

**THE AMBIVALENCES OF PIRACY:
BITTORRENT MEDIA PIRACY AND ANTI-CAPITALISM**

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ABSTRACT

This thesis argues that a more nuanced study of online media piracy is necessary in order to augment the dominant focus on piracy's relationship to copyright. Copyright as a frame for understanding piracy's relationship to capitalism has left potentially more crucial areas of study neglected. An approach to understanding the relationship of media piracy to anticapitalist projects must engage with forms of media piracy in their specificity and not as a homogeneous field. The thesis argues that it is possible and necessary to push beyond the constraints of copyright activism and intellectual property and in so doing opens up new areas of inquiry into online media piracy's potential to challenge logics of property and commodification.

Original research is presented in the form of a highly detailed description and analysis of private BitTorrent filesharing sites. These sites are secretive and yet to receive scholarly attention in such a detailed and systematic way. This research finds both public and private variants of BitTorrent media piracy to be highly ambivalent with regards to their transformative potentials in relation to capital and thus tempers more extreme views of piracy as wholly revolutionary and emancipatory, and those that see pirate as a 'simple' form of theft.

Public and private BitTorrent filesharing are theorised through the lens of Autonomist Marxism, a perspective that has a novel view of technology both as a tool of domination and a force for potential emancipation. Piracy is analysed for its capacity to refuse the valorisation of the enjoyment of music or film via the surveillance and tracking of audiences, which has become typical for contemporary legal online distribution venues. The thesis further analyses BitTorrent piracy's relationship to the 'common', the shared capacities for creating knowledge, ideas, affects .

The thesis concludes that further scholarly research must move beyond concerns for creators' remuneration and its focus on reforming existing copyright policy and instead engage with the emergent institutional structures of organised media piracy. Though publicly accessible BitTorrent piracy has contributed to a broadening of awareness about issues of access to information, such an awareness often leaves in place logics of private property and capitalist accumulation. Finally, the thesis argues that the richness and complexity of private sites' organisational valences carry with them greater potential for radically destabilising capitalist social relations with regard to the distribution of cultural production.

TABLE OF CONTENTS

INTELLECTUAL PROPERTY AND PUBLICATION STATEMENTS.....	ii
ACKNOWLEDGEMENTS.....	iii
ABSTRACT.....	iv
TABLE OF CONTENTS.....	v
INDEX OF TABLES.....	vii
CHAPTER ONE: INTRODUCTION.....	1
<i>CONTEXT.....</i>	<i>3</i>
<i>Responses to Piracy.....</i>	<i>7</i>
<i>AGAINST COPYRIGHT.....</i>	<i>13</i>
<i>ON THE ROLE OF CREATORS.....</i>	<i>14</i>
<i>AGAINST PRESUPPOSITIONS.....</i>	<i>17</i>
<i>STRUCTURE.....</i>	<i>19</i>
<i>Ethnography and Description.....</i>	<i>19</i>
<i>Theorising BitTorrent Media Piracy: Autonomist Marxism.....</i>	<i>28</i>
CHAPTER TWO: THE BITTORRENT PROTOCOL.....	35
<i>INTRODUCTION.....</i>	<i>35</i>
<i>BITTORRENT.....</i>	<i>35</i>
<i>BITTORRENT USAGE.....</i>	<i>37</i>
<i>TECHNICALITIES.....</i>	<i>40</i>
<i>TRACKERS.....</i>	<i>42</i>
<i>SEEDERS AND LEECHERS.....</i>	<i>44</i>
<i>CONCLUSION.....</i>	<i>46</i>
CHAPTER THREE: PUBLIC BITTORRENT SITES.....	48
<i>INTRODUCTION.....</i>	<i>48</i>
<i>SEARCHING.....</i>	<i>49</i>
<i>SELF-POLICING AND COMMENTS.....</i>	<i>58</i>
<i>FUNDING/ADVERTISING.....</i>	<i>63</i>
<i>CONCLUSION.....</i>	<i>66</i>
CHAPTER FOUR: PRIVATE BITTORRENT SITES, BECOMING A MEMBER.....	69
<i>INTRODUCTION.....</i>	<i>69</i>
<i>INVITATIONS.....</i>	<i>72</i>
<i>Invite Selling and Trading.....</i>	<i>75</i>
<i>APPLYING.....</i>	<i>84</i>
<i>INTERVIEWING.....</i>	<i>89</i>
<i>SITE F Interview Preparation.....</i>	<i>92</i>
<i>The SITE F Interview.....</i>	<i>96</i>
<i>OPEN SIGNUP.....</i>	<i>100</i>
<i>CONCLUSION.....</i>	<i>102</i>
CHAPTER FIVE: PRIVATE BITTORRENT SITES, ENCLOSURE AND CIRCULATION.....	104
<i>INTRODUCTION.....</i>	<i>104</i>
<i>RATIO.....</i>	<i>106</i>
<i>Ratio Requirements.....</i>	<i>108</i>
<i>Ratio Strategies.....</i>	<i>113</i>
<i>Seedboxes.....</i>	<i>121</i>
<i>USER CLASSES.....</i>	<i>125</i>
<i>Forums.....</i>	<i>130</i>
<i>Lists.....</i>	<i>132</i>
<i>Wiki Pages.....</i>	<i>134</i>

<i>Collages</i>	134
POWER STRUCTURE	136
<i>Special Statuses</i>	137
<i>Moderators and Forum Rules</i>	138
<i>Administrators and Systems Operators</i>	145
FUNDING	148
SEARCHING AND FINDING	162
<i>Torrent and Artist Pages</i>	164
<i>Sample SITE F Artist Page: Led Zeppelin</i>	166
CONCLUSION	171
CHAPTER SIX: PIRACY AND THE POLITICS OF REFUSAL	174
INTRODUCTION	174
<i>THE CELESTIAL JUKEBOX BECOMES REALITY</i>	178
<i>AUDIENCE COMMODITY</i>	190
<i>THE SOCIAL FACTORY</i>	195
<i>IMMATERIAL LABOUR</i>	198
REFUSAL	202
CONCLUSION	211
CHAPTER SEVEN: PIRACY AND THE COMMON	213
INTRODUCTION	213
<i>THE COMMON AND CAPITAL</i>	216
<i>THE NATURAL AND THE VIRTUAL COMMONS</i>	220
<i>THE COMMON AND THE LIMITS TO THOUGHT</i>	225
<i>MEDIA COMMONS</i>	229
INSTITUTIONS	232
<i>THE PIRATE COMMON</i>	235
CONCLUSION	253
CHAPTER EIGHT: CONCLUSION	255
PRAGMATICS	260
<i>PIRACY AND SCHOLARLY RESEARCH</i>	261
RADICALITIES	262
BIBLIOGRAPHY	266

INDEX OF TABLES

<i>Table 5-1. SITE G, Ratio Requirements.....</i>	109
<i>Table 5-2. SITE E, Ratio Requirements.....</i>	109
<i>Table 5-3. SITE F, Ratio Requirements.....</i>	110
<i>Table 5-4. SITE E, User Classes.....</i>	125
<i>Table 5-5. SITE B, User Classes.....</i>	126
<i>Table 5-6. SITE F, User Classes.....</i>	127
<i>Table 5-7. SITE F, User Class Distribution.....</i>	128
<i>Table 5-8. SITE F, donations, percentage of each user class.....</i>	152

CHAPTER ONE: INTRODUCTION

This thesis argues that a more nuanced study of online media piracy is necessary in order to augment the dominant focus on piracy's relationship to copyright because this dominance has left other potentially more crucial areas of study neglected. In particular, the thesis argues that an approach to understanding the relationship of media piracy to anticapitalist projects must engage with forms of media piracy in their specificity and not as a homogeneous field of action. By looking to specific forms of media piracy I argue that it is possible and necessary to push beyond the narrow constraints of copyright activism and intellectual property discourse. In so doing, this thesis opens up new areas of inquiry into online media piracy's challenges to regimes of property and commodification; it also reveals the ways in which piracy reinforces these very same disempowering elements of contemporary neoliberal capitalism.

The thesis examines both publicly accessible and private 'members-only' websites used for finding sharing media using the BitTorrent filesharing protocol. These are important sites of analysis because they represent the primary and most visible means by which Internet users engage in media piracy using peer-to-peer technology. Public BitTorrent search indexes are largely accessible by anyone with an Internet connection and they offer searchable databases of movies, music, software, and books. Private sites, in contrast, are closed to those who have not met certain strict and specific criteria for entry; those who do attain membership gain access to catalogues of media that are at times larger, more diverse, and more easily attainable than those which are found on public sites. But, in order to maintain access to these catalogues members must abide by strict rules that govern what can be shared, how they are to behave in discussion forums. Crucially, members are also required to upload a certain amount of what they have downloaded through their association with the site. The thesis mounts an immanent critique of the capacities of these two variants of BitTorrent filesharing to reappropriate cultural production from capital and argues that each variant simultaneously subverts and supports capitalist logics of private accumulation, commodification, exclusion, hierarchy, and competition. Public and private BitTorrent piracy is shown to be highly ambivalent with regards to anti-capitalist projects of emancipation. Because piracy is an ambivalent phenomenon, the thesis warns that we should be wary of discourses that overly celebrate piracy as a revolutionary force of emancipation and of discourses that see piracy as a wholly negative phenomenon for

capital.

On the one hand, public BitTorrent sites are shown to be highly adept at freeing cultural production in its digital form from its status as commodities. As they are freely accessible sites, Internet users are able to obtain media for free that would otherwise be obtainable only through a relationship of commodity exchange: money in exchange for media. The challenges to intellectual property within this scenario are immense, since downloading media for free results in no remuneration for creators and rights holders. This reappropriation of cultural production sees the emergence of a digital cultural common that has forcibly extracted media from commodity relations, and placed it within common reach. On the other hand, public sites, largely because of their accessibility, are vulnerable to debasement of this nascent cultural common. Media of poor technical quality circulates alongside that of high; corrupt and 'fake' media files, often planted by anti-piracy organisations litter these networks. In order to fund their operations, public sites turn to advertising as a primary source for generating revenue and sometimes profits. I argue that even though these sites may not always be profitable entities, they reinscribe the commodification of audiences, which is also the same strategy employed by legal online distribution as a primary site for the generation of surplus value.

Private sites are largely concerned to combat the potential debasement of the emergent digital media common by instituting social and technological 'safeguards' against corruption. In order to become a member at a private site, users are typically vetted by way of an interview, application, or via invitation by another member in good standing. Site administrators place a high priority on technically adept members who demonstrate a commitment to the ideals of contribution and sharing, not just to downloading. Members at private sites are engaged in continual process of mutual surveillance as they curate the media catalogue, flagging media that infringes site rules regarding quality and type, and reporting rule-breaking members. Members must also adhere to rules that determine how much they are required to share back to the site lest they suffer the loss of downloading privileges and sometimes the loss of their membership. Private sites generally reject the use of advertising and instead rely on voluntary cash contributions from their members, which often finds the sites running at a deficit. In turn, certain sites engage in creative ways to incentivise the membership to donate by offering them immunity from rules, additional credit to be used toward downloading, and even merchandise. As a result, the catalogue of media that is available

through private sites is large, diverse, continuously available, and usually of very high technical quality. However, the rules and regulations at private sites are augmented with a hierarchy of user classes (another form of incentive) and site administrators that are beyond criticism. What emerges are 'walled gardens' of exclusive media access. It is a highly competitive environment in which members are constantly monitored for 'correct' behaviour, and in which the spoils of downloading without risk of losing one's account usually go to those who have the ability to donate money or pay for high speed internet connections or other technologies that enhance their abilities to share back to the site. In this way, private sites reinscribe many of the more problematic aspects of contemporary neoliberal capitalism related to exclusion, competition, technological surveillance, and inequalities in access to wealth.

CONTEXT

Online music piracy has, for some time, frustrated the commercial recorded music industry in its efforts to continue profiting from its traditional role as the primary producer and distributor of copyrighted content. Prior to the widespread adoption of the Internet and peer-to-peer technologies, the ability of listeners to access recorded music was largely dominated by a complex framework of record labels, distribution arrangements, transnational media companies, and corporate and independent record stores.¹ Since the late 1990s this framework and its various technological, juridical, financial, and social relations seem to have been challenged directly by (former) customers themselves and their online activities. In the late 1990s and early 2000s the availability of low-cost compact disc 'burners' for home use meshed with the emergence of peer-to-peer filesharing technologies to make it possible for listeners to share their music collections and customise their music listening experiences on a scale never before experienced. The opportunity to access a broad selection of music seemed to (re)awaken a desire to continue and expand sharing practices. These are practices that in the realm of recorded music traced their history at least to the phenomenon of 'home taping' from the late 1960s onward.

