retailer, distributor, record label.**

   Yes have worked for a number of bands and recording studios.

6. **From your perspective has Internet technology influenced a change in the music industry?**

   Yes, it has drastically changed the industry.

7. **Are you aware of anyone responsible for monitoring digital music use on the Internet? If so, who? e.g. Internet service providers, Consumers, Artists, Recording labels, Manufacturers, Government etc.**

   No.

8. **Do you believe Record companies have a lot of power with regard to the distribution of music on the Internet through digital music technology? If so, how much?**

   No not much influence at all.

9. Do you believe Artists have a say with regard to the distribution of music on the Internet through digital music technology? If so how much?

It depends. Uncontracted musicians may utilise it more so. I think contracted musicians are influenced by the recording studios.

10. In your opinion does the consumer control distribution of music on the Internet through digital music technology?

Yes.

11. From your perspective, do you believe that there is a positive shift in the balance of power from the record companies to the consumer? Or do you believe it is the other way around?

Record companies to the consumer.

12. In the emerging/new technological environment, how do you feel record companies and artists will protect their copyrighted works? i.e. Legislation, new technology, security measures such as encryption, pay per play etc.

Legislation and litigation mainly.

13. Has MP3 technology become the catalyst for changes in the music industry?

Not sure I think it has. Certainly it has affected the music industry but I think most things aside it is business as usual for them besides a few annoying Pirates.

14. Have you ever used Peer to Peer sharing software/technology?

Yes occasionally when I need to find something obscure.

15. If so, how often do you use Peer to Peer technology?

Rarely but I use the legitimate services and pay.

16. Have you ever heard of organisations such as Napster, MP3.com, Winmx, Gnutella and KaZaA?

Yes.

17. How often do you use the software?

Again rarely.

18. Are you familiar with the court case involving the Recording Industry Association of America v. Napster? If so did you agree with the result?

Yes to both.

19. Do you believe statutory licensing arrangements would help control the distribution of music over the Internet?

Not really. It just gives some royalties back to the artists.

20. Do you believe subscription models such as "pay per play" help to control the distribution of music over the Internet?

No they can be unreliable.

21. From your perspective how effective has litigation through court cases been to control the distribution of music over the Internet?

Not very.

22. Are there other alternatives to control and monitor the distribution of music on the Internet? If so, what do you believe they are?

Probably DRM technologies will help.

23. Who do you believe is the main benefactor of the recent technological changes in music industry? i.e. Internet service providers, Consumers, Artists, Recording labels.

Consumers.

24. Do you believe that in the current environment, a new/emerging artist can develop and prosper in the music industry without signing a recording contract?

Probably Not.

25. Do you believe that digital music technology has reached its limit? If so, why?

No.

26. Do you believe that another technology will emerge to replace digital music technology?

Yes.

27. Do you believe the consequences for illegally distributing copyrighted music on the Internet are adequate?

No.

28. Do you believe the law currently plays an important role in controlling digital music distribution on the Internet? If so, how?

Yes. Educates the public that it is a bad thing and takes away an artist's livelihood.

29. In your opinion will the use of MP3 technology continue to grow?

Yes.

Interview 10
Marcus Fowler
Business Affairs Manager Shock Records (Independent Label)

20 December 2004

1. Are you familiar with digital music technology?

Yes.

2. Have you ever used digital music technology? If so how often?

Rarely, but for work analysis and enforcement reasons.

3. In what capacity have you used digital music technology? i.e. work, personal use, distribution, education etc?

N/A

4. In what circumstances do you use a PC? i.e. at work, at home, at friends houses, at Internet cafes, at libraries etc.

Work and home.

5. Are you involved in the Music Industry? i.e. performer, artist, writer/composer, consumer, retailer, distributor, record label.

Yes, I am a business affairs advisor for a record company.

6. From your perspective has Internet technology influenced a change in the music industry?

Yes, it has drastically changed the industry. It has caused the music industry huge losses in sales revenue and artists royalties.

7. Are you aware of anyone responsible for monitoring MP3 use on the Internet? If so, who? e.g. Internet service providers, Consumers, Artists, Recording labels, Manufacturers, Government etc.

RIAA, MIPI and IFPI. Oh, and the labels.

8. Do you believe Record companies have a lot of power with regard to the distribution of music on the Internet through digital music technology? If so, how much?

I think the labels are adapting and you will find that they are pushing for a greater legitimate stake in the sales and through e-commerce. The record companies are now pursuing a policy of making their product a convenient preferred option so as to render the experience of illegal file transfers an inferior way of obtaining music.

9. Do you believe Artists have a say with regard to the distribution of music on the Internet through digital music technology? If so how much?

I think musicians have a big say. They will normally require these rights to be covered in their contracts. Uncontracted musicians probably more so. Performers rights will be negotiated into their contracts but the music industry is not too concerned with these new rights as they will undoubtedly be licensed if the recording artist wants a contract.

10. In your opinion does the consumer control distribution of music on the Internet through digital music technology?

Yes. They do in the legitimate sense. But the labels are getting back some ground with legitimate models on the Internet.

11. From your perspective, do you believe that there is a positive shift in the balance of power from the record companies to the consumer? Or do you believe it is the other way around?

I think we have seen it go from the record companies to the pirate and I think it is coming back to the industry through the services the labels can offer.

12. In the emerging/new technological environment, how do you feel record companies and artists will protect their copyrighted works? i.e. Legislation, new technology, security measures such as encryption, pay per play etc.

Legislation, enforcement, education and DRM technologies.

13. Has digital music technology become the catalyst for changes in the music industry?

It has certainly affected the industry – yes.

14. Have you ever used Peer to Peer sharing software/technology?

Never illegitimate services. Only legitimate services.

15. If so, how often do you use Peer to Peer technology?

Rarely, but I use the legitimate services and pay.

16. Have you ever heard of organisations such as Napster, MP3.com, Winmx, Gnutella and KaZaA?

Yes.

17. How often do you use the software?

Never.

18. Are you familiar with the court case involving the Recording Industry Association of America v. Napster? If so did you agree with the result?

Do not wish to comment due to impending proceedings in the Courts.

19. Do you believe statutory licensing arrangements would help control the distribution of music over the Internet?

Music licensing is going to eventually become as big as consumer sales. In the long term, the music industry is going more toward music as much as a service as a set of products.

20. Do you believe subscription models such as "pay per play" help to control the distribution of music over the Internet?

It is but one of many alternatives at the moment

21. From your perspective how effective has litigation through court cases been to control the distribution of music over the Internet?

Do not wish to comment.

22. Are there other alternatives to control and monitor the distribution of music on the Internet? If so, what do you believe they are?

Probably DRM technologies will be the best way forward to control it.

23. Who do you believe is the main benefactor of the recent technological changes in music industry? i.e. Internet service providers, Consumers, Artists, Recording labels.

Do not wish to comment.

24. Do you believe that in the current environment, a new/emerging artist can develop and prosper in the music industry without signing a recording contract?

Probably Not.

25. Do you believe that digital music technology has reached its limit? If so, why?

No new technologies emerge.

26. Do you believe that another technology will emerge to replace digital music technology?

Yes.

27. Do you believe the consequences for illegally distributing copyrighted music on the Internet are adequate?

Can not comment.

28. Do you believe the law currently plays an important role in controlling digital music distribution on the Internet? If so, how?

Yes.

29. In your opinion will the use of digital music technology continue to grow?

Not sure.

Interview 11
Michael Speck
Manager Music Industry Piracy Investigations

14 December 2004

1. **Are you familiar with digital music technology?**

   Yes.

2. **Have you ever used digital music technology? If so how often?**

   Only for tracking and enforcement reasons.

3. **In what capacity have you used digital music technology? i.e. work, personal use, distribution, education etc?**

   Work.

4. **In what circumstances do you use a PC? i.e. at work, at home, at friends houses, at Internet cafes, at libraries etc.**

   Work and home.

5. **Are you involved in the Music Industry? i.e. performer, artist, writer/composer, consumer, retailer, distributor, record label.**

   Yes, I enforce the rights of the artists and music industry against those who infringe music copyright without their authority.

6. **From your perspective has Internet technology influenced a change in the music industry?**

   Yes, it has drastically changed the industry. It has caused the music industry huge losses in sales revenue and artists royalties.

7. **Are you aware of anyone responsible for monitoring digital music use on the Internet? If so, who? e.g. Internet service providers, Consumers, Artists, Recording labels, Manufacturers, Government etc.**

   MIPI, ARIA, Federal Police and the overseas enforcement organisations such as RIAA and IFPI. I think the Internet has provided an administrative nightmare to agencies based and brought up on dealing regionally.

8. Do you believe Record companies have a lot of power with regard to the distribution of music on the Internet through digital music technology? If so, how much?

I think the labels are adapting to the changes and you will find a stronger presence on the e-commerce sector.

9. Do you believe Artists have a say with regard to the distribution of music on the Internet through digital music technology? If so how much?

I think musicians have a very big say.

10. In your opinion does the consumer control distribution of music on the Internet through digital music technology?

Absolutely. If they didn't I wouldn't be in a job.

11. From your perspective, do you believe that there is a positive shift in the balance of power from the record companies to the consumer? Or do you believe it is the other way around?

Absolutely not positive. These pirates have stolen legitimate sales and royalties from the artists and the recording industry. I think you will find very soon that the industry will secure some of that lost ground shortly.

12. In the emerging/new technological environment, how do you feel record companies and artists will protect their copyrighted works? i.e. Legislation, new technology, security measures such as encryption, pay per play etc.

Legislation, enforcement, education, new business models and DRM technologies.

13. Has digital music technology become the catalyst for changes in the music industry?

It has certainly affected the industry – yes.

14. Have you ever used Peer to Peer sharing software/technology?

Never illegitimate services.

15. If so, how often do you use Peer to Peer technology?

Rarely, but I use the legitimate services and pay.

16. Have you ever heard of organisations such as Napster, MP3.com, Winmx, Gnutella and KaZaA?

Yes.

17. How often do you use the software?

Never.

18. Are you familiar with the court case involving the Recording Industry Association of America v. Napster? If so did you agree with the result?

Yes. Absolutely agreed with the result. These illegal P2P services must be shut down.

19. Do you believe licensing arrangements would help control the distribution of music over the Internet?

Music licensing is going to become big in the industry.

20. Do you believe subscription models such as "pay per play" help to control the distribution of music over the Internet?

It is but one of many alternatives.

21. From your perspective how effective has litigation through court cases been to control the distribution of music over the Internet?

It has been very successful but I think some decisions overseas have been ridiculous also.

22. Are there other alternatives to control and monitor the distribution of music on the Internet? If so, what do you believe they are?

DRM technologies, policing, litigation and enforcement will be the best way forward to control it.

23. Who do you believe is the main benefactor of the recent technological changes in music industry? i.e. Internet service providers, Consumers, Artists, Recording labels.

I don't think there is one. The Artists and music industry lose every day and eventually P2P and consumers who use them will in the near future become the losers in the end.

24. Do you believe that in the current environment, a new/emerging artist can develop and prosper in the music industry without signing a recording contract?

Not sure. Probably not.

25. Do you believe that digital music technology has reached its limit? If so, why?

No because new technologies emerge or they manufacture technologies to get around the laws.

26. Do you believe that another technology will emerge to replace digital music technology?

Probably.

27. Do you believe the consequences for illegally distributing copyrighted music on the Internet are adequate?

Cannot comment at this stage. But we are pushing the courts to enforce the criminal provisions as a deterrent.

28. Do you believe the law currently plays an important role in controlling digital music distribution on the Internet? If so, how?

Yes and will continue to do so in the future.

29. In your opinion will the use of digital music technology continue to grow?

Not sure. I hope not.

BIBLIOGRAPHY

BOOKS

- Anderson, C., *The Long Tail: Why the Future of Business Is Selling Less of More,* New York, Hyperion Books, 2006
- Barrow, T., and Newby, J., *Inside the Music Business*, London, Routledge, 1996.
- Fisher, W., *Promises to Keep: Technology, Law, and the Future of Entertainment*, Stanford University Press, 2004.
- Frith, S., *Music and Copyright*, 2nd Edition, Edinburgh University Press, 2004.
- Hull, G., *The Recording Industry*, USA, Routledge, 2004.
- Lessig, L., *Free Culture*, Penguin Books, New York, 2003.
- McKeough, J., and Stewart, A., *Intellectual Property in Australia*, 2nd Edition, Sydney, Butterworths, 1997.
- Passman, D., *All You Need to Know About the Music Business*, New York, Free Press, 2003
- Ricketson, S., and Cresswell, C., *The Law of Intellectual Property: Copyright, Designs & Confidential Information*, 2nd Edition revised, Law Book Company, Sydney, 2002.
- Ricketson, S., and Richardson, M., *Intellectual Property Cases, Materials and Commentary*, 3rd Edition, Australia: Lexis Nexis Butterworths, 2005.
- Shuker, R., *Popular Music: The Key Concepts*, Routledge, 2001.
- Simpson, S., *Music Business*, 3rd Edition, NSW, Omnibus Press, 2006.
- Swiss, T., *Key Concepts for Popular Music and Culture: New Essays*, London, Basil Blackwell Publishers, 1999.
- Towse, R., *A Handbook of Cultural Economics*, Cheltenham, Edward Elgar Publishing, 2004
- Towse, R., *Copyright in the Cultural Industries*, Cheltenham, Edward Elgar Publishing, 2002.
- Rosenblatt, B., Trippe, B., and Mooney, S., *Digital Rights Management, Business and Technology,* New York, M&T Books, 2002.
- Vogel, H., *Entertainment Industry Economics: A Guide for Financial Analysis*, 6th Edition, Cambridge University Press, 2004.

- Yin, R., *Case study research: Design and methods,* 3rd Edition, Vol. 5, USA, Sage Publications, 2003.

ARTICLES

- ABC News Online, *"Court battle looms over Kazaa",* ABC News Online, 27 November 2004, located at http://www.abc.net.au/news/newsitems/200411/s1252954.htm (accessed on 30 November 2008).

- About.com, *"Napster To Go – Review of the Napster To Go Subscription Service"*, About.com, 2006, located at http://mp3.about.com/od/wheretobuymusic/fr/napstertogo.htm (accessed on 17 September 2006).

- About.com, *"The History of Sound Recording Technology"*, About.com, http://inventors.about.com/gi/dynamic/offsite.htm?site=http://www.recording%2Dhistory.org/ (accessed on 9 January 2008).

- Ackman, D., *"Eminem Goes the Extra 8 Mile"*, Forbes.com, 11 November 2002, located at http://www.forbes.com/2002/11/11/cx_da_1111topnews.html (accessed on 8 November 2008).

- Acohido, B., *"Radio to the MP3 degree: Podcasting"*, USATODAY.com, 9 February 2005 located at http://www.usatoday.com/money/media/2005-02-09-podcasting-usat-money-cover_x.htm (accessed on 24 May 2008).

- Adams, A., *"Introduction: Valid Protection or Abusive Control?"*, International Review of Law Computers and Technology, Vol. 20, No. 3, November 2006.