As is well known, Napster was among the first wave of peer-to-peer music filesharing technologies. Peer-to-peer networks are 'overlay networks on top of existing Internet infrastructure under a distributed model, where the content, repositories and

¹ Patrick Burkart and Tom McCourt, *Digital Music Wars: Ownership and Control of the Celestial Jukebox* (Lanham: Rowman & Littlefield Publishers, 2006).

distribution resources are supplied by the members of the P2P community, acting both as a consumer and as a provider'.² In essence, peer-to-peer means that users of the Internet are themselves responsible for sharing information among one another, usually with no single source for the information or data. Though peer-to-peer networks can be used to transmit any type of data, since the rise of Napster, it has become a generic term used to refer to networks of connected personal computers that are using software expressly designed for the purpose of sharing digital media. Moreover, the term has also come to commonly refer to the sharing of copyright-infringing digital media. Napster was seen as the first great 'killer application' of the commercially accessible Internet and attracted millions of Internet users hungry for freely available and instantly accessible music.³ It also attracted the ire of the recorded music industry which, echoing its earlier admonishment of home taping in the 1970s, declared peer-to-peer filesharing technologies to be the single greatest threat to its potential to profit from its monopoly over the production, distribution, and marketing of music.

Internet users rushed en masse to use these new music sharing tools. In so doing, a drastic shift in the possibilities for music distribution in the Internet era was ushered in because it soon became clear that anyone with a home network connection could, and often did, distribute music freely. Concomitantly, how listeners viewed their relationship to the music they consumed and those involved in its production and distribution was also undergoing significant changes. For peer-to-peer users music could be experienced immediately, often in advance of an official release date, and could be obtained without first engaging with the 'middle man' of the record store, the marketing firm, or even the record label.⁴ Questions thus arose about the necessity of the traditional recorded music distribution infrastructure because, to peer-to-peer users, the notion of centralised, for-profit, distribution in the form of physical CDs and brick-and-mortar shops seemed inefficient and old fashioned. Mass filesharing became linked to the idea that a post-scarcity revolutionary information era was upon us.⁵ It was to be an era in which media

² Carlos Macián and Jorge Infante, 'The Tragedy of the Commons Vs P2P Success: An Analysis of the Conditions for Cooperative Sustainability in the File-sharing World', 2008 <www.canavents.com/its2008/abstracts/249.pdf>.

³ Burkart and McCourt, *Digital Music Wars*, p. 55.

⁴ Steve Jones, 'Music and the Internet', *Popular Music*, 19 (2000), 217–230.

⁵ See, for example, Adam Cohen, 'Napster the Revolution', *CNN*, 2000 <<http://www.cnn.com/ALLPOLITICS/time/2000/10/02/revolution.html>> [accessed 29 February 2012]; 'The Real Reason Napster Is Revolutionary', *ElegantHack*, 2000 <<http://www.eleganthack.com/?p=90>> [accessed 29 February 2012]; 'So Long, Napster, and Thank You for Revolutionizing the Music Business', *FilePlaza* <http://www.fileplaza.com/news/internet/so_long_napster_and_thank_you_for_revolutionizing_the_music_business/> [accessed 29 February 2012].

would be circulated for free, without regard for profit, and would be universally accessible to all. It would cut out the parasitic record industry and liberate listeners and artists alike.

Mass filesharing also became discursively linked, largely through industry propaganda, to a form of theft.⁶ It has been a long running mantra of the music industry that each file downloaded for free is representative of a single lost sale. The fallacy of this perspective has many times been pointed out: a digital file is a copy, if I steal a CD, there is one less for you to sell, if I copy a digital file, nothing is lost in the process.⁷ In response to what the industry perceived as the growing threat of online media piracy, a series of lawsuits against the providers of peer-to-peer software ensued. Since Napster's greatest technical weakness was that, although individual end users were sharing files among one another, the database of available files and who had them was centrally administered and stored on Napster's servers. As a result the company was easily shut down, which is indeed what happened in late 2001. In the wake of its demise Napster left a listening public clearly enthused with the idea of swapping songs for free, without regard or respect for the legality of doing so. Learning from Napster's mistake, other technologies that were less centralised emerged to the gap left by Napster's demise. The ease and rapidity with which Internet users adopted each new iteration of peer-to-peer technology combined with the seeming ineffectiveness of industry lawsuits, which continues after Napster's demise, gave birth to the idea that stopping piracy was impossible, and that the free flow of music was the new reality.

'With the Napster case' notes Joe Karaganis, 'the music industry proved that it could crush institutional competitors, but not control the Internet itself. The new P2P services learned from Napster's vulnerability and adopted fully decentralized network models that distanced network owners from responsibilities'.⁸ By the mid 2000s a newer, more sophisticated, and ultimately more resilient peer-to-peer technology called BitTorrent was taken up by a number of filesharers. Where 'first wave' peer-to-peer

⁶ 'RIAA', *Recording Industry Association of America* <http://www.riaa.com/physicalpiracy.php?content_selector=piracy_details_online> [accessed 29 February 2012]; Greg Sandoval, 'Biden to File Sharers: "Piracy Is Theft"', *CNET*, 22 June 2010 <http://news.cnet.com/8301-31001_3-20008432-261.html> [accessed 29 February 2012].

⁷ Felix Oberholzer-Gee and Koleman Strumpf, 'The Effect of File Sharing on Record Sales: An Empirical Analysis', *Journal of Political Economy*, 115 (2007), 1-42; Daniel Gross, 'Does a Free Download Equal a Lost Sale?', *The New York Times*, 21 November 2004, section Business / Your Money <<http://www.nytimes.com/2004/11/21/business/yourmoney/21view.html>> [accessed 29 February 2012].

⁸ Joe Karaganis, 'The Ecology of Control: Filters, Digital Rights Management, and Trusted Computing', in *Structures of Participation in Digital Culture*, ed. by Joe Karaganis (Social Science Research, 2008), pp. 256-277 (p. 263).

technologies such as Napster or Audiogalaxy were well-suited for transferring single songs, which are usually small files, they were not particularly useful for transferring larger files, such as full albums or films. Where BitTorrent excels is that it is ideally suited for transferring large media files. The ramifications of this technological development were soon felt by the movie industry as BitTorrent users began swapping movies (in addition to, now, entire discographies) amongst each other. As a fully decentralised network with no single software provider, BitTorrent has proven to be very resilient against the efforts of the industry to stem the flow of copyright-infringing content on BitTorrent networks.

Paralleling these developments in filesharing were deep concerns about what role, if any, was to be played by copyright and intellectual property. Traditional copyright arrangements, which seemed to many to be at best suited (if they ever were) to an era in which access to cultural production was limited by scarcity in the supply chain, appeared unsuitable for an era in which perfect digital reproductions of recorded music could be instantaneously transferred around the globe. But such arrangements, combined with the near monopoly of the recorded music industry on production, distribution, and marketing of recorded music, had long been a primary source of industry profit. In response to the perceived threat of changes to a highly profitable copyright regime, the global media industries have waged a multifaceted campaign—now entering its second decade—to combat the sharing of copyrighted material without authorisation and/or payment. Developments in peer-to-peer have thus moved in lock step with the intensification of strategies meant to curtail the illegal distribution of copyrighted material online. As peer-to-peer technologies have become more sophisticated, industry strategies to stem the tide of piracy ‘began the twenty-first century by devoting increasingly scarce revenues to propaganda, spin, and litigation in a sustained effort to browbeat and threaten young people—still its best customers—into compliance with new copyright laws that favor the industry’.⁹ This sustained effort has included strategies that range from moral appeals to listeners, the implementation of technological barriers to use, lobbying efforts to implement restrictive national and transnational intellectual property policies, and lawsuits against companies and individuals. And all of these, problematically, are framed in highly militaristic terms: industry uses ‘weapons’ in the ‘battle’ against piracy, which is a ‘threat’ and a ‘clear and

⁹ Patrick Burkart, *Music and Cyberliberties* (Wesleyan, 2010), p. 18.

present danger to the survival of the mainstream musical economy'.¹⁰

Responses to Piracy

One of the media industries' strategies in battling piracy has been to employ moral and ethical appeals to media consumers. Among famous examples are the presentation of trailers in cinemas that ask such provocative questions like 'you wouldn't steal a handbag?' in an attempt to conflate, in the minds of viewers, peer-to-peer filesharing and physical theft. Another trailer features members of the media industries supporting staff—lighting technicians, production assistants, rigging workers, and so forth—noting that without the for profit media industries they would be left jobless. Industry groups such as the Recording Industry Association of American (RIAA) have published materials for use in elementary schools that aim to educate young people and parents about the dangers of filesharing. These dangers include the potential for viruses, the unintended viewing of pornography, and the ethical concerns surrounding copyright law and media piracy.¹¹ Such strategies have often met with derision amongst the wider Internet public who describe these campaigns as 'propaganda' and find delight in lampooning the content of the various anti-piracy advertisements, instructional videos, and websites.¹²

Another important aspect of the media industries' strategies against piracy has been to develop technological implements to prevent, track, monitor, and corrupt copying. The most well-known of these is Digital Rights Management (DRM), in which media files are embedded with information that limits their use to particular devices, prevents copying, or, in the case of the Sony 'rootkit' fiasco, installs software on users' computers without their consent. DRM has proven to be 'disorganized and mostly unsuccessful', and the music industry has largely abandoned this strategy, though movie

¹⁰ Andrew Leyshon and others, 'On the Reproduction of the Musical Economy After the Internet', *Media, Culture & Society*, 27 (2005), 177–209.

¹¹ Tarleton Gillespie, 'Characterizing Copyright in the Classroom: The Cultural Work of Antipiracy Campaigns', *Communication, Culture & Critique*, 2 (2009), 274–318.

¹² Numerous satirical videos and images that lampoon industry rhetoric about piracy circulate online. 'When You Download Music, You Are Downloading Communism', is a popular image that features a youth in front of a computer, behind him a monstrous figure (a communist, one supposes) lurks. See Dan Brooks, 'Who's Making Money from Music Piracy?', *Combat!*, 2009 <<http://combatblog.net/?p=146>> [accessed 29 February 2012]. A video featuring the popular comic actor Jack Black sees the actor, apparently in earnest, likening 'super-mega rockstars' to members of the working class. He alleges that 'pirates' steal the 'Internets' by breaking into entertainers homes. He then instructs the viewer that 'no cash means no inspiration'. See *TENACIOUS D - Jack Black on Piracy* (New Line Productions, 2006) <<https://www.youtube.com/watch?v=-LkWKvMCzqA>> [accessed 29 February 2012].

and software industries continue to employ some forms of DRM.¹³ There are other technological strategies too. Deep Packet Inspection (DPI), though not employed directly by the movie, music, or software industries, is used by Internet Service Providers (ISPs) as a means to curtail certain activities on their networks. DPI allows ISPs to determine the type of data that is being transferred over their networks in order to slow its transfer in a practice known as ‘throttling’, or eliminate it entirely, which is characteristic of many university and other institutional intranets. It is typical now for ISPs to throttle BitTorrent content and for many universities to disable student and staff access to the Internet should they be found to be using peer-to-peer technologies on campus computers or on laptops connected to campus networks.¹⁴ DPI also has important ramifications for civil liberties. The Communications Assistance for Law Enforcement Act (CALEA), which was passed in the US in 1994, was updated in 2004 to require that by 2007 broadband Internet connections and Voice Over IP were equally accessible to law enforcement surveillance. The requirement that ISPs modify equipment in order to comply with the act has meant that they can also surveil and ‘shape’ the traffic that passes through their networks.¹⁵

Lobbying to influence policy has been high on the agenda of media industries for decades, and has hit a fever pitch in the post-Napster era of online media piracy. The US RIAA and Motion Picture Association of America (MPAA), the Canadian Recording Industry Association (CRIA, the International Association of Phonographic Industries (IFPI), the Dutch Bescherming Rechten Entertainment Industrie Nederland (BREIN) are just some of the more visible national and transnational industry associations that have put pressure on governments to implement ever more restrictive intellectual

¹³ Karaganis, pp. 256–277 (p. 264); Burkart, pp. 16–17; Cory Doctorow, ‘Microsoft Research DRM Talk’, *Craphound*, 2004 <<http://craphound.com/msfdrm.txt>> [accessed 29 February 2012]; David Berlind, ‘Sony Offers Removal and Replacement for Rootkit DRM’, *ZDNet*, 3 November 2005 <<http://www.zdnet.com/blog/btl/sony-offers-removal-and-replacement-for-rootkit-drm/2112>> [accessed 29 February 2012]; Bruce Schneier, ‘Real Story of the Rogue Rootkit’, *Wired*, 2011 <<http://www.wired.com/politics/security/commentary/securitymatters/2005/11/69601?currentPage=all>> [accessed 29 February 2012].