- Aitken, B., *"Download, Stream, or somewhere in between: The Potential for Legal Music use in Podcasting"*, Duke Law & Technology Review, No. 12, 2006, located at https://www.law.duke.edu/journals/dltr/articles/pdf/2006DLTR0012.pdf (accessed on 5 August 2008).

- Albright, J., *"The next step in stopping swapping: copyproof CD's"*, The National Law Journal, 22 October 2001.

- Alfano, K., *"Copyright in Exile: Restoring the Original Parameters of Exclusive Reproduction"*, 11 J. Tech. L. & Pol'y 215, 2006.

- Allen, A., *"Battling in the Name of Balance: Evaluating Solutions to Copyright Conflict in Viacom International v. Youtube"*, BYU L. Rev. 1023, 2007.

- Anestopoulou, M., *"Challenging Intellectual Property Law in the Internet: An Overview of the Legal Implications of the MP3 Technology"*, Information and Communications Technology Law, Vol. 10, No. 3, 2001.

- Aranda, A., *"Inducing a Remedy or Courting a Solution? A Comparative Institutional Analysis of the P2P Dilemma"*, St. Louis U. L.J. 851, 2005-2006.

- Armstrong, T., *"Digital Rights Management and the Process of Fair Use"*, Harvard Journal of Law and Technology, Vol. 20, Number 1, Fall 2006.

- Aughton, S., *"Japanese record labels win landmark P2P settlement"*, PC Pro, 4 April 2005, located at http://www.pcpro.co.uk/news/71117/japanese-record-labels-win-landmark-p2p-settlement.html (accessed on 15 October 2005).

- Aune, S., *"The Demise of BitTorrent: 7 Trackers That Fought the Law in 07"*, Mashable.com, 13 January 2008, located at http://mashable.com/2008/01/13/the-demise-of-bittorrent-7-trackers-that-fought-the-law-in-07/ (accessed on 7 June 2008).

- Bagley, A., and Brown, J., *"The Broadcast Flag: Compatible with Copyright Law & Incompatible with Digital Media Consumers"*, 47 IDEA 607, 2006-2007.

- Balaban, D., *"The Battle of the Music Industry: The Distribution of Audio and Video Works via the Internet, Music and More"*, 12 Fordham Intellectual Property, Media & Entertainment Law Journal 235, Fall 2001.

- Barthel, T., *"RIAA v. Diamond Multimedia Systems, Inc.: The Sale of the Rio Player Forces the Music Industry to Dance to a New Beat"*, 9 Journal of Art and Entertainment Law 279, Spring 1999.

- Bartlett, B., *"Minidisc Beginners Guide"*, tape.com, located at http://www.tape.com/techinfo/minidisc.html (accessed on 5 February 2008).

- Bartoszek, P., *"Deemed Distribution: How Talking About Music Can Violate Copyright Law"*, J.L. Tech. & Pol'y 439, 2008.

- Bayer, J., *"Liability of Internet Service Providers for Third Party Content"*, 1 Victoria U. Wellington Working Paper Series 1, 2008.

- BBC News, *"Blow to online music piracy fight"*, BBC News, 19 December 2003, located at http://news.bbc.co.uk/go/pr/fr/-/1/hi/technology/3335063.stm (accessed on 3 March 2008).

- BBC News, *"Coke music site finally launches"*, BBC News, 20 January 2004, located at http://news.bbc.co.uk/go/pr/fr/-/1/hi/entertainment/music/3412379.stm, (accessed on 1 April 2008).

- BBC News, *"MTV prepares music download rival"*, BBC News, 4 November 2003, located at http://news.bbc.co.uk/go/pr/fr/-/1/hi/entertainment/music/3240971.stm, (accessed on 22 December 2008).

- BBC News, *"Music Industry sues file-sharers"*, BBC News, 21 January 2004, located at http://news.bbc.co.uk/go/pr/fr/-/2/hi/entertainment/3418057.stm (accessed on 2 March 2008).

- BBC News, *"Strong debut for iTunes for PC's"*, BBC News, 20 October 2003, located at http://news.bbc.co.uk/go/pr/fr/-/1/hi/technology/3207984.stm, (accessed on 27 October 2008).

- BBC News, *"The Robbie Williams Phenomenon"*, BBC News, 13 January 2003, located at http://news.bbc.co.uk/2/hi/entertainment/1894211.stm (accessed on 28 August 2008).

- BBC News, *"Wal-Mart moves into online music"*, BBC News, 19 December 2003, located at http://news.bbc.co.uk/go/pr/fr/-/1/hi/entertainment/music/3333551.stm (accessed on 7 January 2008).

- BBC News, *"Web music piracy fight 'working'"*, BBC News, 22 January 2004, located at http://news.bbc.co.uk/go/pr/fr/-/2/hi/entertainment/3419735.stm (accessed on 5 February 2008).

- Beckman, S., *"From CD to MP3: Compression in the New Age of Technology Overlooked Infringement of Fair Use"*, Gonzaga Law Review**,** Vol. 42, No. 3, 2007.

- Beets, R., *"RIAA v Napster: The struggle to protect copyrights in the Internet Age"*, 18 Georgia State University Law Review 507, Winter 2001.

- Belknap, J., *"Copyright Law and Napster"*, 5 The Journal of Small and Emerging Business Law 183, Spring 2001.

- Bellis, M., *"Emile Berliner – The History of the Gramophone"*, About.com, located at http://inventors.about.com/od/gstartinventions/a/gramophone.htm (accessed on 1 October 2008).

- Bellis, M., *"History of MP3"*, inventors.about.com, located at http://inventors.about.com/od/mstartinventions/a/MPThree.htm (accessed on 10 July 2008).

- Bellis, M., *"The History of the Transistor - John Bardeen, Walter Brattain, and William Shockley"*, About.com, located at http://inventors.about.com/library/weekly/aa061698.htm (accessed on 8 February 2008).

- Bernhoff, J., *"Commentary: Getting on the same sheet of music, Forrester Research"*, News.com., 2004, located at www.news.com.com/Commentary:+Getting+on+the+same+sheet+of+music/2030-1069_3-5283947.html?tag=st.rn (accessed on 16 August 2008).

- Best, J., *"Illegal file-sharing three times as popular as iTunes"*, Silicon.com, 30 November 2005, located at http://www.zdnet.com.au/news/software/soa/Illegal-file-sharing-three-times-as-popular-as-iTunes/0,130061733,139224996,00.htm (accessed on 13 December 2008).

- Bielinski, L., *"Post-Grokster Contributory Copyright Liability and Potential P2P Entitlement to the DMCA ISP Safe Harbors"*, 6 Va. Sports & Ent. L.J. 209, 2006-2007.

- Birchall, S., *"Copyright Crack Down – The Implications for Australian Internet Service Providers under a Free Trade Agreement between Australia and the United States"*, Computers & Law, Vol. 52, 2003.

- Bishop, A., *"Illegal P2P File Sharing on College Campuses - What's the Solution"*, 10 Vand. J. Ent. & Tech. L. 515, 2007-2008.

- Black, K., *"S3 Buys MP3 Car Player Maker Empeg - Stay Tuned"*, Internetnews.com, 7 November 2000, located at http://www.internetnews.com/bus-news/article.php/505441, (accessed on 22 March 2008).

- Blackowicz, J., *"RIAA v. Napster: Defining Copyright for the Twenty-First Century?"*, 7 Boston University Journal of Science and Technology Law 182, Winter 2001.

- Bockstedt, J., Kauffman, R., and Riggins, F., *"The Move to Artist led Online Music distribution: A Theory-Based Assessment and Prospects for Structural Changes in the Digital Music Market"*, International Journal Of Electronic Commerce, Vol. 10, Issue 3, Spring 2006.

- Boehlert, E., *"In (defense) of Napster Collusion"*, Salon.com, 2 November 2000, located at http://archive.salon.com/business/feature/2000/11/02/collusion/print.html (accessed on 6 November 2008).

- Boehm, J., *"Copyright Reform for the Digital Era: Protecting the Future of Recorded Music through Compulsory Licensing and Proper Judicial Analysis"*, 10 Tex. Rev. Ent. & Sports L. 169, 2008-2009.

- Boeve, M., *"Will Internet Service Providers be Forced to Turn in their Copyright Infringing Customers - The Power of the Digital Millennium Copyright Act's Subpoena Provision after In Re Charter Communications"*, 29 Hamline L. Rev. 115, 2006.

- Bollen, R., *"Copyright in the Digital Domain"*, Murdoch University Electronic Journal of Law, Vol. 8, No 2., June 2001, located at http://www.murdoch.edu.au/elaw/issues/v8n2/bollen82_text.html#Communication_T (accessed on 27 June 2008).

- Bonsor, K., Tyson, J., and Freudenrich, C., *"How MP3 Players Work"*, Howstuffworks.com, located at http://electronics.howstuffworks.com/mp3-player1.htm (accessed on 9 August 2008).

- Borland, J. and Hu, J., *"Web rights deal will let the music play"*, ZDNet, 18 September 2001, located at, http://www.zdnet.com.au/web-rights-deal-will-let-the-music-play-120260517.htm (accessed on 12 January 2008).

- Borland, J., *"Audiogalaxy in RIAA crosshairs"*, CNET News.com, 24 May 2002, located at http://news.com.com/2100-1023-922729.html (accessed on 25 August 2008).

- Borland, J., *"Copy-protected CDs quietly slip into stores"*, CNET News.com, 18 July 2001, located at http://news.cnet.com/news/0-1005-200-6604222.html (accessed on 7 October 2008).

- Borland, J., *"Free vs. fee: Underground still thrives"*, CNET News.com, 30 May 2003, located at http://news.com.com/2009-1027_3-1009541.html?part=dtx&tag=ntop, (accessed on 28 September 2008).

- Borland, J., *"Is copy protection dead on arrival?"*, CNET News.com, 7 August 2001, located at http://news.cnet.com/news/0-1005-200-6774448.html?tag=rltdnws, (accessed on 3 November 2008).

- Borland, J., *"Judge lets Napster live despite injunction"*, CNET News.com, 6 March 2001, located at http://news.cnet.com/news/0-1005-200-5039135.html?tag=rtldnws (accessed on 30 March 2008).

- Borland, J., *"Judge: File sharing legal in Canada"*, CNET News.com, 31 March 2004, located at http://news.com.com/Judge+File+sharing+legal+in+Canada/2100-1027_3-5182641.html (accessed on 16 April 2008).

- Borland, J., *"Judge: File-swapping tools are legal"*, CNET News.com, 25 April 2003 located at http://news.com.com/Judge+File-swapping+tools+are+legal/2100-1027_3-998363.html (accessed on 1 June 2008).

- Borland, J., *"Judge: Napster filtering efforts disgraceful"*, CNET News.com, 10 April 2001, located at http://news.cnet.com/news/0-1005-200-5567384.html (accessed on 14 May 2008).

- Borland, J., *"RIAA embarks on new round of piracy suits"*, CNET News.com, 21 January 2004, located at http://news.com.com/2100-1027-5144558.html?part=dtx&tag=ntop (accessed on 26 January 2008).

- Borland, J., *"RIAA files 80 new file-swapping suits"*, CNET News.com, 31 October 2003, located at http://news.cnet.com/2100-1027_3-5099738.html, (accessed on 10 November 2008).

- Borland, J., *"RIAA lawsuits yield mixed results"*, CNET News.com, 4 December 2003, located at http://news.com.com/2100-1027-5113188.html?part=dtx&tag=ntop (accessed on 11 December 2008).

- Borland, J., *"RIAA sues Aimster over file swapping"*, CNET News.Com, 25 May 2001, located at http://news.com.com/2100-1023-258259.html?legacy=cnet (accessed on 15 June 2008).

- Borland, J., *"RIAA sues iMesh file-trading firm"*, CNET News.com, 19 September 2003 located at http://news.com.com/2100-1025_3-5079454.html (accessed on 29 September 2008).

- Borland, J., *"US Supreme Court rules against file Swapping"*, CNET News.com, 28 June 2005, located at http://news.cnet.com/Supreme-Court-rules-against-file-swapping/2100-1030_3-5764135.html (accessed on 31 July 2008).

- Boulton, C., *"MPAA, RIAA Sue File-sharers"*, Siliconvalley.internet.com, 3 October 2001, located at http://siliconvalley.internet.com/news/article.php/897061 (accessed on 23 September 2008).

- Bowman, L., *"Study: Napster boosts CD Sales"*, ZDNet News, 20 July 2000, located at http://news.zdnet.com/2100-9595_22-522383.html?legacy=zdnn (accessed on 4 August 2005).

- Boyd-Farrell, R., *"Legal Analysis of the Implications of MGM v. Grokster for BitTorrent"*, 11 Intell. Prop. L. Bull. 77, 2006-2007.

- Brain, M., *"How Napster Works"*, howstuffworks.com, 2006, located at http://www.howstuffworks.com/napster.htm (accessed on 12 December 2008).

- Brightman, J., *"PC Game Sales Brings US Industry to $18.85 Billion in '07"*, GameDaily, 24 January 2008, located at http://www.gamedaily.com/articles/news/pc-game-sales-bring-us-industry-to-1885-billion-in-07/ (accessed on 17 March 2008).

- Brinkley, J., *"On New DVD Formats, the Sound of Good Things to Come"*, New York Times, 9 December 1999, located at http://www.nytimes.com/library/tech/99/12/circuits/articles/09down.html (accessed on 30 July 2008).

- Brothers, P., and Layton, J., *"How MySpace Works"*, HowStuffWorks, located at http://computer.howstuffworks.com/myspace3.htm (accessed on 8 August 2008).

- Broucek, V., Frings, S., and Turner, P., *"The Federal Court, the Music Industry and the Universities: Lessons for Forensic Computing Specialists"*, School of Information Systems University of Tasmania, 2003, located at http://scissec.scis.ecu.edu.au/conference_proceedings/2003/forensics/pdf/20_final.pdf (accessed on 4 December 2008).

- Brown, J., *"The jukebox Manifesto"*, Salon.com, 13 November 2000, located at http://archive.salon.com/tech/feature/2000/11/13/jukebox/index1.html (accessed on 6 February 2008).

- Brown, K., *"If You Can't Fight 'Em, Join 'Em - Industry Trend or Event"*, Cable World, 21 February 2000, located at http://www.findarticles.com/p/articles/mi_m0DIZ/is_8_12/ai_60058707 (accessed on 16 September 2008).

- Buhse, W., *"The Role of Digital Rights Management as a Solution for Market Uncertainties for Mobile Music"*, The International Journal of Media Management, Vol. 4, No. 3, 2002.

- Burrows, P., and Grover, R., *"Universal Music Takes on iTunes"*, Business Week, 22 October 2007, located at http://www.businessweek.com/magazine/content/07_43/b4055048.htm (accessed on 30 November 2007).

- Butler, S., *"Music industry, Sharman face off in Australia"*, CNET News.com, 9 December, 2004, located at http://www.cnet.com.au/mp3players/musicsoftware/0,39029154,40002881,00.htm (accessed on 26 December 2008).