¹⁴ Nate Anderson, ‘Canadian Regulators Allow P2P Throttling’, *Ars Technica*, 2009 <<http://arstechnica.com/old/content/2008/11/canadian-regulators-allow-p2p-throttling.ars>> [accessed 29 February 2012]; Ernesto, ‘BitTorrent Throttling Internet Providers Exposed’, *TorrentFreak*, 2011 <<https://torrentfreak.com/bittorrent-throttling-internet-providers-exposed-111020/>> [accessed 29 February 2012]; MarkJ, ‘Study Reveals UK ISP DPI Throttling of BitTorrent P2P File Sharing Internet Traffic’, *ISPreview*, 2011 <<http://www.ispreview.co.uk/story/2011/10/26/study-reveals-uk-isp-dpi-throttling-of-bittorrent-p2p-file-sharing-internet-traffic.html>> [accessed 29 February 2012]; ‘Peer to Peer, Bittorrent & Network Speed’, *The University of Leeds IT Help Desk* <<http://iss.leeds.ac.uk/helpdesk/p2p-bittorrent-network-speed>> [accessed 29 February 2012].

¹⁵ Patricia Moloney Figliola, *Digital Surveillance: The Communications Assistance for Law Enforcement Act*, Congressional Research Service Reports, 8 June 2007 <<http://digital.library.unt.edu/ark:/67531/metacrs9149/>> [accessed 29 February 2012].

property policies. Industry groups were part of a broad effort that saw the US Digital Millennium Copyright Act (DMCA) pass into law in 1998 and thus implement treaties agreed upon by the United Nations' World Intellectual Property Organisation (WIPO). More recently, Canada has under consideration Bill C-11, known as the Copyright Modernization Act, seeks to implement DMCA-style restrictions on use and duplication of copyrighted material; the UK's Digital Economy Act includes provisions for restricting Internet usage for those found to be engaging in media piracy; the French *Haute Autorité pour la diffusion des œuvres et la protection des droits sur internet* (HADOPI) implemented a controversial 'three strikes' provision that sees ISPs notifying Internet users when they are found to be using software to pirate media which can result in the ISP cutting off internet connectivity upon multiple infractions.¹⁶ Space precludes a full investigation of these policies. Each, however, can be seen as part of a broad coalition of governments and private interests spurred on by industry lobby organisations, aimed at curtailing the free flow of media on digital networks. These policies restrict Internet freedoms in the name of ensuring the continued profitability of media, pharmaceutical, and technology industries that rely on creating artificial scarcity through intellectual property in order to profit.

Lawsuits have been one of the primary tools that the media industries have used to create a chilling effect around piracy by threatening and punishing both organisations and individuals found to be involved in media piracy. The Napster lawsuit, saw the RIAA argue that the service was responsible for facilitating widespread copyright infringement beyond what was covered by 'fair use' provisions for personal copying. Napster countered these arguments by pointing to non-infringing uses of its software and arguing that the service was itself not responsible for infringement and, like magazines or newspapers, it had a right to provide users with information about digital media. Ultimately, these arguments fell on deaf ears and, though the lawsuits were suspended in the end, the settlements between Napster and the major labels ultimately saw the service shutdown and rebrand as a legitimate venue for purchasing digital music

¹⁶ 'DMCA', *Electronic Frontier Foundation* <<https://www.eff.org/issues/dmca>> [accessed 29 February 2012]; Michael Geist, 'Michael Geist - C-32', *Michael Geist* <http://www.michaelgeist.ca/index.php?option=com_tags&task=view&tag=c-32&Itemid=411> [accessed 29 February 2012]; Peter Bradwell, 'The Digital Economy Act: Where We Go Now', *Open Rights Group*, 2011 <<http://www.openrightsgroup.org/blog/2011/the-digital-economy-act:-where-we-go-now>> [accessed 29 February 2012]; Eric Pfanner, 'France Approves Wide Crackdown on Net Piracy', *The New York Times*, 23 October 2009, section Technology <<https://www.nytimes.com/2009/10/23/technology/23net.html>> [accessed 29 February 2012].

tracks.¹⁷ Legal action against other peer-to-peer services, including BitTorrent sites, largely follows the models set out by the Napster case. The popular peer-to-peer Kazaa was effectively sued out of existence by a variety of global media interests; the company settled out of court and was, like Napster, transformed into an unsuccessful legitimate service.¹⁸

There have been high profile cases against BitTorrent sites in recent years too. Quebectorrent, a small, Quebec-based, Canadian torrent site that went online in 2006 was the target of lawsuit initiated by the Association québécoise de l'industrie du disque, du spectacle et de la vidéo (ADISQ) and the Association des producteurs de films et de télévision du Québec (APFTQ) and included the participation of several Canadian record labels, Canadian branches of US record labels, and the Canadian Recording Industry Association (CRIA). Ultimately, facing steep legal charges and a legal injunction to cease and desist, the site's owner voluntarily shut down the site in exchange for the lawsuit participants' withdrawal of damage claims.¹⁹ Another important case was against the Dutch BitTorrent site Mininova, which operated as a legitimate business, complete with high street offices in Utrecht. Mininova had an illustrious history among filesharers; it was one of the largest BitTorrent indexes, was the ninth most searched for term on Google in 2006, and reached five *billion* downloaded torrents in 2008.²⁰ The case against Mininova was spearheaded by BREIN and suggested that as a legitimate business Mininova could thus implement technical measures to guard against infringing content being added to its database of torrents. Mininova voluntarily started to implement content filtering systems, much to the ire of its dedicated userbase, and in the end decided in an out-of-court settlement to remove all potentially infringing content and limit the content on its site only to that which was

¹⁷ Burkart and McCourt, *Digital Music Wars*, pp. 55–63.

¹⁸ 'Judge Backs Case Against Kazaa', *BBC News*, 26 November 2002, section Entertainment <<http://news.bbc.co.uk/2/hi/entertainment/2514153.stm>> [accessed 29 February 2012]; 'Kazaa Site Becomes Legal Service', *BBC News*, 27 July 2006, section Technology <<http://news.bbc.co.uk/2/hi/science/nature/5220406.stm>> [accessed 29 February 2012].

¹⁹ enigmaX, 'Permanent Injunction Closes QuebecTorrent', *TorrentFreak*, 2008 <<https://torrentfreak.com/permanent-injunction-closes-quebectorrent-080711/>> [accessed 29 February 2012]; Michael Geist, 'Michael Geist - The Legal Battle over QuebecTorrent', *Michael Geist*, 2007 <<http://www.michaelgeist.ca/content/view/2416/125/>> [accessed 29 February 2012].

²⁰ Ernesto, 'Mininova Dwarfed A Year After Going "Legal"', *TorrentFreak*, 2010 <<https://torrentfreak.com/mininova-dwarfed-a-year-after-going-legal-101127/>> [accessed 29 February 2012]; Ernesto, 'Mininova, 5 Billion Downloads and Counting', *TorrentFreak*, 2008 <<https://torrentfreak.com/mininova-5-billion-downloads-and-counting-080526/>> [accessed 29 February 2012]; 'Zeitgeist 2006', *Google Press Center: Zeitgeist* <<http://www.google.com/press/zeitgeist2006.html>> [accessed 29 February 2012].

'authorised' by its creators.²¹

The case against the Swedish site The Pirate Bay is the paradigmatic example of the intensity of the legal struggles facing public BitTorrent sites and the litigious atmosphere that has grown up along side the rise of BitTorrent sharing. The site's servers were raided and confiscated by police only to see the site return within days; the members of the accused, the four principals of The Pirate Bay openly mocked the trial proceedings; activists took to the streets in Sweden to protest the trial.²² It was also suggested that the case against The Pirate Bay was the result of threats made by the US to introduce trade sanctions against Sweden unless they took action against The Pirate Bay.²³ The trial ended in 2009 a guilty verdict against the four principals, which included the payment of a shared fine of close to US\$3.5 million and time in prison.²⁴ This verdict was appealed, but upheld in 2010.²⁵

Lawsuits against individuals have been another way that industry has attempted to stem the flow of pirated content. The paradigmatic example in this regard has been the US case against Jammie Thomas-Rasset. Beginning in 2005 the young woman refused to settle a cease-and-desist letter sent by the RIAA accusing her of engaging in media piracy using the Kazaa peer-to-peer software. She was sued for statutory damages by the major record labels and was found guilty in 2007 and was responsible for almost US\$2 million in damages.²⁶ After several retrials and appeals that saw damages reduced, only to be raised again by different courts, the case is still under appeal.²⁷ Still other cases against BitTorrent users follow the form of the US 'John Doe' lawsuit, which sees plaintiffs bringing suit against a mass of anonymous downloaders,

²¹ See 'Torrent Removal Trial', *Mininova Blog*, 2009

<<http://blog.mininova.org/articles/2009/05/06/torrent-removal-trial/comment-page-1/>> [accessed 29 February 2012] and 'Mininova Ends Illegal Torrents', *BBC News*, 26 November 2009, section Technology <<http://news.bbc.co.uk/2/hi/technology/8382012.stm>> [accessed 29 February 2012].

²² Nate Anderson, 'Pirate Bay: We Don't Know Nothin' About Org Charts, Contracts', *Ars Technica*, 2009 <<http://arstechnica.com/tech-policy/news/2009/02/pirate-bay-we-dont-know-nothin-about-org-charts-contracts.ars>> [accessed 29 February 2012]; 'Pirate Bay Hit with Legal Action', *BBC News*, 31 January 2008, section Technology <<http://news.bbc.co.uk/2/hi/technology/7219802.stm>> [accessed 29 February 2012]; David Kravets, 'Landmark Pirate Bay Trial Begins Monday', *Wired*, 2009 <<http://www.wired.com/threatlevel/2009/02/pirate/>> [accessed 29 February 2012].

²³ Ernesto, 'Wikileaks Cable Shows US Involvement in Swedish Anti-Piracy Efforts', *TorrentFreak*, 2010 <<https://torrentfreak.com/wikileaks-cable-shows-us-involvement-in-swedish-anti-piracy-efforts-101207/>> [accessed 29 February 2012]; Rick Falkvinge, 'Cable Reveals Extent Of Lapdoggerly From Swedish Govt On Copyright Monopoly', *Falvinge on Infopolity*, 2011 <<http://falkvinge.net/2011/09/05/cable-reveals-extent-of-lapdoggerly-from-swedish-govt-on-copyright-monopoly/>> [accessed 29 February 2012].

²⁴ Nate Anderson, 'The Pirate Bay Verdict: Guilty, with Jail Time', *Ars Technica*, 2010 <<http://arstechnica.com/tech-policy/news/2009/04/the-pirate-bay-verdict-guilty-with-jail-time.ars>> [accessed 29 February 2012].