- Cardi, W., *"Uber-Middleman: Reshaping the Broken Landscape of Music Copyright"*, 92 Iowa L. Rev. 835, 2006-2007.

- Carrier, M., *"Cabining Intellectual Property through a Property Paradigm"*, 54 Duke L.J. 1, 2004-2005.

- Cashmere, P., *"Warner Music Buys Festival Mushroom"*, Undercover Media Pty Ltd, 20 October 2005, located at http://www.undercover.com.au/news/2005/oct05/20051020_fmr.html (accessed on 7 November 2005).

- Castle, C., And Mitchell, A., *"What's Wrong with ISP Music Licensing"*, Entertainment and Sports Lawyer, Vol. 26, No. 3, 2008-2009.

- Chan, A., *"The Chronicles of Grokster: Who is the Biggest Threat in the P2P Battle"*, 15 UCLA Ent. L. Rev. 291, 2008.

- Chapman, S., *"Pushing the Limits of Copyright Law and Upping the Ante in the Digital World: The Strange Case of A&M Records, Inc. v. Napster, Inc."*, 89 Kentucky Law Journal 793, 2000/2001.

- Charbonneau, J., *"Protecting the Messenger: Carriage Service Providers' Liability for Third Party Copyright Infringement"*, 13 ELaw J. 37, 2006.

- China Daily, *"Digital piracy rife in cyber world"*, China Daily, 4 April 2005, located at http://www.chinadaily.com.cn/english/doc/2005-04/04/content_430628.htm (accessed on 17 April 2008).

- Chinaview.com, *"Baidu loses first round of copyright dispute"*, Chinaview.com, 20 September 2005, located at http://news.xinhuanet.com/english/2005-09/20/content_3515251.htm (accessed on 24 September 2008).

- Ciolli, A., *"Lowering the Stakes: Toward a Model of Effective Copyright Dispute Resolution"*, 110 W. Va. L. Rev. 999, 2007-2008.

- Clark, D., *"Digital Millenium Copyright Act: Can it take down Internet Infringers?"*, 6 Comp L. Rev. & Tech J. 193, 2002.

- Clarke, D., and Peers, M., *"Record Companies, Artists Oppose New Service for Tunes on the Web"*, Wall Street Journal, 1 March 2000, located at http://www.boondogs.com/press/wsj/index.html (accessed on 22 June 2005).

- Clarke, I., Sandbert, O., Wiley, B., and Hong, T., *"Freenet: A distributed anonymous information storage and retrieval system"*, ICSI Workshop on Design Issues in Anonymity and Unobservability, Springer-Verlag, LNCS 2009, 2001.

- Clarke, R., *"The Economic and Cultural Impacts of the Free Trade Agreement Provisions relating to Copyright and Patent Law"*, Australian National University, Canberra, 2004, located at http://www.anu.edu.au/people/Roger.Clarke/II/FTA17.html (accessed on 3 March 2005).

- CNET news, *"BitTorrent: Swiftel staff to face the music"*, CNET.com.au, 27 June 2005, located at http://www.cnet.com.au/software/internet/0,39029524,40055566,00.htm (accessed on 23 August 2008).

- CNN Money, *"Napster, BMG in Music Pact"*, CNN Money, 31 October 2000, located at http://money.cnn.com/2000/10/31/bizbuzz/napster/ (accessed on 12 June 2008).

- Cohen, J., *"Creativity and Culture in Copyright Theory"*, 40 UC Davis L. Rev. 1151, 2007.

- Cohen, J., *"Pervasively Distributed Copyright Enforcement"*, 95 Geo. L.J. 1, 2006-2007.

- Cook, P., *"New Media in Cyberspace 2000"*, Musicdish.com, 6 July 2000, located at http://www.musicdish.com/mag/index.php3?id=1169 (accessed on 8 July 2008).

- Cox, B., *"Superdistribution"*, Wired.com, 2 September 1994, located at http://www.wired.com/wired/archive/2.09/superdis.html (accessed on 20 December 2008).

- Craft, K., *"The Webcasting Music Revolution is ready to begin, as soon as we figure out the Copyright Law: The Story of the Music Industry at war with itself"*, 24 Hastings Communications and Entertainment Law Journal 1, Fall 2001.

- Creed, A., *"Record Label Threatens Australian Web Site Over Song"*, Newsbytes, 25 August 2000 located at http://www.newsbytes.com/pubNews/00/154197.html (accessed on 3 October 2005).

- Cummings, J., *"Wal-Mart's music download service goes live"*, Publish, 31 March 2004, located at http://www.publish.com/c/a/Web-Design/WalMarts-music-download-service-goes-live/ (accessed on 24 May 2008).

- Dahl, E., *"Microsoft Windows Media Player"*, PC World, 31 July 2007, located at http://www.pcworld.com/downloads/file/fid,22326-order,1-page,1-c,audiotools/description.html (accessed on 13 March 2008).

- Davidson, C., *"Boxed Lynch: 'Boxing Helena' news – Jennifer Lynch tells us about her new film and casting Madonna in the lead role"*, Entertainment Weekly, 7 December 1990, located at http://www.ew.com/ew/article/0,,318779,00.html (accessed on 8 November 2008).

- Dearne, K., *"Copy-proof CD is 'Self-destructive': ACA"*, The Australian, 19 November 2002.

- Dearne, K., *"Singer sparks fury by backing downloads"*, The Australian, 28 November, 2002.

- Delio, M., *"Napster Slowing Down Labels"*, Wired.com, 25 July 2000 located at http://www.wired.com/news/culture/0,1284,37614,00.html (accessed on 27 July 2008).

- Depoorter, B., *"Technology and Uncertainty: The Shaping Effect on Copyright Law"*, 157 U. Pa. L. Rev. 1831, 2008-2009.

- Depoorter, B., and Vanneste, S., *"Norms and Enforcement: The Case Against Copyright Litigation"*, Oregon Law Review, Vol. 84, No. 4, 2005.

- Dessent, B., *"Brian's BitTorrent FAQ and Guide"*, Dessent.net, May 2003, located at http://www.dessent.net/btfaq/#what (accessed on 7 December 2008).

- Dickman, J., *"Anonymity and the Demands of Civil Procedure in Music Downloading Lawsuits"*, Tulane Law Review, Vol. 82, No. 3, 2008.

- Dimock R., and Punniyamoorthy, S., *"Digital Technology: It's Impact on Copyright Law and Practice in North America"*, Journal of Intellectual Property Law & Practice, Vol. 1, Issue 13, 2006.

- Dogan, S., *"Is Napster a VCR? The implications of Sony for Napster and Other Internet Technologies"*, 52 Hastings Law Journal 939, April 2001.

- Donovan, P., *"Delta Makes History"*, The Age, 2 December 2003, located at http://www.theage.com.au/articles/2003/12/01/1070127349539.html (accessed on 24 August 2008).

- Douglas, G., *"Copyright and Peer-to-Peer Music File Sharing: The Napster Case and the Argument Against Legislative Reform"*, ELAW, Murdoch University Electronic Journal of Law, Vol. 11, No. 1, March 2004, located at http://www.murdoch.edu.au/elaw/issues/v11n1/douglas111.html (accessed on 16 June 2008).

- Duchene, A., and Waelbroeck, P., *"Legal and Technological Battle in Music Industry: Information-Push vs. Information-Pull Technologies"*, Sauder School of Business Working Paper, April 2004.

- Economist.com, *"The Music Industry: Music's Brighter Future"*, Economist.com, 28 October, 2004, located at http://www.economist.com/business/displayStory.cfm?story_id=3329169 (accessed on 11 January 2008).

- Einhorn, M., *"Copyright Prevention, and Rational Governance: File-sharing and Napster"*, 24 Columbia – VLA Journal of Law & the Arts 449, Summer 2001.

- Eliezer, C., *"Beat goes on for Napster"*, BRW, 17 November, 2000.

- Eliezer, C., *"Warner Music Buys Aussie Indie FMR"*, Billboardbiz, 20 October 2005, located at http://www.allbusiness.com/retail-trade/miscellaneous-retail-retail-stores-not/4381323-1.html (accessed on 17 November 2008).

- Elliott, C., *"Napster and DeCSS"*, New Zealand Law Journal, September 2001.

- Elliott, C., *"The Napster Saga"*, New Zealand Law Journal, August 2001.

- Escher, J., *"Copyright, Technology & The Boston Strangler: The Seventh Circuit and the Future of Online Music Access"*, Seventh Circuit Rev., Vol. 1, Issue 1, Spring 2006.

- Evers, J., *"Dutch Supreme Court rules Kazaa is legal"*, Infoworld, 19 December, 2003, located at http://www.infoworld.com/article/03/12/19/HNcourtkazaa_1.html (accessed on 13 January 2008).

- Expatica, *"Music Industry launches illegal downloading blitz"*, Expatica, 9 June 2004, located at http://www.expatica.com/source/site_article.asp?subchannel_id=52&story_id=8327 (accessed on 28 July 2005).

- Faulhaber, G., *"File Sharing, Copyright, and the Optimal Production of Music"*, 13 Mich. Telecomm. & Tech. L. Rev. 77, 2006-2007.

- Feltham, C., *"A New Tune for EMI?: Guy Hands' Terra Firma is buying the ailing music giant, but can he let the good times roll again"*, The Independent, 19 July 2007, located at http://www.independent.co.uk/news/business/analysis-and-features/a-new-tune-for-emi-457847.html (accessed on 15 September 2008).

- Felton, E, *"Don't use Sony's web based XCP Uninstaller"*, Freedom to Tinker Blog, 14 November 2005, located at http://www.freedom-to-tinker.com/?p=926 (accessed on 23 February 2008).

- Festa, P., *"Court: Anonymous P2P no defense"*, CNET News.com, 30 June 2003, located at http://news.zdnet.com/2100-1009_22-1022462.html (accessed on 8 July 2005).

- Fisher, W., *"Theories of intellectual property"*, Harvard Cyberlaw, 2000, located at http://cyber.law.harvard.edu/people/tfisher/iptheory.pdf (accessed on 10 January 2008).

- Fitzgerald, B., *"The Australian Sony Playstation Case: How Far will Anti-circumvention Law Reach in the Name of DRM?"*, QUT Law School, 2005, located at http://www.law.qut.edu.au/files/The_Australian_Sony_Playstation_Case.pdf (accessed on 31 December 2008).

- Fogarty, P., *"Major Record Labels and the RIAA: Dinosaurs in a Digital Age"*, 9 Hous. Bus. & Tax L.J. 140, 2008-2009.

- Fox, M., and Ciro, T., *"The Emerging Legal Environment for Podcasting"*, Entertainment Law Review, Issue 8, 2005.

- Frere-Jones, S., *"Idolatry: Everybody's a Critic"*, The New Yorker, 19 May 2008, located at http://www.newyorker.com/arts/critics/musical/2008/05/19/080519crmu_music_frerejones?currentPage=1 (accessed on 7 July 2008).

- Freudenrich, C., and Carmack, C., *"How PDA's work"*, howstuffworks.com, located at http://electronics.howstuffworks.com/pda1.htm (accessed on 9 October 2008).

- Freedman, D., *"Managing Pirate Culture: Corporate responses to peer-to-peer networking"*, International Journal on Media Management, Vol. 5, No. 3, 2003, located at http://tinyurl.com/2t5u3 (accessed on 23 April 2005).

- Frey, A., *"To Sue or not to Sue: Video-Sharing Web Sites, Copyright Infringement, and the Inevitability of Corporate Control"*, 2 Brook. J. Corp. Fin. & Com. L. 167, 2007-2008.

- Fried, I., *"Virgin: Apple's not playing fair with iPod"*, CNET news.com, 2004, located at http://www.news.com.com/2100-1027-5298642.html (accessed on 29 November 2008).

- Frith, D., *"Jobs' online music store"*, The Australian, 6 May, 2003.

- Gallagher, W., *"Duets"*, BBC News, 31 October 2000, located at http://news.bbc.co.uk/2/hi/entertainment/992842.stm (accessed on 8 November 2008).

- Galliway, T., and Kinnear, D., *"Free Ride: an institutionalist analysis of information in the Internet age"*, Journal of Economic issues, Vol. 36, Issue 2, June 2002.

- Gamet, J., *"Analyst: Apple iPhone Sales to double in 2009"*, The Mac Observer, 18 June 2008, located at http://www.macobserver.com/stockwatch/2008/06/18.1.shtml (accessed on 13 August 2008).

- Ganley, Paul, *"Surviving Grokster: Innovation and the Future of Peer-To-Peer"*, European Intellectual Property Review, Vol. 28, No. 15, 2006.

- Garlick, M and Nicholls, R., *"Proxy Caching – The New Fair Dealing?"*, Telemedia, Vol. 3, Issue 2, 1999.

- Garon, J., *"What if DRM Fails?: Seeking Patronage in the IWasteland and the Vitual O"*, 2008 Mich. St. L. Rev. 103, 2008.

- Garrity, B., *"Commercial interest in digital distribution"*, Billboard, Vol. 114, Issue 28, 13 July 2002.

- Garrity, B., *"For-pay P2P models emerge"*, Billboard, Vol. 114, Issue 22, 1 June 2002.

- Garsek, Z., *"Napster Through the Scope of Property and Personhood: Leaving Artists Incomplete People"*, 19 Cardozo Arts & Entertainment Law Journal 205, 2001.

- Geist, M., *"Legal Fallout from Sony's CD woes"*, BBC News, located at http://news.bbc.co.uk/2/hi/technology/4577536.stm, 3 January 2006 (accessed on 23 March 2008).

- Gethin, S., *"Technological protection measures in the Australia-US FTA"*, Intellectual Property Law Bulletin, Vol. 17, No. 3, 2004.

- Ghosemajumder, S., *"RIAA lawsuits may destroy the music industry"*, Media, Entertainment and Technology, 25 June 2003, located at http://shumans.com/articles/000028.php (accessed on 30 June 2008).

- Ghosh, S., *"MP3 v. the Law: How the Internet Could (But Won't) Become Your Personal Jukebox"*, gigalaw.com, July 2000, located at http://www.gigalaw.com/articles/2000-all/ghosh-2000-07-all.html (accessed on 2 January 2005).

- Giblin, R., *"A Bit Liable? A Guide to Navigating the US Secondary Liability Patchwork"*, Santa Clara Computer & High Tech, L.J., Vol. 25, 2008.

- Giblin, R., *"On Sony, Streamcast and Smoking Guns"*, European Intellectual Property Review, Vol. 29, No. 6, 2007.

- Giblin, R., and Davison, M., *"KaZaA Goes the way of Grokster? Authorisation of Copyright Infringement Via Peer To-Peer Networks in Australia"*, Australian Intellectual Property Journal, Vol. 17, No. 1, 2006.

- Gibson, B., *"Apple: Shuffle Grabs 58 Percent of Flash Player Market"*, Mac News World, 4 May 2005, located at http://www.macnewsworld.com/story/42856.html (accessed on 6 May 2005).

- Gilbert, A., *"Publishers sue Google over Book Search Project"*, CNET news.com, 19 October 2005, located at http://news.cnet.com/Publishers-sue-Google-over-book-search-project/2100-1030_3-5902115.html?hhTest=1 (accessed on 25 October 2008).

- Gilmore, H and Armstrong, K., *"War on music piracy"*, The Sydney Morning Herald, 17 February 2008, located at http://www.smh.com.au/news/technology/war-on-music-piracy/2008/02/16/1202760662778.html (accessed on 4 April 2008).

- Ginsberg, J., *"Copyright and Control over New Technologies of Dissemination"*, 101 Columbia Law Review 1613, November 2001.

- Ginsburg, J., *"Separating the Sony Sheep from the Grokster Goats: Reckoning the Future Business Plans of Copyright-Dependent Technology Entrepreneurs"*, 50 Ariz. L. Rev. 577, 2008.

- Giuffre, M., *"What are the Different Types of MP3 Players?"*, Wisegeek, 2005, located at http://www.wisegeek.com/what-are-the-different-types-of-mp3-players.htm (accessed on 8 December 2008).

- Gizmodo Blog, *"Rumour: Apple jumping into the Cloud soon with Streaming Media and Wireless Syncing"*, gizmodo.com, http://gizmodo.com/5577475/rumor-apple-jumping-into-the-cloud-soon-with-streaming-media-and-wireless-syncing (last visited 31 December 2008).

- Glasebrook, S., *"'Sharing's Only Fun When It's Not Your Stuff': Napster.com Pushes the Envelope of Indirect Copyright Infringement"*, 69 University of Missouri at Kansas City Law Review 811, Summer 2001.

- Gold Coast Bulletin Newspaper, *"Zunes, Microsoft plays Apple's tune"*, Weekend Gold Coast Bulletin, September 16-17, 2006.

- Gonsalves, M., and Nagy, C., *"High Court Decides against Sony – but no green light for mod-chip suppliers"*, Malleson Stephen Jacques Alert, 7 October 2005, located at http://www.mallesons.com/publications/alerts/2005/8129813w.htm (accessed on 21 December 2008).

- Gordon, W., *"Fair Use as Market Failure: A Structural and Economic Analysis of the Betamax Case and its Predecessors"*, 82 Colum. L. Rev. 1600, 1982.

- Gosse, E., *"Recording Industry Association of America v Diamond Multimedia Systems, Inc.: The RIAA Could Not Stop the Rio – MP3 Files and The Audio Home Recording Act"*, 34 USFL Law Review 575, 2000.

- Gowan, M., *"How MP3 Works"*, CNN.com. 3 February 2000, located at http://archives.cnn.com/2000/TECH/computing/02/03/mp3.works.idg/index.html (accessed on 4 July 2008).

- Graham, J., *"Students paying for playing"*, USATODAY.com, 4 May 2005, located at http://www.usatoday.com/tech/news/2003-05-04-students_x.htm (accessed on 3 June 2008).

- Greene, S., *"Reconciling Napster with the Sony decision and recent amendments to the law"*, American Business Journal, Vol. 39, Issue 1, Fall 2001.

- Green, T., *"Music Super-Distribution to Go Live"*, Mobile Entertainment, 2 September 2008, located at http://www.mobile-ent.biz/news/31326/music-super-distribution-service-to-go-live (accessed On 20 September 2008).

- Greene, T., *"MPAA, RIAA sue Scour over copyrights"*, The Register, 24 July 2000, located at http://www.theregister.co.uk/2000/07/24/mpaa_riaa_sue_scour_over/ (accessed on 14 February 2008).

- Guevin, J., *"Music Streaming Service Spotify wins early fans"*, CNET News, 3 January 2009, located at http://news.cnet.com/8301-1023_3-10130632-93.html (accessed on 3 January 2009).

- Gunnlaugsson, O., *"DAT – Digital Audio Tape"*, Audiotools.com, 27 September 2005, located at http://audiotools.com/dat.html (accessed on 4 April 2008).

- Haftke, M., and Daniels, P., *"Napster in the UK"*, Entertainment Law Review, Vol. 4, Issue 8, 2001.

- Hagen, G., and Engfield, N., *"Canadian Copyright Reform: P2P Sharing, Making Available and the Three-Step Test"*, UOLTJ, Vol. 3, No. 2, 2006.

- Hakim, S., *"Copyright and the Liability of ISPs"*, Law Institute Journal, Vol. 73, Issue 9, 1999.

- Halderman, J. A. *"Evaluating New Copy-Prevention Techniques for Audio CDs"*, Washington, D.C., In Proceedings of the 2002 ACM Workshop on Digital Rights Management, 2002.

- Hall, H., *"The Day the Music Died: The Supreme Court's Reversal of MGM Studios, Inc. v. Grokster and its Impact on Secondary Liability for Copyright Infringement"*, 35 Journal of Law and Education 387, 2006.

- Hancock, G., *"Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd.: Inducing Infringement and Secondary Copyright Liability"*, 21 Berkeley Tech. L.J. 189, 2006.

- Harmon, A., *"Copyright and Copying Wrongs: A Web Rebalancing Act"*, The New York Times, 10 September 2000, located at http://www.nytimes.com/2000/09/10/weekinreview/10HARM.html (accessed on 12 September 2008).

- Harris, R., *"Whatever happened to SDMI?"*, Salon.com, 29 April 2002, located at http://archive.salon.com/tech/feature/2002/04/29/sdmi/print.html (accessed on 26 June 2008).

- Haskins, W., *"Ripples in the Music Industry, Part 2: The Sound of the Future"*, E-Commerce Times, 6 November 2007, located at http://www.technewsworld.com/story/60159.html (accessed on 4 February 2008).

- Hayes, S., *"Micropayments plan to pay for MP3 files"*, The Australian, 25 March, 2003.

- Hayes, S., *"Uni MP3 showdown begins"*, News.com.au, 10 April 2003, located at http://news.com.au/common/story_page/0,4057,6263463%5E15306,00.html (accessed on 9 May 2005).

- Hayward, J., *"Grokster Unplugged: It's Time to Legalize P2P File Sharing"*, Selected Works, 2007, located at http://works.bepress.com/cgi/viewcontent.cgi?article=1000&context=john_hayward (accessed on 27 November 2008).

- Hearn, L., *"Kazaa capitulates, settles piracy case"*, The Age, 28 July 2006, located at http://www.theage.com.au/news/digital-music/kazaa-capitulates-settles-piracy-case/2006/07/27/1153816326515.html (accessed on 30 July 2008).

- Hefflinger, M., *"Report: Global Music Sales Down Overall; Digital Sales Up",* Digital Media Wire, 6 July 2007, located at http://www.dmwmedia.com/news/2007/07/06/report-global-music-sales-down-overall-digital-sales-up (accessed on 27 September 2008).

- Helberger. N., Dufft, N., Van Gompel, S., Kerényi, K., Krings, B., Lambers, R., Orwat, C., and Riehm, U., *"Digital Rights Management and Consumer Acceptability"*, Indicare, December 2004, located at http://www.indicare.org/tiki-download_file.php?fileId=60 (accessed on 28 March 2008).

- Helton, M., *"Secondary Liability for Copyright Infringement: BitTorrent as a Vehicle for Establishing a New Copyright Definition for Staple Articles of Commerce"*, 40 Colum. J.L. & Soc. Probs. 1, 2006-2007.

- Henriquez, R., *"Facing the Music on the Internet: Identifying Divergent Strategies for Different Segments of the Music Industry in Approaching Digital Distribution"*, 7 UCLA Entertainment Law Review 57, Fall 1999.

- Hepler, D., *"Dropping Slugs in the Celestial Jukebox: Congressional Enabling of Digital Music Piracy Short-Changes Copyright Holders"*, 37 San Diego Law Review 1165, Fall 2000.

- Hermida, A., *"Online scramble for music downloads"*, BBC News, 19 January 2004, located at http://news.bbc.co.uk/go/pr/fr/-/1/hi/technology/3409089.stm (accessed on 20 June 2008).

- Hervey, S., *"Beyond Napster – The Future of the Digital Commons: The Future of Online Music: Labels and Artists"*, 15 The Transnational Lawyer 279, Spring 2002.

- Higgins, D., *"A Long Way to the Bottom"*, Sydney Morning Herald, 9 November 2005, located at http://www.smh.com.au/articles/2005/11/09/1131407684176.html (accessed on 10 September 2008).

- Hilden, J., *"File sharing goes before Supreme Court"*, CNN.com, 16 February 2005, located at http://www.cnn.com/2005/LAW/02/16/hilden.fileswap/, (accessed on 18 February 2008).

- Hill, R., *"Pirates of the 21st Century: The Threat and Promise of Digital Audio Technology on the Internet"*, 16 Santa Clara Computer and High Technology Law Journal 311, May 2000.

- Hines, M., *"File-sharing lawsuits go abroad"*, CNET News.com, 30 March 2004, located at http://news.com.com/File-sharing+lawsuits+go+abroad/2100-1027_3-5181872.html (accessed on 1 April 2008).

- Hogberg, S., *"The Search for Intent-Based Doctrines of Secondary Liability in Copyright Law"*, 106 Colum. L. Rev. 909, 2006.

- Holahan, C., *"Sony BMG Plan to Drop DRM"*, Business Week, 4 January 2008, located at http://www.businessweek.com/technology/content/jan2008/tc2008013_398775.htm (accessed on 8 January 2008).

- Hollands, M., *"Legal at Last"*, The Australian, 28 October, 2003.

- Holten, K., *"Universal Extends Music Market Share: Report"*, Reuters.com, 3 April 2008, located at http://www.reuters.com/article/industryNews/idUSL0375895920080405 (accessed on 21 June 2008).

- Holthusen, S., *"The Napster Decision: Implications for Copyright Law in the Digital Age"*, University of Queensland Law Journal, Vol. 21, Issue 2, Annual 2001.

- Horsfield-Bradbury, J., *"Making Available as Distribution: File-Sharing and the Copyright Act"*, 22 Harv. J. L. & Tech. 273, 2008-2009.

- Howe, W., *"A Brief History of the Internet"*, Walthowe.com, 2004, located at http://www.walthowe.com/navnet/history.html (accessed on 16 September 2008).

- Hu, J., *"Lawsuit targets copy-protected CD's"*, CNET News.com, 7 September 2001, located at http://news.cnet.com/news/0-1005-200-7090886.html?tag=dd.ne.dtx.nl-sty.0 (accessed on 1 August 2008).

- Hu, J., *"Napster looks for better filters"*, CNET News.com, 20 April 2001, located at http://news.cnet.com/news/0-1005-200-5681756.html?tag=rltdnws (accessed on 5 June 2008).

- Hudson, A., *"Can't Get No Satisfaction: The Rise (And Fall) of Grokster and Peer-To-Peer File Sharing"*, 59 Ark. L. Rev. 889, 2006-2007.

- Hugenholtz, B., Guibalt, L., and Van Geffen, S., *"The Future of Levies in a Digital Environment"*, Amsterdam, Institute for Information Law, March 2003, located at http://www.ivir.nl/publications/other/DRM&levies-report.pdf (accessed on 6 June 2008).

- Immink, K., *"The Compact Disc Story"*, Journal of the Audio Engineering Society, Vol. 46, Issue 5, May 1998.

- Jackson, M., and Shelly, M., *"Black Hats and White Hats: Authorisation of Copyright Infringement in Australia and the United States"*, International Journal of Law and Information Technology, Vol. 14, Issue 1, 2006.

- Jacques, R., *"Apple iPhone could Cannabalise iPod Sales"*, ITNews, 19 January 2007, located at http://www.itnews.com.au/news/44596,apple-iphone-could-cannibalise-ipod-sales.aspx (accessed on 22 February 2008).

- James, D., *"Digital Rights Management & Music. A Barrier to Creativity?"*, Sound on Sound Magazine, August 2003, located at http://www.soundonsound.com/sos/aug03/articles/drm.htm (accessed on 31 August 2008).

- Jensen, J., *"Everything You Wanted to Know about MP3"*, Entertainment Weekly, 12 March, 1999.

- Jobs, S., *"Thoughts on Music"*, Apple.com, 6 February 2007, located at http://www.apple.com/hotnews/thoughtsonmusic (accessed on 5 February 2008).

- Johns, A., *"Pop music pirate hunters"*, Daedalus, Vol. 131, Issue 2, Spring 2002.

- Jolish, B., *"Scuttling the Music Pirate: Protecting Recordings in the Age of the Internet"*, 17 Entertainment and Sports Lawyer 9, Spring 1999.

- Kawatmoto, D., *"Amazon to offer DRM-free downloads"*, CNET News.com, 16 May 2007, located at http://www.news.com/Amazon-to-offer-DRM-free-music-downloads/2100-1025_3-6184178.html (accessed on 1 July 2008).

- Kayne, R., *"What is Ripping a CD?"*, Wisegeek, 2 August 2008, located at http://www.wisegeek.com/what-is-ripping-a-cd.htm (accessed on 24 August 2008).

- Kelly, T., *"Handheld Technology Today and Tomorrow – A Look at PDAs"*, Car Audio and Electronics, located at http://www.caraudiomag.com/specialfeatures/0204cae_handheld_technology/index.html (accessed on 3 October 2008).

- Kendall, C., *"Copyright Piracy and the P2P Polemic"*, Intellectual Property Forum, Issue 53, June 2003.

- Kidd, D., *"Essential Filesharing"*, Australian PC Authority Magazine, Haymarket Media Pty Ltd, April 2006.

- Kim, Choi and Lim Intellectual Property Law Newsletter, *"The Demise of Soribada - Soribada Case: The Korean Version of Napster"*, Kim, Choi and Lim Intellectual Property Law Newsletter, September 2002, located at http://218.50.55.153:8080/archives/attboard_e/1/2/Newsletter%200209.pdf (accessed on 14 November 2005).

- Kim, E., *"Youtube: Testing the Safe Harbors of Digital Copyright Law"*, 17 S. Cal. Interdisc. L.J. 139, 2007-2008.

- Kimrey, B., *"Amateur Guitar Player's Lament II: A Critique of A&M Records, Inc. v. Napster, Inc., and a Clarion Call for Copyright Harmony in Cyberspace"*, 20 The Review of Litigation 309, Spring 2001.

- King, B., *"Introduction to Laser Disc"*, European Laser Disc Group, 17 October 1995, located at http://www.ee.surrey.ac.uk/Contrib/EuropeLD/LDintro.html (accessed on 20 January 2008).

- King, B., *"New Salvo in Piracy, Privacy War"*, Wired News, 21 August 2002, located at http://www.wired.com/news/mp3/0,1285,54678,00.html (accessed on 24 August 2008).

- Koman, R., *"Ian Clarke Has Big Plans for the Internet"*, Open P2P.com, 14 November 2000, located at http://www.open2p.com/pub/a/p2p/2000/11/14/ian.html?page=1 (accessed on 17 June 2001).