²⁵ 'Pirate Bay Founders Lose Appeal', *BBC News*, 26 November 2010, section Technology <<http://www.bbc.co.uk/news/technology-11847200>> [accessed 29 February 2012].

largely in the hopes that some will choose to settle for damages out of court.²⁸

As to the effect of the legal strategy of the content industries, the results have done little to stop online piracy, and have, rather, terrorised individuals and even increased the popularity of certain sites that have been targeted. In the QuebecTorrent case, the site lawyers argues that the lawsuit was more about setting precedent rather than seeking any real compensation. The site's lawyers, Lecours & Lessard, noted that,

[t]heir indirect objective seems to make a jurisprudential precedent of QuebecTorrent, applicable to all Peer to Peer websites. If an eventual decision would condemn QuebecTorrent, it would effectively create a jurisprudential precedent in Canadian law, as this judgment would constitute the first jurisprudence in this matter, it would set out the applicable law to all BitTorrent websites in Canada.²⁹

The significance of precedent was also emphasised by noted Canadian copyright expert and University of Ottawa professor Michael Geist when he noted that,

while the knee jerk reaction of some will be to call for the site's immediate takedown, the legal principles that come from the case, including the liability for linking to unauthorized content and the responsibility of site owners for content posted by 3rd parties, could have significant implications for search engines, bloggers, and anyone else operating online.³⁰

Joe Karaganis notes that the industry itself is likely to have a much broader agenda: 'Nearly all the major actors in the content industry understand these legal efforts as stopgap measures—bad for public relations and of dubious value in slowing the growth

²⁶ Lewis Krauskopf and Gavin Haycock, 'UPDATE 2-Music Industry Wins Song-download Case', *Reuters*, 5 October 2007 <<http://www.reuters.com/article/2007/10/05/musicindustry-lawsuit-idUSN0541841120071005>> [accessed 29 February 2012]; Joshua Freed, 'Woman to Pay Downloading Award Herself', *USA Today*, 5 October 2007 <http://www.usatoday.com/tech/news/techpolicy/2007-10-05-download-verdict_N.htm> [accessed 29 February 2012].

²⁷ David Kravets, 'Judge Declares Mistrial in RIAA-Jammie Thomas Trial', *Wired*, 2008 <<http://www.wired.com/threatlevel/2008/09/not-for-publica/>> [accessed 29 February 2012]; 'Record Companies Plan Music Downloading Appeal', *Business Week*, 2011 <<http://www.businessweek.com/ap/financialnews/D9P9CPV03.htm>> [accessed 29 February 2012].

²⁸ Keegan Hamilton, 'What to Do If You Receive a BitTorrent "John Doe" Lawsuit Letter', *Seattle Weekly Blogs*, 2011 <http://blogs.seattleweekly.com/dailyweekly/2011/08/what_to_do_if_you_receive_a_bittorrent_john_doe_lawsuit_letter.php> [accessed 29 February 2012].

²⁹ enigmaX, 'QuebecTorrent Lawsuit: Backdoor to Banning All Canadian BitTorrent Sites?', *TorrentFreak*, 2007 <<https://torrentfreak.com/backdoor-to-banning-all-canadian-bittorrent-sites-071125/>> [accessed 29 February 2012].

³⁰ Michael Geist, 'The Legal Battle over QuebecTorrent', *Michael Geist*, 2007 <<http://www.michaelgeist.ca/content/view/2416/125/>> [accessed 29 February 2012].

of informal distribution, but of potentially greater value in fostering a political climate in which more effective legal and technical solutions can be enacted'.³¹ Ultimately, the litigious environment that has arisen around media piracy has done little to combat the 'problem' and more to raise issues around copyright and intellectual property generally. Copyright, once the domain of media industry lawyers and CEOs has now become the dominant form of thinking about media and the Internet.

AGAINST COPYRIGHT

This thesis takes as a point of departure the emphasis placed, since the late 1990s, on issues of online piracy and its relationship to copyright and intellectual property. Copyright has become the dominant frame of thought when engaging with the relationship between media distribution and the Internet, and, I argue, this has been to the detriment of other vital areas of inquiry. The initial emergence of the Internet as a means to share media saw a surge of scholarly works dedicated to taking up the potentially revolutionary effects that the technology would have for existing copyright law.³² It is not my intention to rehearse the specifics of what has become known as the 'copyfight'. However, I will note that the predominant view that has emerged is that existing copyright laws are ill equipped to account for the myriad cultural practices that are facilitated by the capacity to infinitely duplicate existing cultural texts. The most established proponent of this view is Lawrence Lessig of the Harvard law school whose influential book *Free Culture: How Big Media Uses Technology and the Law to Lock Down Culture and Control Creativity* has had lasting impact on the view that some form of copyright itself must be retained. Yet, as Lessig argues, it must be modified, softened, to account for the crucial role that cultural borrowing, remixing, collage, and so forth play in the vitality of cultural production.³³

I argue however that copyright's dominant place in discourses about media piracy needs to be augmented by other ways of thinking, such as the ones I present in the latter stages of this thesis. This augmentation is necessary because if we are to see

³¹ Karaganis, pp. 256–277 (p. 260).

³² Kembrew McLeod, *Freedom of Expression(TM): Overzealous Copyright Bozos and Other Enemies of Creativity* (New York: Doubleday, 2005); Siva Vaidhyanathan, *Copyrights and Copywrongs: the Rise of Intellectual Property and How It Threatens Creativity* (New York: New York University Press, 2001); Siva Vaidhyanathan, *The Anarchist in the Library: How the Clash Between Freedom and Control Is Hacking the Real World and Crashing the System* (New York: Basic Books, 2004); Michael Strangelove, *The Empire of Mind: Digital Piracy and the Anti-capitalist Movement* (Toronto: University of Toronto Press, 2005).

³³ Lawrence Lessig, *Free Culture: How Big Media Uses Technology and the Law to Lock Down Culture and Control Creativity* (New York: Penguin Press, 2004).

piracy as a transformative force, not just a force that results either in harsher or softer copyright laws, then we must take into account some of the more ambivalent aspects of piracy in order to gain greater purchase on whatever transformative potentials it may have. As Massimo de Angelis suggests, 'if we constrain the formulation of our aspirations to meet the need of what is permitted, we will never escape the present, and we will never connect with the imagery and aspirations of millions more and we will never develop constitutive networks beyond the interstices of the current society'.³⁴ This thesis seeks to escape the present dominance of copyright and shift the focus to the actual activities of pirates and as a result generate new ways of thinking about the potential that piracy has to transform.

ON THE ROLE OF CREATORS

This thesis does not focus in any significant way on the relationship between piracy and cultural producers as they are traditionally understood (i.e. artists, musicians, filmmakers, etc.). Indeed, it troubles the centrality of artists and creators in debates about media piracy. Within copyright discourse artists are often granted a privileged position, whether or not this is in the service of industry propaganda or motivated by a genuine desire for greater artist self-determination and fairer rights for the end 'users' of media products. But should not such a focus locate creative labour as one of many different types of labour that are 'freely' bought and sold in the service of profit and the generation of capital? Put another way, a limited focus on artist remuneration within the context of media piracy does not acknowledge the wider problematic of the increasingly expansive structuring role of capitalist accumulation strategies in contemporary society. Such strategies have ultimately begun to see the commodification of the everyday lives of music listeners and other media consumers as they become value-bearing audiences bought and sold as informational commodities.

A standard objection to media piracy emanating from both the 'copyleft' and the traditional media industries alike is that piracy puts artists at risk of losing compensation because their material circulates online unlicensed and for free. The media industries regularly deploy concern for creators' well-being and future remuneration in its

³⁴ Massimo de Angelis, 'The Networker's Querist. Some Questions and Tentative Answers on Networks and Social Transformations' (presented at the Networks and Transformations Global Studies Association, Metropolitan University of Manchester, 2001), p. 8
<<http://libcom.org/files/netquery.pdf>>.

lobbying efforts and public information campaigns.³⁵ In terms of music, the recorded music industry's principal argument rests on the proposition that it is the industry best equipped to ensure that artists are compensated for the reproduction of their material. Should the industry suffer economic blows as a result of media piracy, it is argued that artists would be the ones to feel the worst effects. It is this rationale, the industry suggests, that is behind efforts to secure tighter restrictions on media usage through the implementation of digital rights management and intensified lobbying for tighter copyright control and the extension of copyright terms.

Within 'copyleft' discourse, there are many objections to the industry's claims. Allegations of lost sales almost always rely on the logic that one pirated copy of digital media equates to one lost sale. This is known as the 'substitution effect' or 'substitution rate' and has been largely disproven as an effective method for measuring the effects of piracy on industry revenues.³⁶ The industry's position is also seen as somewhat disingenuous since there is a well-documented history of highly exploitative recording contracts, unequal protection under copyright regimes for traditionally 'othered' musicians, the withholding of reproduction rights of back catalogues, and even secretive manufacturing processes.³⁷ However, those who object to the music industry's ersatz concern for the welfare of artists are not necessarily in favour of media piracy either. Their arguments are largely based around the issue of artist self-determination, only one facet of which is artists' relationship to copyright policy and enforcement. There emerges within this discourse a concern for 'balanced' copyright reforms that would ideally acknowledge the important role of cultural borrowing and copying in creative processes and the potential benefits of artist-controlled distribution of creative work.³⁸

The creative commons and 'copyleft' movements are two highly visible

³⁵ Tarleton Gillespie, 'Characterizing Copyright in the Classroom: The Cultural Work of Anti-piracy Campaigns', *Communication, Culture & Critique*, 2 (2009), 274–318.

³⁶ 'Intellectual Property: Observations on Efforts to Quantify the Economic Effects of Counterfeit and Pirated Goods', United States Government Accountability Office Report to Congressional Committees GAO-10-423, April 2009 <<http://www.gao.gov/products/GAO-10-423>> [accessed 20 July 2012].

³⁷ See Steve Albini, 'The Problem With Music', *Maximum Rock 'n' Roll*, June 1994, republished at *Negativworldwidewebland* <http://www.negativland.com/news/?page_id=17> [accessed 20 July 2012]; Cory Doctorow, 'Music: The Internet's Original Sin', *LocusMag*, 4 July 2012 <<http://www.locusmag.com/Perspectives/2012/07/cory-doctorow-music-the-internets-original-sin/>> [accessed 20 July 2012]; Janis Ian, 'The Internet Debacle', *Performing Songwriter Magazine*, May 2002, republished at *janisian.com*, <http://www.janisian.com/reading/internet.php> [accessed 20 July 2012]; Janis Ian, 'Fallout: A Follow Up to the Internet Debacle', *janisian.com*, 1 August 2002 <<http://www.janisian.com/reading/fallout.php>> [accessed 20 July 2002]; Kevin J. Greene, 'Copyright, Culture & Black Music: A Legacy of Unequal Protection' 21 *Hastings Comm & Ent. L.J.*, 339 Winter, 1999.

examples of a perspective that sees copyright as necessary for maintaining the livelihood of artists, but which object to the strengthening of a copyright regime that potentially accrues more benefits to corporate rights holders and not to the artists themselves. Such a perspective advocates for more artist control over which rights one claims and which rights one waves (i.e. the right to allow for music to be reused and adapted without the need for a licence, or for derivative works to carry with them the same licensing conditions), and finds expression in the increasing possibilities modern network technologies have for self-promotion and distribution online. These perspectives argue that restricting access to cultural production is inappropriate in an age where copying has become integral to the technological operation computer networks and a fully entrenched practice in the creation of culture. ‘Progressive’ approaches, such as those embodied in the Creative Commons license, thus locate media piracy as a form of consumer activism against media industry practices; piracy is cast as a ‘wake up call’ for the industry to engage in new business practices that will harness the power of digital distribution technologies to make available a wealth of content at a greatly reduced price while at the same time easing restrictions on the borrowing and reuse of digital cultural content. The imagined endgame of this scenario sees consumers and producers alike benefiting from reforms to copyright policies which take into account the unique practices around copying that characterise cultural production in the digital era.³⁹

Competing analyses of the effects of media piracy on artists’ financial welfare abound, but are rarely conclusive.⁴⁰ At the same time, benefits to artists through the greater opportunities for self-promotional strategies that rest on the free circulation of music appear to be many. Oft-cited examples include established artists such as Radiohead and Trent Reznor of Nine Inch Nails, who appear to have gained a certain amount of rebellious credibility through their experiments with free distribution and to have gained new fans. Others, such as the Arctic Monkeys, owe much of their early

³⁸ See Lawrence Lessig, *Free Culture: How Big Media Uses Technology and the Law to Lock Down Culture and Control Creativity* (New York: Penguin Press, 2004) and Siva Vaidhyanathan, *Copyrights and Copywrongs: the Rise of Intellectual Property and How It Threatens Creativity* (New York: New York University Press, 2001)

³⁹ See Matt Mason, *The Pirate’s Dilemma: How Youth Culture Is Reinventing Capitalism* (New York: The Free Press, 2008) and Marcus Boon, *In Praise of Copying* (Cambridge, MA: Harvard University Press, 2010)

⁴⁰ Ernesto, ‘Music Piracy Not That Bad, Industry Says’, *TorrentFreak*, 18 January 2009 <<https://torrentfreak.com/music-piracy-not-that-bad-industry-says-090118/>> [accessed 20 July 2012].

notoriety to the circulation of their material on pirate networks.⁴¹ As a result of the popularity of recorded work, revenue can be earned through different avenues such as live concert ticket sales, or what *Forbes* author Timothy Lee refers to as the use of disposable income for the purchase of ‘experiences’.⁴² Recorded music takes on the character of a ‘loss leader’, a promotional object meant to entice fans into a more consolidated web of commodity relations that includes everything from paid subscription services, merchandise, fan club memberships, ‘on-demand’ recordings of live material, and so on. The shifting of economics of music production from recorded music commodities to live performance is often cited as one of the positive effects of piracy on the media industries and discursively comes to represent, for progressive copyright reformists, a way in which creative work can continue to be profitable and in which a greater share of that wealth can accrue to creators.

In the end though both industry and ‘copyleft’ positions do little to challenge the basic premise of private property that lies at the centre of copyright. Both the media industry and ‘copyleft’ perspectives appeal to the notion that individual creators are (or should be) at base the final recipients of wealth generated by state-enforced policies that regulate distribution and licensing of cultural production. Such a perspective rests on the acceptance of a system in which the products of creative labour are abstracted as monetary value that can accrue to private individuals and as such does little to acknowledge the potentially broader challenge that piracy offers to systems of commodification and capitalist accumulation. I suggest that an overarching focus on artist remuneration ultimately obscures other beneficial ways of grappling with piracy’s potentially more radical challenges to the very notion of private property and conceptualisations of value, labour, and profit within contemporary society.

AGAINST PRESUPPOSITIONS

This thesis is also about challenging some axiomatic positions that do consider piracy a radical phenomenon. The potentialities of piracy have been alluded to, but not

⁴¹ Owen Gibson, ‘Arctic Monkeys Climbing High - Thanks to the Net’, *The Guardian*, 17 October 2005 <<http://www.guardian.co.uk/technology/2005/oct/17/news.arts>> [accessed 7 August 2012]; Carrie Brownstein, ‘The “In Rainbows” Experiment: Did It Work?’, *NPR.org*, 16 November 2009 <http://www.npr.org/blogs/monitormix/2009/11/the_in_rainbows_experiment_did.html> [accessed 7 August 2012]; Greg Sandoval, ‘Trent Reznor: Take My Music, Please’, *CNET*, 30 October 2007 <http://news.cnet.com/8301-10784_3-9807934-7.html> [accessed 7 August 2012].

⁴² Lee, Timothy B., ‘Why We Shouldn’t Worry About The (Alleged) Decline Of The Music Industry - Forbes’, *Forbes*, 30 October 2007 <<http://www.forbes.com/sites/timothylee/2012/01/30/why-we-shouldnt-worry-about-the-decline-of-the-music-industry/>> [accessed 7 August 2012].

fully developed, by many contemporary leading theorists from a variety of traditions of thought. Based in a modern conceptualisation of Thoreau's 'civil disobedience', Mark Poster provides a critique of the legal mechanisms for the institutionalisation of private property when he asserts that 'with regard to intellectual property, the legal structure no longer provides any semblance of justice. Hence all citizens have an obligation to violate copyright law whenever they can'.⁴³ Christian Fuchs pushes even further by pointing to the illegitimate ethical foundations of the concept of intellectual property as such when he observes that 'because knowledge and communications are aspects of society that are produced and generated by all human beings [...] there is no ethical ground for arguing that these commons should be owned [...]'.⁴⁴ Michael Hardt also emphasises this kind of ethical focus when he quips that '[p]irates have a [...] noble vocation, they steal property. [...] corporations steal the common and transform it into property'.⁴⁵ And Nick Dyer-Witthford locates piracy firmly in the world of contemporary activism when he notes that "both are on a collision course with the property regime of capital in its most advanced forms. Although the worlds of Indymedia centres and free downloads do not necessarily intersect, there is a connection between them in terms of rejection of commodification and privatisation".⁴⁶

Such observations are important since they point toward the capacity for piracy to inspire new ways of cultural distribution—expressed here as an emancipation of digital media from the grip of private property. Yet, none of these theorists have been able to fully articulate precisely what features of media piracy, peer-to-peer sharing, and copyright infringement carry the potential to rupture or elude contemporary capital's valorisation processes. Dyer-Witthford offers the vague notion that P2P practices form a central component in the subjectivity of modern students and that universities themselves are 'pirate colonies'.⁴⁷ This is a perspective that curiously echoes the problematic 'digital native' thesis which holds that young people born in the age of networked communications naturally gravitate to and have mastery over network

⁴³ Mark Poster, 'Who Controls Digital Culture?', *Fast Capitalism*, 1 (2005) <http://www.uta.edu/huma/agger/fastcapitalism/1_2/poster.htm> [accessed 14 February 2011].

⁴⁴ Christian Fuchs, 'The Internet as Playground and Factory', 2010 <<http://vimeo.com/7954268>>.

⁴⁵ Michael Hardt, 'The Common in Communism', in *The Idea of Communism*, ed. by Slavoj Žižek and Costas Douzinas (New York: Verso, 2010), pp. 131–144.

⁴⁶ Nick Dyer-Witthford, 'Cognitive Capitalism and the Contested Campus', in *Engineering Culture: On The Author as (Digital) Producer*, ed. by Geoff Cox and Joasia Krysa (Autonomedia (DATA Browser 02), 2005), pp. 71–93 (p. 86) <kurator.org/media/uploads/publications/DB02/DyerWitthford.pdf>.

⁴⁷ Dyer-Witthford, 'Cognitive Capitalism', pp. 86–87.

technologies.⁴⁸ Dyer-Witheford sees in this mastery the capacity for the development of a spontaneous form of elementary communism represented in filesharing.⁴⁹

I find these appraisals of piracy attractive, but not entirely satisfactory. As the research that follows will show, piracy is a much more ambivalent phenomenon that is neither wholly revolutionary nor wholly coopted by capital. It contains features that at once support and subvert capitalist logics of accumulation, private property, and exclusion. In this light, the above positions, with their recourse to ethics and optimistic view of a generation growing up with piracy, would be better served by a more nuanced understanding of piracy in its specificity, since they each assume *a priori* that piratical practices in their totality carry with them an inherent capacity to disrupt the logic of private accumulation through an automatic decommodification of intellectual property.

Such an approach means paying close attention to the different types, venues, and tactics that make up music piracy. This focus reveals that there are in fact scenarios in which the logic of private accumulation and the commodification of audiences is not at all subverted, but is at times simply transposed. Paying attention also reveals scenarios in which concern for the common appears to be sacrificed at the same time as significant challenges to commodification are mounted. In other words, as will be shown in the subsequent analysis of public and private BitTorrent sites, commodification does not always mean that cultural products are unable to circulate freely and decommodification does not necessarily translate positively in an increase of freely available cultural production. In this way, music piracy itself can be viewed as an expression of the tensions and contradictions of contemporary capitalism, its relationship to issues of commodification, and the open and free access to cultural production.

STRUCTURE

Ethnography and Description

Chapter Two introduces the BitTorrent protocol, the foundational technology that facilitates the online media piracy discussed throughout this thesis. Though

⁴⁸ See Gerald Haigh, 'Open University Research Explodes Myth of "Digital Native"', *Merlin John Online*, 2011 <<http://www.agent4change.net/resources/research/1088-open-university-research-explodes-myth-of-digital-naive.html>> [accessed 29 February 2012] and Marc Prensky, 'Digital Natives, Digital Immigrants', *On the Horizon*, 9 (2001) <www.marcprensky.com/writing/Prensky%20-%20Digital%20Natives,%20Digital%20Immigrants%20-%20Part%201.pdf>.

⁴⁹ Dyer-Witheford, 'Cognitive Capitalism', p. 86.

BitTorrent is not the primary focus of this thesis, I offer some details about the protocol. I address its historical emergence as a second-wave peer-to-peer technology following the demise of Napster in the early 2000s. BitTorrent is one of the most popular ways in which copyrighted material is shared online and it also is found in mainstream and commercial products that rely on the transfer of large files. The chapter provides a description of the technical elements of BitTorrent, the importance of 'trackers', and terminology associated with BitTorrent filesharing that is used throughout the thesis.

Chapter Three describes the technical, social, and cultural contours of publicly accessible BitTorrent search indexes, which are the dominant means for finding BitTorrent content. In their role as primarily search engines, these sites are open up access to cultural production to anyone with an Internet connection and a basic knowledge of BitTorrent filesharing. I describe how public sites are relatively basic in their search functions, which are largely keyword-based. Their databases, while large, are presented in a somewhat disorganised fashion and often contain duplicate and often poor quality content. Since public sites tend to have little to no oversight of the content that is shared, comment fields are important ways that users intervene in the process of socially curating the content that is available. I also describe how, despite the important role that users play in sharing and communicating about media on public sites, the sites themselves valorise these users through advertising in order to cover operational costs. So, though these sites reject the commodity status of digital media through facilitating copyright infringement, they also potentially reinforce commodification by packaging their audiences into informational commodities to be sold to advertisers.

Chapter Four describes how membership at private 'members-only' BitTorrent sites is obtained. I focus on private sites in which administrators determine access via interviews, applications, and invitations. These sites vet aspiring members for their technical acumen and commitment to contributing to the sites. As with public sites, private BitTorrent sites facilitate copyright infringing media sharing yet they are not openly accessible. Potential members must possess technical, social, and cultural knowledge about BitTorrent filesharing and they also must demonstrate a commitment not just to downloading, but to uploading content. The chapter takes up the various ways that aspiring members come to learn about private sites, how they obtain invitations to participate, what is required during application and interview processes, and the ongoing membership duties required once member access is granted.

Chapter Five describes the specific aspects of private sites with which one

engages once membership has been granted. I analyse the importance of the 'share ratio', or the requirement that members upload a certain amount of what they download. The ratio is a distinctive feature of private sites, and most private sites do feature some sort of ratio incentive. Share ratio enforcement generally results in a large, diverse, and continuously available catalogue of media. I also describe the role that status and hierarchy play at private sites. Members are incentivised to share media and progress through a series of hierarchical of 'user classes' or 'statuses' and are rewarded with access to enhanced site functionality. This highlights the exclusive nature of private sites, which is further revealed in the roles that site staff, owners, and administrators play on the site as 'benevolent dictators' whose word, quite literally, is the law on private sites. How private sites are funded is an important part of understanding the ambivalence of private torrent sites. The sites are largely funded by donations, but they are notoriously secretive about how any donation money is used. This is a matter of some concern for some members, while others demonstrate a level of trust that the site owners use the money to enhance site features and keep the sites running. The chapter concludes with an example of just how sophisticated the curation of media content can be on private sites. The example is drawn from one of the most highly regarded music sites and demonstrates the prioritisation of technical quality and attention to detail that characterises private sites more generally.

The empirical research conducted for this thesis took place in the period from late 2007 until late 2011. There were two main facets to this research: attending to media discourse and observation on public and private BitTorrent filesharing websites. The first involved tracking to mainstream and alternative media discourses about BitTorrent piracy, filesharing culture and technology, copyright and Internet policy, and other forms of digital activism. In addition to mainstream media coverage of such issues (which is very rare), hundreds of filesharing- and computer technology-related blogs and alternative news sites were aggregated using Really Simple Syndication (RSS). RSS allowed me to maintain a searchable database of articles and blog posts related to filesharing and media piracy, and revealed a tremendous amount of discursive activity about these subjects, with some multi-writer blogs posting sometimes ten to twenty times each day. In contrast, mainstream news sites did not cover such issues regularly at all, and when they did it was largely to note the ongoing legal troubles of certain sites, most notably, The Pirate Bay.

The discourse that does take place on filesharing blogs and news sites tends to

be, unsurprisingly, pro-filesharing and if not ‘anti-’ copyright, at least aligned with copyright reformist positions that seek to influence policy in order to soften existing copyright laws or stem the tide of capital’s overreach in the realm of intellectual property. News sites like *Zeropaid* or multi-writer blogs like *TorrentFreak* are invaluable repositories of information about filesharing, at times acting as veritable ‘how to’ manuals for engaging in the practice.⁵⁰ Blogs like *FILEnetworks Blog* provided insight into the world of private BitTorrent piracy, because they are less concerned with the type of wide-ranging news featured on sites like *TorrentFreak* and more concerned to alert filesharers to new private torrent sites, opportunities for gaining membership, and scandals internal to the private filesharing world.⁵¹ The variety of discourse was in itself was instructive. Much like the forms of piracy taken up in this thesis, many of these news sites are the product of individuals working autonomously to engage with issues in a way that suggests an antimony toward the mainstream media’s indifference to piracy and filesharing more generally. As piracy attempts to directly intervene in order to find more efficient and pleasurable ways for sharing media that that afforded by legal alternative, filesharing blogs and news sites intervene in order to carve out a discursive space for engaging with a broad range of issues germane to filesharing, not just the ‘sensationalist’ stories about copyright and arrests of torrent site administrators.