- Kramarsky, S., *"Copyright Enforcement in the Internet Age: The Law and Technology of Digital Rights Management"*, 11 Journal of Art and Entertainment Law, Spring 2001.

- Krim, J., *"Judge Orders Internet Providers to Help Trace Online Pirates"*, Technews.com, 21 January 2003, located at http://www.washingtonpost.com/ac2/wp-dyn?pagename=article&node=&contentId=A23100-2003Jan21&notFound=true (accessed on 18 July 2008).

- Kristula, D., *"The History of the Internet"*, Davesite.com, August 2001, located at http://www.davesite.com/webstation/net-history1.shtml (accessed 4 July 2008).

- Kruger, C., *"Passing the Global Test: DMCA §1201 as an International Model for Transitioning Copyright Law into the Digital Age*", 28 Hous. J. Int'l L. 281, 2006.

- Ku, R., *"Promoting Diverse Cultural Expression: Lessons from the U.S. Copyright Wars"*, 2 Asian J. WTO & Int'l Health L & Pol'y 369, 2007.

- Kulpa, A., *"Disturbing Yesterdays Media, Tomorrow: How Media Companies Mask Antiquated Operating Models with the Veil of Copyright"*, 16 Seton Hall J. Sports & Ent. L. 225, 2006.

- Kusisto, O., *"Magnetic Tape Recording: Reels, Cassettes, or Cartridges?"*, Journal of the Audio Engineering Society. Vol. 24, 1977.

- Landen, J., *"Beyond Napster: An Enforcement Crisis in Copyright Law?"*, 28 Northern Kentucky University Law Review 713, 2001.

- Lange, M., *"Digital Music Distribution Technologies Challenge Copyright Law: A Review of RIAA v MP3.com and RIAA v. Napster"*, 45 Boston Bar Journal 14, March/April 2001.

- Lau, T., *"Australia v Napster: how would Australian courts respond?"*, Australian Intellectual Property, Vol. 14, No. 10, April 2002.

- Lee, C., *"A & M Records (and others) v. Napster. Time for Napster to Face the Legal Music?"*, Newcastle Law Review, Vol. 4, No. 2, 2000.

- Lee, C., *"Copyfight between the music industry and universities"*, Intellectual Property Law Bulletin, Vol. 16, No. 5, April 2003.

- Lee, C., *"Music giants battle Australian universities over internet copyright infringement"*, Intellectual Property Law Bulletin, Vol. 15, No. 10, April 2003.

- Lee, J., *"The Ongoing Design Duty in Universal Music Australia Pty Ltd v. Sharman License Holdings Ltd – Casting the Scope of Copyright Infringement Even Wider"*, International Journal Of Law And Information Technology, Vol. 15, Issue 3, 2007.

- Leeds, J., *"Warner Music Goes Public with Scaled-back Stock Offering"*, New York Times, 12 May 2005, located at http://www.nytimes.com/2005/05/11/business/worldbusiness/11iht-warner.html (accessed on 2 February 2008).

- Leiner, B., Cerf, V., Clark, D., Kahn, R., Kleinrock, L., Lynch, D., Postel, J., Roberts, L., and Wolff, S., *"A Brief History of the Internet"*, Internet Society (ISOC), December 2003, located at http://www.isoc.org/internet/history/brief.shtml (accessed on 19 February 2008).

- Lemley, M., *"Rationalizing Internet Safe Harbors"*, 6 J. On Telecomm. & High Tech. L. 101, 2007-2008.

- Leong, K., *"Current Development: ITunes: Have they created a system for International Copyright Enforcement"*, 13 New. Eng. J. Int'l & Comp. L. 365, Spring 2007.

- Leung, T., *"Misconceptions, Miscalculations, and Mistakes: P2P, China, and Copyright"*, 30 Hastings Int'l & Comp. L. Rev. 151, 2006-2007.

- Levine, R., *"New Model for Sharing: Free Music with Ads"*, The New York Times, 23 April 2007, located at http://www.nytimes.com/2007/04/23/technology/23qtrax.html?_r=3&scp=3&sq=qtrax&st=nyt&oref=slogin&oref=slogin&oref=slogin (accessed on 30 April 2008).

- Levy, S., *"Turning Off the Music Tap: Is music piracy so ingrained that only draconian legislation can stop it – or is there a better way to make sure artists get their money"*, Newsweek, 13 May 2002.

- Leyshon, A., Webb, P., French, S., Thrift, N., and Crewe, L., *"On the Reproduction of the Music Industry after the Internet"*, Media, Culture, and Society**,** Vol. 27, 2005.

- Liberman, A., and Kremer, B., *"AUSFTA-time to reconsider Australian and US law regarding exclusive licences of copyright and patents?"*, Intellectual Property Bulletin, Vol. 17, No. 2, June 2004.

- Lilla Montagnani, M., *"A New Interface between Copyright Law and Technology: How User-Generated Content will Shape the Future of Online Distribution"*, 26 Cardozo Arts & Ent. L.J. 719, 2008-2009.

- Lim, L., *"Samsung launched the World's first MP3 mobile phone"*, Mobile.com.au, 6 September 2000, located at http://www.imobile.com.au/Whatsnew/default.asp?ID=whatsep0001 (accessed on 4 September 2008).

- Liron, M., *"Windows XP Media Player"*, XPUpdate.com, 9 August 2006, located at http://www.updatexp.com/windowsxpmediaplayer.html (accessed on 6 May 2008)

- Loftin, J., *"Secondary Liability for Copyright Infringement: Why the Courts may be Nearing the End of the Line for Imposing Further Liability on Peer-To-Peer Software Distributors"*, 37 Cumb. L. Rev. 111, 2006-2007.

- Loughlan, P., *"Pirates, Parasites, Reapers, Sowers, Fruits, Foxes...The Metaphors of Intellectual Property"*, 28 Sydney Law Review 211, 2006.

- Lovatt, F., *"iMesh Pays Out, Changes Business Model"*, Digital-Lifestyles.info, 22 July 2004, located at http://digital-lifestyles.info/display_page.asp?section=business&id=1418 (accessed on 27 August 2005).

- Lowe, S., *"First criminal charges of internet piracy"*, Sydney Morning Herald, 14 May 2003, located at http://www.smh.com.au/articles/2003/05/13/1052591788418.html?oneclick=true (accessed on 15 May 2008).

- Lunceford, B., and Lunceford, S., *"Meh - The Irrelevance of Copyright in the Public Mind"*, 7 NW. J. Tech. & Intell. Prop. 33, 2008-2009.

- Macavinta, C., *"Teen charged in Connection with DVD Cracking Tool"*, Cnet News.com, 25 January 2000, located at http://news.cnet.com/category/0-1005-200-1531192.html, (accessed on 14 March 2005).

- Mackenzie, K., *"ARIA plans download chart"*, The Australian, 20 January, 2004.

- Mackenzie, K., *"Battle brews over net music"*, The Australian, 20 January, 2004.

- Mackenzie, K., *"Music piracy crackdown"*, The Australian, 30 April, 2002.

- Mali, V., *"An alternative Operating Model for the Record Industry Based on the Development and Application of Non-Traditional Financial Models"*, 15 UCLA Ent. L. Rev. 127, 2008.

- Malik, A., *"Oz Swiftel Case settled in a shroud of secrecy"*, The Register, 14 October 2005, located at http://www.theregister.co.uk/2005/10/14/swiftel_over/, (accessed on 18 October 2008).

- Mangis, C., *"Music for Sale – Will people subscribe?"*, PC Magazine, Vol. 21, Issue 3, 12 February 2002.

- Mariano, G., *"BMG tests copy-protection CD's"*, CNET News.com, 30 July 2001, located at http://news.cnet.com/news/0-1005-200-6719912.html?tag=rltdnws (accessed on 12 August 2008).

- Mariano, G., *"Copy-protected CD's wounded Pride"*, CNET News.com, 15 May 2001, located at http://news.cnet.com/news/0-1005-200-5936091.html?tag=rltdnws (accessed on 30 August 2008).

- Mariano, G., *"Label releases copy-protected CD with Pride"*, CNET News.com, 14 May 2001, located at http://news.cnet.com/news/0-1005-200-5924584.html?tag=rltdnws (accessed on 30 August 2008).

- Mark, R., *"RIAA Files 261 Lawsuits against Alleged Music Pirates"*, DC Internet.com, 8 September 2003, located at http://dc.internet.com/news/article.php/3073931 (accessed on 24 February 2008).

- Maslog-Levis, K., *"Australian ISP raided in BitTorrent Crackdown"*, CNET News.com, 10 March 2005, located at http://news.com.com/Australian+ISP+raided+in+BitTorrent+crackdown/2100-1025_3-5608567.html (accessed on 19 March 2005).

- Maslog-Levis, K., *"Free AU consumers to copy music for personal use: Proposal"*, ZDNet Australia, 15 June 2004, located at http://www.zdnet.com.au/news/business/0,39023166,39150538,00.htm (accessed on 7 July 2006).

- Massey, R., *"Spelling – The End for Napster"*, Entertainment Law Review, Issue 8, 2001.

- Matin, A., *"Digital Rights Management (DRM) in Online Music Stores: DRM-Encumbered Music Downloads' Inevitable Demise as a Result of the Negative Effects of Heavy-Handed Copyright Law"*, 28 Loy. L.A. Ent. L. Rev. 265, 2007-2008.

- McBride, S., and Smith, E., *"Music Industry to Abandon Mass Suits"*, The Wall Street Journal, 19 December 2008, located at http://online.wsj.com/article/SB122966038836021137.html (accessed on 21 December 2008).

- McCarthy, C., *"EMI, Apple partner on DRM-free premium music"*, CNET News.com, 2 April 2007, located at http://usatoday.com.com/EMI,+Apple+partner+on+DRM-free+premium+music/2100-1027_3-6172398.html (accessed on 6 May 2008).

- McConnachie, D., *"Swiftel Bid for Higher Court Denied"*, PC World, 17 March 2003, located at http://www.pcworld.idg.com.au/index.php/id;67841247;fp;1024;fpid;3 (accessed on 20 March 2005).

- McDonald, H., *"EMI"*, About.com, located at http://musicians.about.com/od/companyprofiles/p/EMI.htm (accessed on 9 October 2008).

- McGarvey, R., *"P2P is dead long live P2P: Napster has been clobbered by courts, Scour has effectively vanished, KaZaA (the Dutch Napster) has been hit by huge legal sticks and shut down"*, E-Content, Vol. 25, Issue 3, March 2002.

- McGill, D., *"New Year, New Catch-22: Why the RIAA's Proposed Partnership With ISPs Will Not Significantly Decrease the Prevalence of P2P Music File Sharing"*, 29 Loy. L.A. Ent. L. Rev. 353, 2008-2009.

- McGuire, D., *"At a Glance: MGM v. Grokster"*, Washingtonpost.com, 28 March 2005, located at http://www.washingtonpost.com/wp-srv/technology/articles/groksterprimer_033805.htm (accessed on 18 May 2008).

- McGuire, D., *"Court Rejects Music Industry Subpoenas"*, Washingtonpost.com, 19 December 2003, located at http://www.washingtonpost.com/ac2/wp-dyn/A14836-2003Dec19?language=printer (accessed on 22 December 2008).

- Meisel, J., *"Entry into the Market for Online Distribution of Digital Content: Economic and Legal Ramifications"*, SCRIPT-ed Vol. 5, No. 1, April 2008.

- Menell, *"Intellectual Property: General Theories"*, Encyclopaedia of Law and Economics, 2000, located at http://www.dklevine.org/archive/ittheory.pdf (accessed on 7 February 2008).

- Menta, R., *"Oklahoma Student to be Sacrificial Lamb in MP3 Wars"*, MP3newswire.net, 21 September 2000, located at http://www.mp3newswire.net/stories/2000/victim.html (accessed on 16 January 2008).

- Menta, R., *"RIAA and Audiogalaxy Settle"*, MP3newswire.net, 18 June 2002, located at http://www.mp3newswire.net/stories/2002/agsettle.html (accessed on 28 June 2008).

- Menta, R., *"The RIAA Settles Fast With 12-year-old Trader"*, MP3newswire.net, 10 September 2003, located at http://www.mp3newswire.net/stories/2003/brianna_laHara.html (accessed on 10 October 2008).

- Menta, R., *"Universal buys MP3.com"*, MP3 Newswire.net, 21 May 2001, located at http://www.mp3newswire.net/stories/2001/vivendi.html (accessed on 8 April 2008).

- Merante, J., *"A Role in the Remedy: Finding a Place for ISPs in the Digital Music World"*, 29 Loy. L.A. Ent. L. Rev. 387, 2008-2009.

- Mercurio, B., *"Internet Service Provider Liability for Copyright Infringement of Subscribers: A Comparison of the American and Australian Efforts to Combat the Uncertainty"*, ELAW Journal, Vol. 9, Issue 4, 2002, located at http://www.murdoch.edu.au/elaw/issues/v9n4/mercurio94nf.html (accessed on 19 December 2008).

- Microsoft, *"Taking advantage of Superdistribution"*, MSDN, located at http://msdn.microsoft.com/en-us/library/bb649412(VS.85).aspx (accessed on 25 September 2008).

- Middleton, G., *"Copyright Beyond the Digital Frontier – Australia's Proposed Digital Agenda Reforms"*, Journal of Law and Information Science, Vol. 10, Issue 1, 1999.

- Middleton, G., *"Copyright Conundrum – Liability of ISPs for Online Copyright Infringement"*, Australian Computer Society, Inc. This paper appeared at the Australasian Information Security Workshop 2005, Newcastle, Australia. Conferences in Research and Practice in Information Technology, Vol. 44, located at http://crpit.com/confpapers/CRPITV44Middleton.pdf (accessed on 16 June 2008).

- Miller, P., *"Microsoft launches the Zune!"*, Engadget.com, 14 September 2006, located at http://www.engadget.com/2006/09/14/microsoft-launches-the-zune/ (accessed on 30 September 2006).

- Miller, S., *"Peer-to-Peer File Distribution: An Analysis of Design, Liability, Litigation, and Potential Solutions"*, The Review of Litigation, Vol. 25, Issue 1, Winter 2006.

- Miller. J., *"The Development of the Legal Information Institutes around the World"*, 30 Can. L. Libr. Rev. 8, 2005.

- Milligan, L., *"MP3 accused plead guilty"*, Australian IT News, 2 October 2003, located at http://australianit.news.com.au/articles/0,7204,7432060^15306^^nbv^,00.html (accessed on 9 October 2005).

- MIPI, *"High Court refuses Cooper Appeal"*, 15 June 2007, located at http://www.mipi.com.au/IgnitionSuite/uploads/docs/MediaRelease-HighCourtrefusesCooperappealpressrelease.pdf (accessed on 13 August 2007).

- Mitchell, A., and Castle C., *"What's wrong with ISP Music Licensing"*, 26 Ent. & Sports Law 4, 2008-2009.

- Molteni, L., and Ordanini, A., *"Consumption Patterns, Digital technology and Music downloading"*, Long Range Planning, No. 36, 2003.

- Monkman, S., *"Corporate Erosion of Fair Use: Global Copyright Law Regarding File Sharing"*, 6 Asper Rev. Int'l Bus. & Trade L. 265, 2006.

- Montalbano, E., *"Microsoft changes tune on selling DRM-free songs"*, Computerworld, 6 April 2007, located at http://www.computerworld.com/action/article.do?command=viewArticleBasic&taxonomyName=mobile_devices&articleId=9015898&taxonomyId=75 (accessed on 8 January 2008).

- Montgomery, G., *"MIPI Meltdown – Music industry piracy unit in crisis"*, APC Magazine, 14 October 2005, located at http://www.apcstart.com/mipi/ (accessed on 12 November 2005).

- Montgomery, G., and Warne, D., *"Inside the Kazaa Raid"*, apcmag.com, May 2004, located at http://news.dmusic.com/article/12034 (accessed on 14 August 2008).

- Morishita, K., *"Rights or Freedom"*, The Nikkei Weekly, 17 June, 2002.

- Morton, E., *"I wish I was a punk rocker with MySpace friends to spare"*, CNET.com.au, 1 December 2006, located at http://www.cnet.com.au/mobilephones/phones/0,239025953,339272508,00.htm (accessed on 9 January 2007).

- MP3-Converter.com, *"MP3 Decoders"*, MP3-Converter.com, located at http://www.mp3-converter.com/decoders/ (accessed on 16 July 2008).

- MP3-Converter.com, *"MP3 Encoders"*, MP3-Converter.com, located at http://www.mp3-converter.com/encoders/ (accessed on 16 July 2008).

- Murck, P., *"Waste Content: Rebalancing Copyright Law to Enable Markets of Abundance"*, 16 Alb. L.J. Sci. & Tech. 383, 2006.

- Music Media Watch, *"RIAJ releases 2007 Figures, Mobile still going Strong"*, Japan Inc. Magazine, 17 April 2008, located at http://www.japaninc.com/mmw120 (accessed on 17 December 2008).

- Myers, M., *"Qualitative Research in Information Systems"*, MS Quarterly, Vol. 21, No. 2, June 1997.

- Myska, M., *"Flat Fee Music"*, 2 Masaryk U. J.L. & Tech. 75, 2008.

- Natividad, K., *"Stepping it up and taking it to the Streets: Changing Civil and Criminal Copyright Enforcement Tactics"*, 23 Berkeley Tech. L.J. 469, 2008.

- Natke, J., *"Collapsing Copyright Divisibility: A Proposal for Situational or Medium Specific Indivisibility"*, Mich. St. L. Rev. 483, 2007.

- Nichols, S., *"DRM activists hail EMI Apple deal"*, Australian PC Authority, 4 April 2007, located at http://www.pcauthority.com.au/news.aspx?CIaNID=49238 (accessed on 18 June 2007).

- Nickell, J., *"Blame it on Rio"*, Wired News, 9 October 1998, located at http://www.wired.com/news/culture/0,1284,15535,00.html, (accessed on 15 April 2008).

- Norman, J., *"Staying Alive: Can the Recording Industry Survive Peer-to-Peer?"*, 26 Colum. J.L. & Arts 371, Summer 2003.

- Oberholzer, F., and Strumpf, K., *"The Effect of File Sharing on Record Sales: An Empirical Analysis"*, Technical Report, University of North Carolina, March 2004, located at http://www.unc.edu/~cigar/papers/FileSharing_March2004.pdf (accessed on 3 July 2008).

- Olsen, P., *"Fourtou's Vivendi To Drop 'Universal'?"*, Forbes.com, 28 February 2006, located at http://www.forbes.com/2006/02/28/vivendi-universal-rebrand-cx_po_0228autofacescan04.html (accessed on 9 December 2008).

- Ondrasik, B., *"Death of the 'Free Internet Myth'"*, Masaryk U. J.L. & Tech 75, 2007.

- Osborn, G., and Greenfield, S., *"Understanding Commercial Music Contracts: The Place of Contractual Theory"*, Journal of Contract Law, Vol. 23, 2007.

- Patrizio, A., *"DOJ Cracks Down on MP3 Pirate",* Wired News, 23 August 1999, located at http://wired-vig.wired.com/news/politics/0,1283,21391,00.html (accessed on 29 October 2008).

- Pearce, J., *"AU Universities likely to hand over alleged piracy information – soon"*, ZDNet, 30 May 2003, located at http://www.zdnet.com.au/au-universities-likely-to-hand-over-alleged-piracy-information-soon-120274977.htm (accessed on 17 July 2008).

- Pearce, J., *"Music industry demands investigation of University court conduct"*, ZDNet, 29 May 2003, located at http://www.zdnet.com.au/music-industry-demands-investigation-of-university-court-conduct-120274919.htm (accessed on 17 September 2008).

- Pearce, J., *"Police raid Sydney University over alleged music piracy"*, ZDNet, 30 May 2003, located at http://www.zdnet.com.au/newstech/ebusiness/story/0,2000048590,20274970,00.htm (accessed on 4 August 2005).

- Peitz, M., and Waelbrock, P., *"Piracy of Digital Products: A Critical Review of the Economics Literature"*, CESIfo Working Paper 1071, November 2003.

- Peitz, M., and Waelbrock, P., *"Why the Music Industry May Gain From Free Downloading: The Role of Sampling"*, International Journal of Industrial Organization, Vol. 24, Issue 5, September 2006.

- Perritt, H., *"New Architectures for Music: Law Should Get Out of the Way"*, 29 Hastings Comm. & Ent. L.J. 259, 2006-2007.

- Pessach, G., *"An International-Comparative Perspective on Peer-To-Peer File-Sharing and Third Party Liability in Copyright Law: Framing the Past, Present, and Next Generations' Questions"*, 40 Vand. J. Transnat'l L. 87, 2007.

- Pfeiffer Consulting Report, *"Why the Audio CD is Dying...And What Will Replace It"*, located at http://pfeifferreport.com/trends/Pfeiffer_Music_Rep.pdf, 2007 (accessed 24 December 2008).

- Picker, R., *"Mistrust-Based Digital Rights Management"*, 5 J. On Telecomm. & High Tech. L. 47, 2006-2007.

- Pollack, W., *"Tuning In: The Future of Copyright Protection for Online Music in the Digital Millennium"*, 68 Fordham Law Review 2445, 2000.

- Pollette, C., *"How the Google-Apple Cloud Computer will work?"*, Howstuffworks, 6 February 2008, located at http://computer.howstuffworks.com/google-apple-cloud-computer.htm (accessed on 9 February 2008)

- Pouwelse, J., Garbacki, P., Epema, D., and Sips, H., *"Pirates and Samaritans: a Decade of Measurements on Peer Production and their Implications for Net Neutrality and Copyright"*, Telecommunications Policy Vol. 32, Issue 11, 2008.

- Pruitt, S., *"RIAA aims to bid adios to Puretunes"*, InfoWorld, 10 July 2003, located at http://www.infoworld.com/article/03/07/10/HNpuretunes_1.html (accessed on 14 July 2008).

- Rajkomar, B., *"Dealing with Casual Piracy: Limiting Distribution of Copyrighted Content with Digital Rights Management"*, 9 Vand. J. Ent. & Tech. L. 497, 2006-2007.

- Ramasastry, A., *"Court strikes a good balance in file swapping case"*, CNN.com, 11 November 2004, located at http://www.cnn.com/2004/LAW/11/11/ramasastry.file.swapping/ (accessed on 21 November 2008).

- Ramsay, R., *"Ditch the disc: A guide to online music in Australia"*, CNET.com.au, 25 October 2005, located at http://www.cnet.com.au/mp3players/0,39028967,40054461,00.htm (accessed on 19 November 2005).

- Rappa, M., *"Business Models on the Web"*, Managing the Digital Enterprise, 14 January 2004, located at http://digitalenterprise.org/models/models.html (accessed on 13 December 2008).

- Reardon, M., *"Oops! They're swapping again"*, CNET News.com, 16 January 2004, located at http://news.com.com/Oops+Theyre+swapping+again/2100-1027_3-5142382.html (accessed on 11 February 2008).

- Rendell, J., *"Copyright Law in the new Millenium: Digital Downloads and Performance Rights"*, 81 Temp. L. Rev. 907, 2008.

- Resnikoff, P., *"RIAA Delivers More Lawsuits, Catches More Drama"*, Digital Music News, 25 April 2006, located at http://www.digitalmusicnews.com/results?title=MIT (accessed on 13 December 2006).

- Reuters, *"Australia shutters music piracy site"*, Reuters, 24 April 2003, located at http://www.zdnet.com.au/newstech/security/story/0,2000048600,20273952-1,00.htm (accessed on 25 April 2005).

- Reuters, *"Global music sales keep falling, pretty much everywhere"*, Reuters, 22 April 2009, located at http://blogs.reuters.com/mediafile/2009/04/22/global-music-sales-keep-falling-pretty-much-everywhere/ (accessed on 24 April 2009).

- Reuters, *"U.K. music industry swipes at swappers"*, Reuters, 25 March 2004, located at http://news.com.com/2100-1026-5179121.htm (accessed on 23 April 2008).

- Reynolds, D., *"The RIAA Litigation War on File Sharing and Alternatives more Compatible with Public Morality"*, 9 Minn. J.L. Sci. & Tech. 977, 2008.

- Rich, L., *"Limitations of remedies available against Carriage Service Providers under the AUSFTA – more trouble than it's worth?"*, NSW Society for Computers and the Law Journal, Issue 59, March 2005, located at http://www.nswscl.org.au/journal/59/Rich.html (accessed on 13 October 2008).

- Richards, B., *"The Times they are A-Changin: A Legal Perspective on how the Internet is Changing the way we Buy, Sell, and Steal Music"*, 7 Journal of Intellectual Property Law 421, Spring 2000.

- Riehl, D., *"P2P Distribution Systems: Will Napster, Gnutella, and Freenet Create a Copyright Nirvana or Gehenna?"*, 27 William Mitchell Law Review 1761, 2001.

- Riley, J., *"ISPs accept copyright promise"*, The Australian, 8 December, 2004.

- Robjohns, H., *"A brief History of Microphones"*, Microphone Data Book, 2001, located at http://www.microphone-data.com/pdfs/History.pdf (accessed on 16 January 2008).

- Rogers, B., *"Has the Internet Gone Beyond the Reach of Copyright Legislation? A&M Records, Inc v. Napster, Inc."*, 69 University of Cincinnati Law Review 1339, Summer 2001.

- Roth, M., *"Entering the DRM-Free Zone: An Intellectual Property and Antitrust Analysis of the Online Music Industry"*, 18 Fordham Intell. Prop. Media & Ent. L.J. 515, 2007-2008.

- Ryan, T., *"Infringement.com: RIAA v. Napster and the War against Online Music Piracy"*, 44 Arizona Law Review 495, Summer 2002.

- Sabbagh, D., *"Tough year leaves EMI trailing the music Majors"*, Times Online, 4 April 2008, located at http://business.timesonline.co.uk/tol/business/industry_sectors/media/article3683398.ece (accessed on 19 November 2008).

- Sainsbury, M., *"The Copyright Act in the Digital Age"*, Journal of Law and Information Science, Vol. 11, No. 2, 2000/2001.

- Sayer, P., *"Audiogalaxy Napstered"*, Australian PC World, 1 August, 2002.

- Schaumann, N., *"Intellectual Property in an Information Economy: Copyright Infringement and P2P Technology"*, 28 William Mitchell Law Review 1001, 2002.

- Schmucker, M., *"Protection of coded music"*, Interactive Music Network, located at http://www.interactivemusicnetwork.org/wg_protection/upload/musicnetwork-de4-5-1-protection-of-coded-music-v1-4.pdf (accessed on 20 July 2005).

- Schoen, K., *"Metro-Goldwyn-Mayer v. Grokster: Unpredictability in Digital Copyright Law"*, Northwestern Journal of Technology and Intellectual Property Law, Vol. 5, No. 1, 2006.

- Schonfeld, E., *"Global Digital Music Sales up 40 percent, but overall sales down 10 percent"*, Techcrunch, 25 January 2008, located at http://techcrunch.com/2008/01/25/global-digital-music-sales-up-40-percent-but-overall-sales-down-10-percent/ (accessed on 11 December 2008).

- Schoenherr, S., *"Recording Technology History",* History Department, University of San Diego, 6 July 2005, located at http://www.hadisumoro.com/audio/artikel/Recording%20Technology%20History%201877-2005.pdf (accessed on 6 April 2008).

- Scott, J., *"Leave them Kids Alone - A Proposed Fair Use Defense for Noncommercial P2P Sharing of Copyrighted Music Files"*, 3 FIU L. Rev. 235, 2007-2008.

- Seay, J., *"Hang 'Em High: Will the Recording Industry Association Of America's New Plan to Posse Up with Internet Service Providers in the Fight Against Online Music Piracy Finally Tame the Wild Internet"*, 16 J. Intell. Prop. 269, 2008-2009.

- Seetoo, C., *"Can Peer-to-Peer Internet Broadcast Technology Give Fans another Chance - Peer-to-Peer Streaming Technology and its Impact"*, J.L. Tech. & Pol'y 369, 2007.

- Segkar, A., *"Is a general fair use defence required in the digital age?"*, Butterworths Internet Law Bulletin, Vol. 8, No. 6, September 2005.

- Segkar, A., *"The Napster Decision and Beyond – a Look at Music Copyright Issues in the Internet Age"*, Intellectual Property Forum, Issue 53, June 2003.

- Sellars, P., *"Behind the Mask - Perceptual Coding: How MP3 Compression Works"*, Sound on Sound Magazine, May 2000, located at http://www.soundonsound.com/sos/may00/articles/mp3.htm (accessed on 2 August 2008).

- Sicker, D, Ohm, P., And Gunaji, S., *"The Analog Hole and the Price of Music: An Empirical Study"*, 5 J. On Telecomm. & High Tech. L. 573, 2006-2007.

- Siegal, H., and Semel, B., *"Combating Online Infringement Post-Napster"*, New Jersey Law Journal, Vol. 166, Issue 1, 1 October, 2001.

- Sifferd, J., *"The Peer-to-Peer Revolution: A Post-Napster Analysis of the Rapidly Developing File-Sharing Technology"*, 4 Vanderbilt Journal of Entertainment Law & Practice 92, Winter 2002.

- Simmons, S., *"Digital killed the recording star?"*, Media & Arts Law Review, Vol. 4, No. 2, June 1999.

- Slocombe, M., *"Ericsson and Napster Team Up For Mobile Music Service"*, Digital Lifestyles, 15 June 2005, located at http://digital-lifestyles.info/2005/06/15/ericsson-and-napster-team-up-for-mobile-music-service (accessed on 17 June 2005).

- Smalley, S., *"Grokster: round two in the peer to peer copyright fight"*, Butterworths Internet Law Bulletin, Vol. 8, No. 5, August 2005.