The second aspect of this research involved observing the workings of public and private BitTorrent search sites. On a regular basis I visited public BitTorrent sites in order to browse available content, read comments pages and forum entries, observe changes in site design, take note of types of advertising, and so forth. I also secured membership to several private sites, including two of the most highly regarded music sites and two highly regarded site that primarily, but not exclusively, focus on film. In the case of SITE B and SITE E, two of the sites I take up in detail in chapters Four and Five, I had been a member of these sites prior to beginning the research. My SITE B membership lapsed during the research because I hadn’t visited the site in some time. Therefore, I had to utilise the site’s Internet Relay Chat channel in order to ask for my account to be reinstated. It was reinstated, with no questions asked by the staff member. In Chapter Four I describe the SITE F interview process I took the SITE F interview

⁵⁰ ‘TorrentFreak | Torrent News, Torrent Sites and the Latest Scoops’, *TorrentFreak* <<https://torrentfreak.com/>> [accessed 11 February 2012]; ‘Zeropaid.com - Technology News, Software, Forums and Download Links’, *ZeroPaid* <<http://www.zeropaid.com/>> [accessed 11 February 2012].

⁵¹ ‘FILEnetworks Blog’, *FILEnetworks Blog* <<http://filenetworks.blogspot.com/>> [accessed 11 February 2012].

twice, failing the first time. Other sites, such as SITE C and SITE D had open sign ups late in the research period, and thus I was able to become a member in each.

I visited these sites on a regular basis in order to construct a picture of each site's internal dynamics in order to find similarities and differences between them, and also between private sites as a whole and public sites. I looked to determine what the nature of the sharing processes was, how it was impacted by the various rules and regulations that govern what can be shared on these sites. I transcribed site rules pages in order to compare and contrast different site requirements. I observed current discussions and research the archive of in the the forums present at each site, though I did not participate in these discussions.

My observations of public and private sites were invaluable in providing the type of specific detail that I argue is necessary in order to gain a nuanced understanding of piracy. As is described through chapters Three, Four, and Five, these observations resulted in a highly ambivalent understanding of media piracy that runs counter to many of the now axiomatic views of piracy as inherently liberatory or an outright threat to the profits of the media industries.

A little more than half of this thesis presents a highly detailed overview of the types of social, cultural, political, and economic activity that takes place on both public and private sites. There are three primary reasons for this lengthy descriptive section:

- 1) Public, and especially private, BitTorrent filesharing is a fairly niche phenomenon. Therefore, it is crucial that the specifics of these site be introduced in a systematic manner.
- 2) BitTorrent filesharing requires a certain amount of technical knowledge. I wish to avoid reinforcing the mystification of such technical processes that is typical within discussions of online phenomena.
- 3) The content of the World Wide Web is, by its very nature, transitory. The sites discussed here, while accessible now, may not be in the future. Thus, I hope to provide a historical record of the various practices and processes that make (made) up BitTorrent filesharing in this specific historical moment.

I will expand on each of these points briefly below. Following that, I will offer some reflection on the potential limitations of such a description-heavy approach.

In the descriptive section I hope to provide the reader with a highly detailed overview of the types of social, cultural, political, and economic activity that takes place

on both public and private sites. Given that filesharing in general, though very popular within certain age groups and gender demographic, it remains, nonetheless, a fairly esoteric phenomenon.⁵² At the same time, interest in and usage of commercial online music alternatives has risen exponentially; as I note in Chapter Six, the successes of the iTunes Music, the Amazon MP3 store, and streaming services such as Rhapsody and Spotify currently surging in uptake are cases in point. All of this is to say that while for the technologically savvy peer-to-peer and filesharing are somewhat old news, for the majority there is only a passing familiarity with the filesharing world in general, and likely little to no knowledge of what actually goes on technologically or culturally within the various filesharing paradigms. It is even less likely that people will have any knowledge whatsoever of the complexities of BitTorrent technology and the culture that has grown up around it. Though The Pirate Bay may command a certain amount of online media attention, largely the BitTorrent world is for many yet another of a many curiosities that make up the Internet. Private sites are, of course, even less well known. Their members number in the thousands (though hundreds of thousands in some cases), they avoid media attention, do not advertise their presence, and largely stay 'under the radar' even among avid filesharers. For these reasons I think it is crucial that the reader become familiar with the complexities and intricacies of what it means to be involved in BitTorrent filesharing, especially with regard to the private sites. With greater familiarity the project of theorising what all of these strange cultural practices mean in terms of their relationship to copyright activism, anti-capitalist politics, and freedom of access to cultural production can be done in a way that avoids hasty generalisations about the damages or potentially liberating aspects of media piracy.

The second important rationale of providing the reader with a detailed description is to avoid the trap of assuming a base level familiarity and competence with the technical and cultural specificities of any given Internet phenomenon. Personal computing has since its beginning been largely a field of experts and dedicated hobbyists who have often been highly invested in maintaining an air of mystification about their knowledge of and abilities to use and manipulate computer hardware and software. This mystification has seen the proliferation and success of commercial repair services, consulting firms, and the freelance web-designer, each of whom is invested in some way in keeping secret their knowledge about these machines that make up so

⁵² *Trend Data (Adults)* (Pew Research Center's Internet and American Life Project, 2009) <<http://pewinternet.org/Trend-Data.aspx>> [accessed 29 February 2012].

much of our modern daily lives. The descriptive section is meant to temper this secrecy and mystification by given the reader an insider's look at the operations of public and private BitTorrent sites.

The third reason for including such a detailed description speaks to the transitory nature of online phenomenon, the importance documentation, and the role this plays in human knowledge. Websites have a tendency to come and go over time; what seemed to be a central component of online communication yesterday may, for various reasons, simply disappear tomorrow. The case of Geocities, once a thriving aspect of the early web is instructive: when Yahoo, who had purchased the site in 1999, closed the site in 2009 some 38 million user created web pages simply disappeared from the web.⁵³ Such instability of the web archive is placed in even greater relief with regards to media piracy. The hazy legality of copyright infringing peer-to-peer activity means that sites are likely to disappear rather quickly if the site operators sense impending doom. Moreover, sometimes such sites are actually subject to forcible shutdown. SITE G, a private BitTorrent site that I refer to throughout this thesis was shut down in late 2007 by British and Dutch police with the help of Interpol, just as research for this thesis was beginning. I had drawn heavily on SITE G in my own research, and the results of that research remains one of, if not the only documents that details certain important aspects of the culture of that site.⁵⁴ In this thesis, then, I anticipate a time in which these sites simply will no longer exist. It is not enough to assume that the blog posts or Wikipedia articles that currently make up the majority of informational resources on filesharing will survive either.

There is a final aspect to the importance of documenting such phenomenon, and that is the potential for reinterpretation outside of the theoretical arguments that are put forth in the latter half of this thesis. In this regard I follow David Graeber's perspective on ethnographic writing. He offers the following as a rationale for why he provides the extended description of his involvement in activist organising in the early 2000s that makes up the first half of his book *Direct Action: An Ethnography*:

[t]here was a time when the detailed description of a political or ceremonial or exchange system in Africa or Amazonia was considered a

⁵³ Appropriately though, many of the Geocities sites were crawled and copied and are now downloadable in their entirety as through BitTorrent. See Scott Gilbertson, 'Geocities Lives On as Massive Torrent Download', *Wired*, 2010 <<http://www.wired.com/epicenter/2010/11/geocities-lives-on-as-massive-torrent-download/>> [accessed 29 February 2012].

⁵⁴ Paul Aitken, 'Online Music Communities: Challenging Sexism, Capitalism, and Authority in Popular Music' (unpublished Master's Thesis, Hamilton: McMaster University, 2007).

valuable contribution to human knowledge in itself. This is no longer really the case. An anthropologist actually from Africa or Amazonia, or even some parts of Europe, might still be able to get away with writing such a book. Presently, the academic convention in America (which a young scholar would be unwise to ignore) is that one must pretend one's description is really meant to make some larger point. This seems unfortunate to me. For one thing, I think it limits a book's potential to endure over time. Classic ethnographies, after all, can be reinterpreted.⁵⁵

Perhaps I err by not heeding Graeber's warning to young scholars, but I think his point is actually crucial to web research given the transitory nature I noted above. Moreover, it is also important because the Internet itself is a contested space. Arguments are continually put forth about what the Internet 'is'—what it means to and to whom. The World Wide Web, the most popular of Internet applications, is the very space/medium in and through which such contestations over meaning are largely played out: the Internet has become a self-referential battleground over everything from representation and hate speech to access to knowledge and democratic and activist organisation. Thus, it almost becomes impossible to approach any discussion of the Internet without first taking a side on something: copyright, pornography, youth, surveillance, commerce ... the list goes on. That said, I am not making a claim to objective neutrality here. Indeed, any act of writing is to a greater or lesser degree an act of interpretation. Rather, I suggest that because of my involvement in many of the sites discussed here I can offer a detailed overview of the types of activities and issues that occur on private BitTorrent sites and do so in such a way that others might be able to reinterpret my findings and generate new thought about media piracy, which is, in fact, the ultimate goal of this thesis.

The inclusion of such a lengthy description of the inner workings of public and private BitTorrent sites can itself raise concerns about the balance between my ethnographic observations and my subsequent theorisation of these observations. This potential imbalance is itself informative about the variety of ways in which one can render descriptions of online phenomena while at the same time attempting to contextualise and interpret these phenomena within broader social, cultural, and economic structures. In my effort to first describe and then theorise the interrelations of public and private BitTorrent sites in their totality, the seemingly sharp delineation between the more empirical first five chapters and the more theoretical final two

⁵⁵ David Graeber, *Direct Action: An Ethnography* (Oakland, CA: AK Press, 2009), p. vii–viii.

chapters reveals some potential limitations.

First, an integration of theory and description would perhaps allay perceptions that the initial chapters are meant to be 'unbiased' or 'objective'. In fact, I have made particular decisions about what to foreground and what to omit in my descriptions of the various sites. In the case of the discussion of private site forums in Chapter Five, for example, I emphasise the role of authority and regulation while I omit any in-depth discussion of the content of the forums. Another approach may have been to analyse the types of discourses that emerge amongst private site members in an effort to reveal and interpret any ideological orientations that may develop on such sites, any differences between sites, and any inconsistencies and contradictions that might emerge between members' actions and their thoughts and discourse about these actions. In the case of the all-important 'share ratio' and the discussion of seedboxes in Chapter Six an equally productive approach would be to provide further analyses of the economics of private sites. Such an analysis might discover and scrutinise the emergence of inequities in access and the role of competition in the complex system of user classes and statuses that undergird and facilitate the enforcement of the share ratio. There is also little attention paid to the 'real lives' of site administrators and moderators—those who hold much of the authority and power at private sites. In part this is due to the secrecy of private sites and administrators' desire to remain anonymous. However, I might also have included greater theorisation of the role that trust plays, especially in relation to donations and the real-world economics of operating a private site. These are examples of where an integrated theorisation of specific facets of public and private filesharing may better comprehend the diversity and theoretical richness of the structures that support such activity.

Second, the separation of the lengthy description of public and private sites and its subsequent theorisation is meant to indicate the complexity of BitTorrent practices online. Through attention to the specific details of each site I aimed to knit these details together in a manner that comprehends the broad similarities and differences that make up the collection of these sites in their totality. However, such a separation potentially reifies this diversity and gives the impression that BitTorrent filesharing is somehow a static phenomenon that can be apprehended in its totality, as if the organisational structures of public and private filesharing are purely a reaction against the dominance of capital rather than the product of an ongoing process of reflexive adjustment and alteration. Making it appear that piratical practices are somehow independent of

theorising those practices potentially gives the (incorrect) impression that there is little reflexivity within public and private BitTorrent communities. As is evident in the discussion forums, news sites, and blogs that are concerned to report on and discuss piracy, pirates are themselves engaged in a form of praxis, describing, analysing, and reflecting on piracy's position within larger social, economic, and cultural paradigms. A more integrated approach that simultaneously describes and theorises the various dimensions of public and private BitTorrent sites might approach a more accurate representation of the rich processes of self-reflexivity that constitute piratical practices and the development of the organisational strategies that make up the fledgling institutions that facilitate those practices.

Nonetheless, I think that the separation is useful in many ways. The ethnographic sections offer to those unfamiliar with BitTorrent filesharing a sense of the bewildering specialised technical knowledges, cultural and social conventions, and social relations that make up this field of practice. A holistic description emphasises that filesharing is anything but a rampant free-for-all and that, in fact, it requires and indeed rests on an identifiable and knowable set of social arrangements, technical knowledges, and cultural sensitivities in order that it continue to function. Furthermore, it is my hope that by presenting such a broad and detailed description I can somehow share with the reader the immense fascination I have with the processes involved in the sites' day-to-day operation and usage. The sheer impressiveness of the capacities of human beings to create such organisational structures largely for the purposes of enjoyment and pleasure is itself noteworthy.

Theorising BitTorrent Media Piracy: Autonomist Marxism

The final two chapters of the thesis are concerned to theorise public and private BitTorrent media piracy through the lens of Autonomist Marxism and Autonomist Marxist-inspired theory. Autonomism is a variant in the Marxist tradition that grew of the workerist or *post-operaismo* movement in Italy in the 1960s, which was largely concerned to see workers as active agents within capital, the motor of its generation, and thus crucial to capital's undoing. Autonomists were concerned to trace changes in the composition of capital, its expansion outward from the factory into facets of everyday life, and particularly the role that technology played in domination over workers. 'What makes their perspective peculiarly notable', notes Nick Dyer Witheford, 'is that it grasps the new forms of knowledge and communication not only as instruments of capitalist

domination, but also as potential resources of anti-capitalist struggle'. The capacity of new forms of knowledge and communication to resist capitalist domination is of particular relevance to this thesis because it seeks to identify those aspects of media piracy that are oriented toward capital's undoing and to assess the various ways that this orientation is supported and subverted by actual piratical practices.

As Dyer-Witheford notes, a 'salient feature of ['postmodern capitalism', 'post Fordism', etc.] is generally agreed to be the extensive deployment by capital of information technologies—computers and telecommunications—in order to achieve unprecedented levels of workplace automation, global mobility and societal surveillance'.⁵⁶ Such a deployment is clearly witnessed in the media industries' restructuring around the production and distribution of digital media commodities, such as music and video. The intensification of efforts to harness the speed and reach of digital media distribution platforms has given rise to variety of strategies for profiting from the distribution of digital media, from paid and advertising-supported subscription services to digital rights management. Each of these features, I argue, has given rise to an additional, and potentially more intense, commodification of the audiences consuming such media. In this scenario capitalist accumulation strategies expand into more and more dimensions of everyday life. As a theoretical tool, Autonomist Marxism seems particularly well suited for helping to understand the ramifications and effects of such intensified uses of technologies within capitalist command and control, but not just as a means of critiquing such processes. Autonomist Marxism is also particularly sensitive to the ways in which such technologies are open to reconfiguration. Thus, as I note throughout this thesis, the capacities for human beings to reconfigure and redirect technologies in directions that can at times be in opposition to capital's goals, can be productively analysed through the lens of Autonomist Marxist perspectives on immaterial labour, the refusal of work, and the common.

However, Autonomist Marxism is not without its critics. One of the primary critiques levied against contemporary Autonomist-inspired perspectives is that they lack empirical grounding, and as such often operate at the level of discourse and language. For example, the traditional Marxist proletariat is abstracted further as the 'multitude' and the concept of a clearly definable (factory) labour class is, moreover, recast as a

⁵⁶ Nick Dyer-Witheford, *Autonomist Marxism and the Information Society* (Canberra: Treason Press, 2004), 5.

collection of ‘singularities’ engaged in forms of affective labour.⁵⁷ I would argue that reducing the important work of Autonomist and Autonomist-inspired theorists to a collection of language games is perhaps too drastic, especially since Marx himself was highly concerned with working through and collecting a clear language with which to understand the complexities of emergent industrial capitalism (evident in the great deal of time spent defining what constitutes a commodity, money form, etc.). However, the accusations of abstraction gain significant purchase and are particularly acute when considering media studies and cultural production, such that David Hesmondhalgh can claim that ‘Autonomist Marxism’s greatest weakness is that it lacks an empirical engagement with the specifics of cultural production’.⁵⁸ To this I would add that there is a similar blindspot in the area of cultural distribution, especially with regard to the various creative ways that people and groups develop for circulating amongst themselves media ‘products’—the texts, images, movies, television programmes, and recorded music made by those involved in their direct creation. Thus, by focussing on public and private BitTorrent filesharing cultures, this thesis brings to Autonomous Marxism a useful empirical example of some of the Autonomists principles. It points to a contemporary phenomenon that at once gives concrete form to the potential for autonomous action with regard to media distribution, while it also, I hope, allays some reservations about the Autonomists overly utopian and abstract conceptualisation of human agency within contemporary capitalism.

Autonomist Marxism is also often criticised for dispensing with, or at least diminishing, the role that organised and cohesive resistance plays in the project of emancipation from capital. A collection of singularities that are seemingly pre-disposed to disruptive autonomous action—but who are suppressed by capital’s command and control—do little, it is argued, to address the more large-scale systemic injustices that characterise contemporary capital. At base such a critique notes that just because humans are capable of productive and creative activity outside of capital, does not mean that capital is not capable of exploiting such capabilities in an organised fashion.⁵⁹ Instead, a crucial component of resistance to capital is said to be the explicit formation of organisations directed toward capital’s dismantling. Indeed, this is precisely what is

⁵⁷ Paul Thompson, ‘Foundation and Empire: A Critique of Hardt and Negri’, *Capital and Class*, 86 (2005), 39-64.

⁵⁸ David Hesmondhalgh, ‘Cultural and Creative Industries’, in *The Sage Handbook of Cultural Analysis*, ed. by Tony Bennett and John Frow (Thousand Oaks, CA: Sage, 2008) pp. 552–569 (p. 566).

⁵⁹ Alex Callinicos, ‘Regroupment and the socialist left today’, *Links International Journal of Socialist Renewal* <<http://links.org.au/node/66>> [accessed 3 August 2012].

happening within the sphere of cultural distribution: capital restructures to offer media consumers greater flexibility and ‘freedom’ through online distribution, all the while profiting from the collection and sale of immense amounts of data about these consumers—who willingly, if not consciously, accept the exchange of personal information for access to digital media. Capitalist accumulation strategies continue while, as Thompson argues with regard to those who are caught up as the subject and object of accumulation, ‘[t]his search for an economic actor inside the hidden abode of production, who is then required to be a transcendent political subject with the responsibility of changing the whole society, creates an impossible practical and theoretical burden’.⁶⁰

My thesis may thus indirectly offer the figure of the contemporary media pirate as a kind of accidental yet powerful revolutionary actor. This is for me one of the greatest limitations of focussing primarily on Autonomist political economic categories and in fact might also leave in place a more specific empirical blindspot, one that neglects to consider pirates’ own perspectives. What would be perhaps better suited in this regard is a theoretical perspective drawn from cultural studies that is more sensitive to the ways pirates take themselves up in relation to sweeping changes within the digital mediascape. Perhaps such a perspective could analyse discourses within online forum discussions on the topic of piracy. In such a way, I might avoid giving the impression that pirates themselves are a homogeneous group primed for revolutionary overthrow of copyright and digital immaterial labour conditions. A mere glance at a public or private BitTorrent forum reveals that this is far from the case. On the other hand, the Autonomist perspective does allow for seeing the various and often contradictory contours of the larger systemic challenge that piracy mounts, whether or not such a challenge is the product of self-conscious ‘revolutionary’ activity.

Relatedly, since the Autonomist perspective tends to eschew the more traditional Marxist political action associated with vanguard political parties, my perspective does not include detailed analyses of the variety of institutional actors—from state regulators, international trade agreements, media companies, copyright activist groups, etc.—that are invested in shaping the distribution of cultural production in the era of the Internet. This is partially by design, since the thesis is primarily concerned to describe the human activity involved in creating and maintaining burgeoning oppositional strategies for autonomously curating and facilitating the distribution of digital media and to analyse

⁶⁰ Thompson, p. 92.

the effects of this activity. However, in accounting for the richness of BitTorrent filesharing practices, it was necessary to minimise focus on these larger institutional structures. It would be instructive to analyse the relations between the powerful state and corporate institutions of capitalist power and the variety of copyright activist organisations like the Piratbyrå, the Pirate Party International, and the various national pirate parties.⁶¹ Such an approach could provide a fuller understanding of the tensions and potential contradictions between the actions of individual filesharers and the emergent institutional structures that purportedly seek to represent the ‘values’ and interests of pirates.

Finally, such an overarching focus on the concepts of immaterial labour, the social factory, the refusal of work, and the common does little to apprehend the still very material and highly exploitative and environmentally disastrous conditions that undergird a society so embedded within digital networks. Overemphasising the revolutionary potentials of the refusal of immaterial labour in certain forms of piracy and, moreover, of the redirection of the productive capacities of informationalised subjects towards the creation of autonomous fields of action elides consideration of the labour of: the computer factory worker, the columbite–tantalite miner, the shipping truck driver, the phone and cable line maintenance worker, the low-paid service worker at the computer shop, and so on. In fact, it might be possible to argue that the informationalised audience commodities I discuss below are but an interim step in the process of extracting surplus value from the globalised *material* labour force that provides the basic functionality of the Internet. So, quite aside from having moved into an ‘informational economy’, one might object that the materiality of labour power has simply been made less visible to the northern-Western eye. Material labour conditions are still highly relevant, but are minimised in this thesis in favour of analysing the activity of relatively privileged ‘netizens’, for whom the social relations that lie behind their networked devices have become ever more mystified. Capital continues traditional forms of exploitation of some while offering a supposed digital freedom to others, all the while expanding efforts to commodify the latter’s affective and informational labour.

Chapter Six traces the shifts in legal online music distribution, which has increasingly focussed on the audience as a site for the valorisation of surplus value. This shift in focus is what Patrick Burkart and Tom McCourt, among others, call the

⁶¹ See for example *PP International* <<http://www.pp-international.net/>> [accessed 3 August 2012].

emergence of a 'Celestial Jukebox', which is an always available and profitable means for the distributing cultural production that relies on surveillance and data collection.⁶² Users of the Celestial Jukebox become informational commodities as they submit personal data, have their listening habits and preferences tracked, and attend to advertising. As commodified audiences, they embody what Dallas Smythe called, in his seminal chapter 'On the Audience Commodity and Its Work', 'audience power', and they perform 'audience labour'.⁶³ The audience's labour is part of a much wider social and economic shift that, from the Autonomist Marxist perspective, is seen as the rise to prominence of 'immaterial labour', or that labour that is involved in the creation of information, code, knowledge, and affects.⁶⁴ The rise of immaterial labour is part of the broader expansion of capital and market logics deeper and deeper into more areas of life. This is what Autonomists call the 'social' factory. Public sites, much like the legitimate venues that make up the celestial jukebox, also valorise their audiences through the use of advertising revenue as a means of covering operating costs and potentially generating profit. As a result, public sites, though they refuse commodification in one way, by rejecting intellectual property, end up reinforcing it in another, by valorising audiences. For Autonomists, the refusal of work is an enduring strategy for resisting capitalist valorisation. This chapter argues that private BitTorrent filesharing, which eschews advertising, performs a type of refusal of immaterial labour by creating autonomous advertising-free spaces for the distribution of cultural production. However, these sites are only able to do so by reinforcing another problematic aspect of capital, exclusion. Thus, though a refusal is mounted, it is only partial.

Chapter Seven picks up where Chapter Six left off, and inquires into the actualisation of the refusal of immaterial labour by looking to media piracy's relation to theories of 'the common'. This chapter is primarily concerned to analyse how, as experimental 'institutions of the common', public and private sites simultaneously support and subvert the generation of what Cesare Casarino calls 'surplus common'. The chapter takes up perspectives on the commons that emerge from the Autonomist Marxist tradition which hold that the common names the knowledges, ideas, codes, affects, and so forth that are a precondition for all productive activity. The common is

⁶² Burkart and McCourt, *Digital Music Wars*.