- Smith, T., *"Napster Boosts Music Sales – Survey"*, The Register, 21 July 2000, located at http://www.theregister.co.uk/2000/07/21/napster_boosts_music_sales_survey/ (accessed on 4 August 2008).

- So, S., *"Baidu to appeal copyright ruling on MP3 searches"*, The Standard – China's Business Newspaper, 21 September 2005, located at http://www.thestandard.com.hk/news_print.asp?art_id=1738&sid=4663721 (accessed on 25 September 2008).

- Sobel, D., *"A Bite Out of Apple - iTunes, Interoperability, and France's Dadvsi Law"*, 22 Berkeley Tech. L.J. 267, 2007.

- Sohn, G., *"Don't Mess with Success: Government Technology Mandates and the Marketplace for Online Content"*, 5 J. On Telecomm. & High Tech. L. 73, 2006.

- Solley, T., *"The Problem and the Solution: Using the Internet to Resolve Internet Copyright Disputes"*, 24 Ga. St. U. L. Rev. 813, 2007-2008.

- Sprigman, C., *"The 99 Cent Question"*, 5 J. On Telecomm. & High Tech. L. 87, 2006-2007.

- Srivastava, A., *"The Anti-Competitive Music Industry and the Case for Compulsory Licensing in the Digital Distribution of Music"*, 22 Touro L. Rev. 375, 2006.

- Strasser, M., *"Beyond Napster: How the Law Might Respond to a Changing Internet Architecture"*, 28 Northern Kentucky University Law Review 660, 2001.

- Strasser, S., *"The legality of linking: Universal Music v Cooper"*, Butterworths Internet Law Bulletin, Vol. 8, No. 5, August 2005.

- Suzor, N., *"Will mod-chips be legal in Australia?"*, nic.suzor.com, 15 December 2006, located at http://nic.suzor.com/20061215-NS-modchips (accessed on 23 December 2006).

- Tech Law Journal, *"DC Circuit Reverses in RIAA v. Verizon"*, Tech Law Journal, 19 December 2003, located at http://www.techlawjournal.com/topstories/2003/20031219.asp (accessed on 19 July 2008).

- Tehranian, J., *"Infringement Nation: Copyright Reform and the Law/Norm Gap"*, Utah L. Rev. 537, 2007.

- The Examiner, *"New 'legal' Napster launch this month"*, The Examiner, 11 October, 2003.

- The Local, *"Record Companies Sue Pirate Bay Four"*, The Local, 31 March 2008, located at http://www.thelocal.se/10818/20080331/ (accessed on 4 April 2008).

- Thomas, A., *"Online Music Piracy, Anonymity and Copyright Protection"*, Entertainment Law Review, Issue 1, 2001.

- Thompson, C., *"How Can I Swap Safely"*, Wired Magazine, 14 January 2006, located at http://www.wired.com/wired/archive/14.01/start.html?pg=11 (accessed on 26 June 2006).

- Thompson, C., *"The Copyright Legislation Amendment Act 2004: A stealth attack on CSPs"*, Findlaw Australia, January 2005, located at http://www.findlaw.com.au/articles/default.asp?task=read&id=13016&site=GN (accessed on 27 February 2005).

- Thurrott, P., *"Windows '7' FAQ"*, Paul Thurrott's SuperSite for Windows, 14 February 2007, located at http://www.winsupersite.com/faq/windows_7.asp (accessed on 20 June 2008).

- Tung, L., *"Google, Yahoo make lawmakers impotent, says Judge"*, ZDNet.com.au, 22 February 2008, located at http://www.zdnet.com.au/news/security/soa/Google-Yahoo-make-lawmakers-impotent-says-Judge/0,130061744,339286214,00.htm (accessed on 5 March 2008).

- Tussey, D., *"Music at the Edge of Chaos: A Complex Systems Perspective on File Sharing"*, 37 Loy. U. Chi. L.J. 147, 2005-2006.

- Vaidhyanathan, S., *"The Googlization Of Everything And The Future Of Copyright"*, 40 U.C. Davis L. Rev. 1207, 2006-2007.

- Van Caenegem, W., *"Napster and Gnutella: Is distributed file-swapping software legal in Australia"*, Australian Law & Technology Newsletter, Issue 25, 25 September, 2000.

- Vandore, E., and Veiga, A., *"Qtrax Debut on Hold Amid Licensing Snag"*, The Sydney Morning Herald, 29 January 2008, located at http://news.smh.com.au/qtrax-debut-on-hold-amid-licensing-snag/20080129-1onm.html (accessed on 4 May 2008).

- Varghese, J., *"Guide to copyright and patent law changes in the US Free Trade Agreement Implementation Bill 2004"*, Department of Parliamentary Services, Current Issues Brief No.3 2004-2005, 3 August 2005, located at http://www.aph.gov.au/library/Pubs/cib/2004-05/05cib03.pdf (accessed on 4 August 2008).

- Variety, *"Napster files for bankruptcy"*, Variety, Vol. 387, Issue 4, 10 June 2002.

- Veravanich, P., *"Rio Grande: The MP3 Showdown at Highnoon in Cyberspace"*, 10 Fordham Intellectual Property, Media & Entertainment Law Journal 433, Winter 2000.

- Vickers, A., *"Peering Beyond Today's Internet File Sharing Concerns: The Future of Bit Torrent Technology"*, Tulane Journal Of Technology & Intellectual Property, Vol. 8, 2006.

- Vincents, B., *"When Rights Clash Online: The Tracking of P2P Copyright Infringements vs. The EC Personal Data Directive"*, Int. J. Law Info. Tech., Vol. 16, No. 3, 2008.

- Von Lohmann, F., *"Calling All iPhone Developers: Support EFF's DMCA Exemption for Jailbreaking"*, Electronic Frontiers Foundation, 8 January 2009, located at https://www.eff.org/deeplinks/2009/01/iphone-developers-support-effs-dmca-exemption-jail (accessed on 11 January 2009).

- Wadhwa, A., *"Overcoming the Challenges Posted by Technology to Traditional Copyright Law: From Betamax to Grokster"*, Journal of Intellectual Property Law & Practice, Vol. 2, Issue 7, 2007.

- Wagman, M., and Kopp, R., *"The Digital Revolution is being Downloaded: Why and How the Copyright Act Must Change to Accommodate an Ever-Evolving Music Industry"*, 13 Vill. Sports & Ent. L.J. 271, 2006.

- Waladan, S., *"Copyright Law Following the Australia–US Free Trade Agreement: A Detrimental Shift in the Balance"*, National Library of Australia Gateways, No. 71, October 2004, located at http://www.nla.gov.au/ntwkpubs/gw/71/1copyright.html (accessed on 22 November 2008).

- Wardill, S., *"New music to burn CD pirates"*, The Courier Mail, 21 November 2002.

- Warner, B., *"Music Execs: Downloads, Lawsuits to Propel Recovery"*, Reuters, 22 January 2004, located at http://www.digital-djs.com/talk/thread-view.asp?threadid=970&posts=1 (accessed on 22 April 2008).

- Waters, D., *"Europe's online music plans"*, BBC News, 29 October 2003, located at http://news.bbc.co.uk/go/pr/fr/-/1/hi/entertainment/music/3217671.stm (accessed on 1 September 2008).

- Wearring, M., *"Kylie's life on Screen"*, News.com.au, 28 May 2008, located at http://www.news.com.au/entertainment/music/kylies-life-on-screen/story-e6frfn09-1111116462018 (accessed on 7 November 2008).

- Weatherall, K., *"Fair use, fair dealing: The Copyright Exceptions Review and the Future of Copyright Exceptions in Australia"*, Intellectual Property Research Institute of Australia, 20 May 2005, located at http://www.law.unimelb.edu.au/ipria/publications/workingpapers/Occasional%20Paper%203.05.pdf (accessed on 6 October 2005).

- Weatherall, K., *"Of Copyright Bureaucracies and Incoherence: Stepping Back from Australia's Recent Copyright Reforms"*, Vol 31, No.2, Melbourne University Law Review (2007), pp.30-31 download a document at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1091076 (accessed on 9 February 2008).

- Weatherall, K., *"Weatherall's Law: IP in the Law of Oz"*, weatherall.blogspot.com, 2002-2007, located at http://weatherall.blogspot.com (accessed on 8 January 2008).

- Webb, S., *"RIAA v. Diamond Multimedia Systems: The Recording Industry Attempts to Slow the MP3 Revolution – Taking Aim at the Jogger Friendly Diamond Rio"*, The Richmond Journal of Law, & Technology, Vol. 7, Issue 5, Fall 2000, located at http://www.richmond.edu/jolt/v7i1/note2.html (accessed on 26 June 2001).

- Wechsler, A., *"The Quest for Balance in Intellectual Property Law: An Emerging Paradigm or a Fad?"*, ATRIP Essay Competition 2009, located at http://www.atrip.org/upload/files/essays/winners2009/Andrea%20Wechsler.pdf (accessed on 4 June 2009).

- Welsh, J., *"Pay What You Like - No, Really: Why Copyright Law Should Make Digital Music Free For Noncommercial Uses"*, 58 Emory L.J. 1495, 2008-2009.

- Wempen, F., *"Build Your Skills: A comparison between DVD and CD-ROM"*, TechRepublic, 10 May 2001, located at http://articles.techrepublic.com.com/5100-10878_11-1047035.html (accessed on 4 February 2008).

- White, T., *"The music industry's web of intrigue. (Music to My Ears)"*, Billboard, Vol. 114, Issue 9, 2 March 2002.

- Wiehe, K., *"Dollars, Downloads and Digital Distribution: Is Making Available a Copyrighted Work a Violation of the Author's Distribution Right"*, 15 UCLA Ent. L. Rev. 117, 2008.

- Wilcox, J., *"Microsoft changes its tune on MP3 ripping"*, CNET News.com, 14 July 2001, located at http://news.cnet.com/news/0-1003-200-6567844.html (accessed on 5 February 2008).

- Wilde, .E., and Schwerzmann, J., *"When Business Models Go Bad: The Music Industry's Future"*, International Conference on E-business and Telecommunication Networks 2004 Conference Papers, located at http://dret.net/netdret/docs/wilde-music-icete2004.pdf (accessed on 29 October 2008).

- Williams, M., and Seet, S., *"Kazaa file sharing system found liable for authorising infringement of copyright"*, Butterworths Internet Law Bulletin, Vol. 8, No. 7, October 2005.

- Wunsch-Vincent, S., and Vickery, G., *"Digital Broadband Content: Music"*, A report presented to the OECD's Working Party on the Information Economy, 13 December 2005, located at http://www.oecd.org/dataoecd/13/2/34995041.pdf, (accessed on 24 April 2008).

- Xu, L., *"China's Baidu offers compromise search service for music downloads"*, Forbes.com, 25 October 2005, located at http://www.forbes.com/home/feeds/afx/2005/10/25/afx2296516.html, (accessed on 16 November 2008).

- Yen, A., *"Third Party Copyright after Grokster"*, 91 Minn. L. Rev. 184, 2006.

- Yu, P., *"P2P and the Future of Private Copying"*, 76 U. Colo. L. Rev 677, 2005.

- Zankel, J., *"A Little Help with Sharing: A Mandatory Licensing Proposal to Resolve the Unanswered Questions Surrounding Peer-To-Peer Liability for Contributory Copyright Infringement in the Wake Of Grokster"*, 80 S. Cal. L. Rev. 189, 2006-2007.

- Zemer, L., *"On the Value of Copyright Theory"*, 1 Intell. Prop. Q. 55, 2006.

- Zentner, A., *"Measuring the Effect of File Sharing on Music Purchases"*, 49 Journal of Law and Economics 63, April 2006.

- Zepeda, L., *"Copyright ownership and Napster Technology"*, Berkley Technology Law Journal, Vol. 17, Issue 1, Winter 2002.

- Zeropaid News, *"Weblisten.com bites the dust"*, Zeropaid News, 31 May 2005, located at http://www.zeropaid.com/news/5436/Weblisten.com+bites+the+dust (accessed on 26 June 2008).

- Zeropaid, *"Norwegian Student Fined for Online Music Piracy"*, Zeropaid, 23 January 2003, located at http://www.zeropaid.com/news/2370/Norwegian+Student+Fined+for+Online+Music+Piracy (accessed on 3 May 2008).

- Zimmerman, D., *"Living without Copyright in a Digital World"*, 70 Alb. L. Rev. 1375, 2006-2007.

- Zimmerman, E., *"P2P File Sharing: Direct and Indirect Copyright Infringement"*, Florida Bar Journal, Vol. 78, Issue 5, May 2004, located at http://www.floridabar.org/DIVCOM/JN/JNJournal01.nsf/76d28aa8f2ee03e185256aa9005d8d9a/a79cab7e1a590ea585256e7f005f57d3?OpenDocument (accessed on 17 July 2008).

CASES

- *A & M Records v Audio Magnetics Inc.* [1979] FSR 1.

- *A & M Records, Inc. v. Napster, Inc.* 114 F. Supp. 2d 896 (N.D. Cal. 2000). aff'd in part rev'd in part, 239 F.3d 1004 (9th Cir. 2001); aff'd 284 F.3d 1091 (9th Cir. 2001); 2002 US App. LEXIS 4752 (9th Cir. 2001).

- *Adelaide Corporation v. Australasian Performing Right Association Ltd* (1928) 40 CLR 481.

- *Arista Records, Inc., et al. v. Sakfield Holding Company S.L., et al.* 03-CV-01474 (District Court for the District of Columbia, 2003).

- *Australasian Performing Rights Association Ltd v Jain* (1990) 26 FCR 53.

- *Australian Performing Right Association v Metro on George* (2004) 61 IPR 575.

- *Australian Performing Rights Association v Commonwealth Bank* (1992) 111 ALR 671.

- *Australian Video Retail Association v Warner* (2002) IPR 242.

- *BMG Australia Ltd v. S.11*(Unreported settled out of Court).

- *BPI v. JetGroove* (Unreported settled out of Court).

- *CBS Records Australia v Telmak Teleproducts (Australia)* (1989) 9 IPR 440.

- *CBS Songs Ltd v. Amstrad Consumer Electronics plc* [1987] 3 All ER 751; (1988) 11 IPR 1.

- *CCH Canada Ltd v. Law Society of Canada* 2004 SCC 13.

- *Commonwealth Director of Public Prosecutions v. Le, Ng and Tran* (Local Court NSW, Chief Magistrate Graeme Henson, 18 November 2003).

- *CRIA v. Bell/Sympatico, Rogers Communications Inc., Shaw Communications Inc., TELUS Corporation and Videotron Telecom Ltd* 2004 FC 488 (Ottawa, Ontario 31 March 2004).

- *Ediciones Musicales Horus v. Weblisten* (Provincial Court of Barcelona, 2003).

- *Elektra Entertainment Group et al v. Does 1-6.* US District Court Eastern District of Pennsylvania 04-CV-1241.

- *Ernest Turner Electrical Instruments Ltd v Performing Right Society Ltd* [1943] Ch 167.

- *Galaxy Electronics Pty Limited v Sega Enterprises Limited* (1997) 75 FCR 8

- *Hyperion Records Limited v Sawkins* [2005] EWCA Civ 565.

- *IFPI v. Anon* (Local Court of Cottbus, Germany, 95 Ds 1653 Js 15556/04).

- *IFPI v. Anon (Unreported, Feurth, Germany).*

- *IFPI v. Baidu* (see Chinaview.com, *"Baidu loses first round of copyright dispute"*, Chinaview.com, 20 September 2005, located at http://news.xinhuanet.com/english/2005-09/20/content_3515251.htm) (accessed on 23 September 2008).

- *IFPI v. Kuro* (*Rock Records (Taiwan) Co. Ltd et al. v. Fashion-Now Co., Ltd.,* 92.

- *Internaional Federation of the Phonographic Industry v. Bruvik* (Lillehammer City Court, Norway, 2003).

- *Japanese Society for the Rights of Authors, Composers and Publishers (JASRAC) v. Japan MMO* (Tokyo District Court, Japan, 2003) (Tokyo High Court, Japan, 2005).

- *Jennings v Stephens* [1936] Ch 469.

- *Kabushiki Kaisha Sony Computer Entertainment v. Stevens* [2001] FCA 1379; [2002] FCA 906; [2003] FCAFC 157; [2005] HCA 58.

- *KaZaA B.V. v. Vereniging Buma and Stichting Stemra* (Amsterdam District Court Netherlands, 2001 reversed on appeal in the Appeals Court Netherlands, 2002) (Cause List Number 1370/01 SKG) (Netherlands Supreme Court affirmed Appeals Court decision, 2005).

- *Koda, et al. v. Anon.* (VL B-1943-99 and VL B-2089-99 Western High Court, Denmark, 2001).

- *Metro Goldwyn Mayer Studios Inc. v. Morpheus, Grokster and KaZaA* 380 F.3d 1154 (9th Cir.), certiorari granted, 125 S. Ct. 686 (2004); No. 01-CV-8541 SVW (C.D.Cal. 2001); 243 F.Supp.2d 1073 (C.D.CA 2003); 259 F.Supp. 2d 1029 (C.D.CA 2003); 125 S. Ct 2764 (2005).

- *Microsoft v Business Boost* (2000) 49 IPR 573.

- *Moorhouse and Angus & Robertson (Publishers) Pty Ltd v. University of NSW* (1974) 23 FLR 112.

- *Recording Industry Association of America v Diamond Multimedia Systems* (Diamond I) 29 F. Supp.2d 624 at 632 (C.D. Cal. 1998); *RIAA v Diamond Multimedia Systems* (Diamond II), 180 F.3d 1072 (9th Cir. 1999).

- *Recording Industry Association of America v Verizon Internet Services, Inc.*, 2003 U.S. App. LEXIS 25735 vacating and remanding 240 F. Supp. 2d 24 (D.D.C. 2003); CA 02-MS-0323 (D.D.C. 2002); Certiorari by RIAA refused by US Supreme Court dated 24 May 2004.

- *Recording Industry Association of America v. Aimster* 2001 U.S. Dist. LEXIS 19135; 334 F.3d 643 (7th Cir. 2003).

- *Recording Industry Association of America v. Audiogalaxy* S.D.N.Y., 02CV-3999 (2002).

- *Recording Industry Association of America v. Brianna LaHara* (Unreported settled out of court).

- *Recording Industry Association of America v. iMesh* US SD New York 03CV7339.

- *Recording Industry Association of America v. Jeffrey Gerard Levy* (D. Or. 1999).

- *Recording Industry Association of America v. Jesse Jordan, Joseph Nievelt, Daniel Peng and Aaron Sherman* [collectively known as *Atlantic Recording Corp v. Jordan,* No. 03-CV-0417 (N.D. N.Y. 2003); *Atlantic Recording Corp. v. Nievelt,* No. 2:03CV0064 (W.D. Mich. 2003); *Atlantic Recording Corp. v. Peng,* No. 03-1441 (D. N.J. 2003); *Atlantic Recording Corp. v. Sherman,* No. 03-CV-01416 (N.D. N.Y. 2003)].

- *Recording Industry Association of America v. MP3.com* 2000 U.S. Dist. LEXIS 5761 (S.D.N.Y. 2000).

- *Recording Industry Association of America v. Scott Wickberg* (D.Ok. 2000).

- *Recording Industry Association of Korea v. Soribada* No. 8869 (SDPP S. 2001).

- *Sawkins v Hyperion Records Limited* [2004] EWHC 1530 (Ch).

- *Sega Enterprises Limited v Galaxy Electronics Pty Limited* (1996) 65 FCR 268.

- *Sony Corporation of America v. Universal City Studios, Inc.* 464 U.S. 417 (1984).

- *Sony Music Entertainment (Australia) Ltd & Ors v. The University of Tasmania & Ors* [2003] FCA 532; [2003] FCA 724; [2003] FCA 805; [2003] FCA 929.

- *Sony Music Entertainment (Hong Kong) & ors v Chinamp3.com* (see *IFPI Digital Music Report 2006* located at http://www.ifpi.org/content/library/digital-music-report-2006.pdf) (accessed on 29 December 2006).

- *Telstra v APRA* (1993) 26 FCR 131; (1997) 191 CLR 140; (1997) 38 IPR 294.

- *The Finnish Group of IFPI v. Anon* (District Court. of Jyvaskyla, Finland, 2002).

- *Tsai Chueng* No*. 20 (Taipei Dist. Ct., injunction issued Dec. 1, 2003); See also Fashion-Now Co., Ltd. et al.,* 92 Sue Tze No. 2146 (Taipei District Ct*., criminal indictment issued Dec. 1, 20*03); *Interim Application of Fashion-Now Co., Ltd*, 92 Sue Tze No. 2146 (Taipei Dist. *Ct., filed Aug. 31, 2004).*

- *Twentieth Century Fox v. Scour Inc* No. 00-5385 (S.D.N.Y. filed June 20, 2000).

- *Universal City Studios, Inc. v. Reimerdes,* 111 F. Supp. 2d 294, 55 U.S.P.Q.2D (BNA) 1873 (S.D.N.Y.) (2000).

- *Universal Music Australia Pty Ltd & Ors v. Cooper & Ors* [2004] FCA 78 (13 February 2004); [2005] FCA 972 (14 July 2005); [2005] FCA 1878 (22 December 2005); [2006] FCA 642 (29 May 2006); [2006] FCAFC 187 (18 December 2006).

- *Universal Music Australia Pty Ltd & Ors v. Sharman Licence Holdings Ltd & Ors* [2005] FCA 1242 (5 September 2005); [2006] FCAFC 41 (23 March 2006).

- *Universal Music Group Recordings, Inc. v. MP3.com, Inc* No. 00 Civ. 0472 (S.D.N.Y. filed Jan. 21, 2000); 92 F. Supp. 2d 349 (S.D.N.Y. 2000).

- *University of London Press Ltd v. University Tutorial Press Ltd* [1916] 2 Ch. 607.

- *University of NSW v. Moorehouse and Angus & Robertson (Publishers) Pty Ltd* (1975) 133 CLR 1.

- *Warner Music Australia & Ors v. Swiftel Communications Pty Ltd & Ors* [2005] FMCA 627 (16 March 2005); (No.2)[2005] FMCA 706 (20 May 2005); [2005] FCA 1127 (16 August 2005).

- *WEA International Inc v. Hanimex Corp Ltd* (1987) 17 FCR 274.

- *Woolworths Ltd v Olsen & Anor* (2004) 63 IPR 258.

LEGISLATION

UK Legislation

- *Statute of Anne 1709.*

US Legislation

- *Audio Home Recording Act 1992.*

- *Digital Millennium Copyright Act 1998.*

- *US Copyright Act 1976.*

Australian Legislation

- *Commonwealth of Australia Constitution 1900 (Cth).*
- *Copyright (Digital Agenda) Amendment Act 2000 (Cth).*
- *Copyright (Moral Rights) Amendment Act 2000 (Cth).*
- *Copyright Act 1968 (Cth).*
- *Copyright Amendment Act 2006 (Cth).*
- *Copyright Legislation Amendment Act 2004 (Cth).*
- *US Free Trade Agreement Implementation Act 2004 (Cth).*

PAPERS

- *Copyright Convergence Group, "Highways to Change - Copyright in the new communications environment"; Copyright Reform and the Digital Agenda (Proposed Transmission Right, Right of Making Available and Enforcement Measures) Commonwealth Discussion Paper, March 1998.*
- *Department of Foreign Affairs and Trade Side Letter 1 between the US and Australian Governments dated 18 May 2004.*
- *Issues Paper on "An examination of fair use, fair dealing and other exceptions in the Digital Age", May 2005.*
- *Middleton, G., "Copyright Conundrum – Liability of ISPs for Online Copyright Infringement", Australian Computer Society, Inc. This paper appeared at the Australasian Information Security Workshop 2005, Newcastle, Australia. Conferences in Research and Practice in Information Technology, Vol. 4.*

TREATIES AND BI-LATERAL AGREEMENTS

- *Australia-US Free Trade Agreement 2004.*
- *Berne Convention for the Protection of Literary and Artistic Works 1886.*
- *WIPO Copyright Treaty 1996.*
- *WIPO Performances and Phonograms Treaty 1996.*

COMPANY AND INDUSTRY REPORTS

- *Apple Inc. 3rd Quarter 2007 Unaudited Summary Data, 25 July 2007.*
- *ARIA, Australian Record Sales – 2006 Full Year Results Report.*
- *BMG Annual Report 2004.*
- *BMG Annual Report 2007.*
- *EMI Annual Report 2008.*
- *IFPI's Digital Music Report 2004.*
- *IFPI's Digital Music Report 2005.*
- *IFPI"s Digital Music Report 2006.*
- *IFPI"s Digital Music Report 2008.*
- *IFPI's Digital Music Report 2009.*
- *IFPI's Interim Projections 2005.*
- *IFPI's Recorded Music Sales 2007.*
- *IFPI's The Recording Industries World Sales Report 2005.*
- *IFPI's The Recording Industry's Commercial Piracy Report 2005.*
- *IFPI's The Recording Industry's Commercial Piracy Report 2006.*
- *Sony Corporation Annual Report 2005.*
- *Sony Corporation Annual Report 2008.*
- *Time Warner Annual Report 2003.*
- *Universal Music Group Annual Report 2008.*
- *Vivendi Universal Annual Report 2008.*
- *Vivendi Universal Financial Report Form 20-F 2004.*
- *Warner Music Group Annual Report to 31 March 2008.*

GOVERNMENT REPORTS AND RECORDINGS

- *138 US CONGRESS RECORDING H9029-01 at 9043 (daily edition September 22, 1992).*
- *Digital Agenda Review Report released by the Attorney General's Department 28 April 2004.*
- *House of Representatives Standing Committee on Legal and Constitutional Affairs Report on Review of technological protection measures exceptions released on 1 March 2006.*
- *Second Reading Speech on the Introduction of the US Free Trade Agreement Implementation Bill 2004, presented by the Trade Minister Mark Vaile, 23 June 2004.*
- *USPTO, "Technological Protection Systems for Digitized Copyrighted Works: A Report to Congress" 20 May 2003.*

PRESS RELEASES, SUBMISSIONS, EXPLANATORY MEMORANDA AND FACT SHEETS

- *Apple Press Release, "Apple Sells One Million iPhone 3Gs in First Weekend", Apple Inc., 14 July 2008, located at http://www.apple.com/pr/library/2008/07/14iphone.html (accessed on 8 August 2008).*
- *Apple Press Release, "Apple Sells One Million iPhone 3Gs in First Weekend", Apple Inc., 14 July 2008.*
- *Attorney General's Department Fact Sheet: TPM Liability Scheme.*
- *Attorney-General's Department e-News on Copyright, "Government examines 'fair use' of copyright material", Issue 36, June 2005.*
- *Attorney-General's Department Fact Sheet Limitations on Remedies for Copyright Infringement against Carriage Service Providers.*
- *Attorney-General's Department Fact Sheet Overview of Copyright Amendment (Digital Agenda) Act 2000.*
- *Attorney-General's Department Fact Sheet: US Free Trade Agreement Implementation Act 2004 Right To Reproduce/Copy Exception for the normal use of Copyright Material.*
- *Australian Consumers' Association (ACA), "Response to the Attorney-General's Department Issues Paper Fair Use and Other Copyright Exceptions An examination of fair use, fair dealing and other exceptions in the Digital Age, May 2005."*
- *Australian Copyright Council Information Sheet G087v.01 Access to copyright material in Australia and the US, September 2004.*

- *EMI Group Limited, "EMI Music launches DRM-free superior sound quality downloads across its entire digital repertoire. Apple's iTunes store to be the first online music store to sell EMI's new downloads", Press Release, London, 2 April 2007.*

- *Explanatory Memorandum to Digital Agenda Bill 2000.*

- *House of Representatives Standing Committee on Legal and Constitutional Affairs Media Release on 1 March 2006.*

- *Internet Industry Association Media Release, "IIA Copyright Code to be Finalised", dated 19 May 2005.*

- *Press Release from IFPI "Global music retail sales, including digital, flat in 2004", 22 March 2005.*

- *Press Release from IFPI, "IFPI and BPI take action against Jetgroove.com", 14 October 2004.*

- *Press Release from IFPI, "Puretunes.com Settles Record Companies' Copyright Infringement Lawsuit", 25 October 2004.*

- *Press Release from IFPI, "IFPI releases definitive statistics on global market for recorded music", 2 August 2005.*

- *Screenrights', "Response to the Attorney-General's Fair Use and Other Copyright Exceptions Issues Paper July 2005", 8 July 2005.*

- *Sony Corporation of America Press Release, "Sony Music Entertainment and BMG unite to create Sony BMG Music Entertainment", 5 August 2004.*

- *Submissions to the Senate Select Committee on the Free Trade Agreement between Australia and the United States of America from the Internet Industry Association, 2004; Electronic Frontiers Australia, 2004 and Australian Digital Alliance, 2004.*

- *The Attorney-General's Department, Press Release 088/2006, "Major Copyright Reforms Strike Balance", 4 May 2006.*

- *Warner Music Group Press Release, "Investor Group Led By Thomas H. Lee Partners, Edgar Bronfman, Jr., Bain Capital And Providence Equity Partners Completes Purchase Of Warner Music Group From Time Warner."*

OTHER MEDIA SOURCES

- *Fitzgerald, B., and Coroneos, P., "Discuss the Copyright Amendment Bill 2006 (Cth)", Podcast from QUT on 22 November 2006, located at http://www.ip.qut.edu.au/node/42 (accessed on 15 January 2007).*

ONLINE GENERAL SOURCES

- *Caslon Analytics located at http://www.caslon.com.au.*
- *How Stuff Works located at http://www.howstuffworks.com*
- *Webopedia located at http://www.webopedia.com.*