⁶³ Dallas Walker Smythe, 'On The Audience Commodity and Its Work', in *Dependency Road: Communications, Capitalism, Consciousness, and Canada* (Norwood, NJ: Ablex, 1981), pp. 22–51.

⁶⁴ Hardt, 'The Common in Communism'.

always under threat of expropriation by capital, and in fact, capital has come to rely more and more on valorising as private surplus value that which has been produced in common.⁶⁵ Thus, an essential component of mounting an exodus from capital is the creation and maintenance of institutions that are oriented toward the production of the common and not toward the production of private surplus value. I analyse public and private sites through Cesare Casarino's tripartite understanding of the essential articulations of the common, which are: the 'the common-for-others', seen here as the common of access to cultural production or the 'objects' of digital media piracy; 'the common-in-itself', here understood as the capacity for public and private sites to create autonomous spaces of productive activity that facilitates the 'common-for-others', and; 'the common-for-itself', which in terms of media piracy looks to the ways that public and private sites nurture the emergence of subjectivities that are amenable and committed to the creation, expansion, and maintenance of the common.

⁶⁵ Michael Hardt and Antonio Negri, *Commonwealth* (Cambridge, MA.: Belknap Press of Harvard University Press, 2009).

CHAPTER TWO: THE BITTORRENT PROTOCOL

INTRODUCTION

This chapter is concerned to introduce the BitTorrent protocol, which is the principal technology that drives much of the piracy discussed throughout this thesis. Though BitTorrent itself is not the primary focus here, it is necessary to offer some details about the protocol. First, its historical emergence is crucial, since it emerged as a second-wave peer-to-peer technology following the demise of Napster in the early 2000s. Second, the uptake of the technology has been immense, it is one of the primary means for sharing copyrighted material online and it also drives many mainstream and commercial products that need to transfer large amounts of data. I begin with a brief introduction to the technology and its creator, Bram Cohen. I then follow with some details about the technologies adoption by filesharers and media pirates. I then offer some description of the technical elements of BitTorrent, the importance of 'trackers', and finally terminology associated with BitTorrent filesharing that will be used throughout the remainder of the thesis.

BITTORRENT

The BitTorrent peer-to-peer protocol was developed in 2002 by software engineer Brahm Cohen who had spent much of his early career working at various failed dot-com-era startups. Cohen said of his motivation to write the BitTorrent protocol, 'You get so tired of having your work die [...] I just wanted to make something that people would actually use'.¹ Cohen's invention took off rapidly with 20 million downloads in the first three years.² The BitTorrent protocol became one of the most popular and effective means of sharing media content online; it was especially effective for sharing unlicensed copyrighted material. Cohen founded a company called BitTorrent Inc., which has since secured venture capital and registered the name BitTorrent as a trademark. As an attempt to shed its associations with media piracy, BitTorrent Inc. started a paid content video store that it soon folded due to lack of profitability, which was spurred on by problems with movie studio licensing requirements that restricted much of the content with Digital Rights Management

¹ Clive Thompson, 'The BitTorrent Effect', *Wired*, 2005
<<http://www.wired.com/wired/archive/13.01/bittorrent.html>> [accessed 9 February 2012].

² *Ibid.*

(DRM). The inclusion of DRM made it very difficult for customers to play media for which they had paid because of interoperability issues and difficulties shifting file formats and playback devices.³ Since then, the company has also entered into partnership with various network technology companies to implement the protocol into network hardware such as router manufacturers D-Link and NetGear, and, QNAP Systems, which trades in network storage and surveillance equipment.⁴ Increasingly, BitTorrent, Inc. has taken steps to distance the company's association with piracy and copyright infringement. Cohen himself is careful to note that he does not participate in copyright infringement and demurs: 'I kind of view copyright as this fight I didn't ask to be in'.⁵ BitTorrent Inc. CEO Eric Klinker shifts the focus from BitTorrent's usage in media piracy when he says, '[t]here are plenty of legitimate uses for BitTorrent. People are starting to see BitTorrent as a good way of moving their own media around, videos they might shoot with an iPhone, for example'.⁶ And indeed, as the *Financial Post*'s Matt Hartley notes, BitTorrent, Inc. is fully embedded within the financial and corporate logic of Web 2.0 since '[t]here are a number of companies that use BitTorrent to distribute large files, including Facebook Inc., Twitter Inc. and even video game maker Activision Blizzard Inc., which uses a version of the technology to distribute software updates for the popular online video game *World of Warcraft*'.⁷

But Cohen and BitTorrent Inc. are hardly central to filesharing culture, its technological development, or to debates about media piracy and intellectual property. The company exists now as just one among many technology firms that are trying desperately to find ways to monetise their Internet technologies. The proliferation of a variety of freely accessible implementations of the BitTorrent software, owing to the fact that the initial code is open source, has been much more central to expanding opportunities for Internet users to share content. The corresponding explosion of a variety of websites, search indexes, news sites, blogs, and other technologies has only intensified these opportunities. What ultimately distinguishes Cohen's innovation from other peer-to-peer protocols and what makes it an ideal technology for filesharing,

³ Ernesto, 'BitTorrent Shuts Down Video Store, Brings Back Search', *TorrentFreak*, 2008 <<https://torrentfreak.com/bittorrent-shuts-down-video-store-brings-back-search-081207/>> [accessed 9 February 2012].

⁴ 'Technology Partners', *Bittorrent.com* <<http://www.bittorrent.com/company/partners>> [accessed 9 February 2012].

⁵ Matt Hartley, 'BitTorrent Turns Ten', *Financial Post*, 1 July 2011, section FP Tech Desk <<http://business.financialpost.com/2011/07/01/bittorrent-turns-ten/>> [accessed 9 February 2012].

⁶ *Ibid.*

⁷ *Ibid.*

copyright infringing or otherwise, is that the cumulative technical capacity of all connected computers is harnessed in order to share data more efficiently. This is distinct from the more traditional ‘client-server’ model, upon which most web communication was and is still based and in which the speed of data transfer is limited by the speed and bandwidth of the connection between the source (server) and destination (client).

BITTORRENT USAGE

BitTorrent is ‘open source’, meaning that the programming code for the protocol is freely available to anyone that wishes to modify the source code to improve upon the design of existing BitTorrent ‘clients’, which is the software that filesharers use to connect to each other. There are numerous BitTorrent clients, but among the most popular are the official client known as BitTorrent or ‘mainline’ (developed and maintained by BitTorrent, Inc.), Vuze (known for much of its life as Azureus), BitComet, Transmission, and μ Torrent (which was acquired by BitTorrent Inc. in 2006 and is officially known as ‘micro’-torrent, after the International System of Units symbol, though more commonly pronounced ‘u’-torrent).⁸ Not all clients are open source, but most are available for no cost. Clients are written in a variety of programming languages and are available for all of the major personal computer operating systems with some clients being ‘cross-platform’, meaning that they can be used on any operating system. Though most torrent client user interfaces are written in English—the norm for most Internet-related software—the more popular among them are available in a variety of languages.

All clients are capable of connecting to other BitTorrent clients, but each is distinguished by its own set of features. Though there was a great deal of diversity in these features among the early iterations of many of today’s most popular clients, recently client designs have converged on a similar set of elements. Most are capable of sharing many files at one time; most offer options for controlling bandwidth use; some offer additional web-based clients (meaning that users can remotely control the client from any computer via a web interface); some offer ‘terminal’ or ‘command line’ operation (meaning that they are not graphical interfaces but are controlled through written set of computer commands); and some offer the ability to search for files online and automate sharing via Really Simple Syndication (RSS), which allows users to

* ‘ μ Torrent Plus’, *Utorrent.com* <<http://www.utorrent.com/cm/utorrent-plus/>> [accessed 9 February 2012].

subscribe to particular torrent sites or particular types of torrents.⁹

As with many free software revenue strategies, some client providers recoup costs by featuring embedded advertisements while others have entered into licensing agreements with commercial entities to provide 'opt-out' advertising or services. Such advertising and services usually come in the form of parallel installation of additional software. For example, at installation time μ Torrent offers the end user the option to download and install a browser toolbar from *Ask.com*, a commercial World Wide Web search service. The presence of advertising is a matter of some contention among free and open source software, small websites, and peer-to-peer enthusiasts. For example, in reference to the much-maligned BitComet client, Jared Moya of the filesharing news site *ZeroPaid* opines with a moral admonition: 'The program sports annoying in-client ads as well as taskbar ad popups that wholly ruin the *sanctity* of P2P'.¹⁰ Moya's statement clearly links peer-to-peer activity with the type of anti-commercial sentiment that has become associated with piracy more generally, which is that peer-to-peer practices offer a potentially revolutionary new way for democratising access to information through the provision of media without concern for profit. However, objections are often raised that advertising and affiliate marketing are necessary for small Internet operations to continue to provide their software or services for free. For example, Matt Smith, who writes for the popular 'how to' website *makeuseof.com* suggests that advertising is what allows most Internet users to enjoy the myriad of content available online for little to no cost. In a discussion about popular 'ad blocking' Internet browser extensions, which allow users to personally tailor their web surfing by selectively blocking the appearance of advertising, he suggests that '[a]nyone who is choosing not to view the ads on a site is making a deliberate choice not to support the site in question'.¹¹ I'll take up the issue of advertising in detail in Chapter Six, where I argue that one of the crucial elements of certain forms of online media piracy is their capacity to refuse advertising, which is at base a form of audience commodification.

⁹ See Paul Gil, 'The Best Torrent P2P Software, 2012', *Internet for Beginners* <http://netforbeginners.about.com/od/peersharing/tp/best_torrent_software.htm> [accessed 9 February 2012] and Adam Pash, 'Five Best BitTorrent Applications', *Lifehacker*, 2008 <<http://lifehacker.com/5051416/five-best-bittorrent-applications>> [accessed 9 February 2012].

¹⁰ mr6n8, 'Best Free BitTorrent Client', *Techsupportalert.com*, 2011 <<https://www.techsupportalert.com/best-free-bittorrent-client.htm>> [accessed 9 February 2012]; Jared Moya, 'Top 5 BitTorrent Clients for Windows', *ZeroPaid*, 2011 <<http://www.zeropaid.com/news/94638/top-5-bittorrent-clients-for-windows/>> [accessed 9 February 2012].

¹¹ Matt Smith, 'Are Ad Blocking Browser Extensions Killing The Internet?', *MakeUseOf*, 2011 <<http://www.makeuseof.com/tag/ad-blocking-browser-extensions-killing-internet/>> [accessed 9 February 2012].

In the wake of the various music-industry sponsored lawsuits in the early 2000s, BitTorrent largely replaced other popular protocols, such as Napster, the various Gnutella clients, eDonkey, and Audiogalaxy, as the dominant means for peer-to-peer filesharing in the late 2000s.¹² BitTorrent clients have been downloaded by millions of users, with estimates that μ Torrent alone was installed on over 11% of all European Windows-based PCs in 2008, and by January 2011 both μ Torrent and the mainline BitTorrent client saw a combined total of some 100 million monthly users and commanded '21.6% of North American Internet traffic, and 94% of all peer-to-peer traffic'.¹³ Some estimates suggest that BitTorrent traffic has at points represented one third of all Internet traffic, and depending on geographic location, can be up to 70%.¹⁴ BitTorrent's popularity has led to some hyperbolic, but not necessarily inaccurate, statements about its importance to filesharing and media distribution, as when Michael Calore of *Wired* offers BitTorrent as the 'world's greatest peer-to-peer file sharing protocol'.¹⁵ And though at the time of writing BitTorrent is not currently the most popular means for obtaining music or video content online—an honour reserved for 'cyber lockers' or 'file lockers', which are advertising- and subscription-driven client-server models—it nonetheless remains the most used form of peer-to-peer filesharing.¹⁶

Currently, 'file lockers' or 'cyber lockers' are the most popular means for transferring copyright-infringing music online. With them, a single user can upload music files to the service, which stores the material on its servers. The user can then

¹² See Siva Vaidhyanathan, *The Anarchist in the Library: How the Clash Between Freedom and Control Is Hacking the Real World and Crashing the System* (New York: Basic Books, 2004), pp. 43-44, Michael Strangelove, *The Empire of Mind: Digital Piracy and the Anti-capitalist Movement* (Toronto: University of Toronto Press, 2005), pp. 56-57, Gwendolyn Mariano, 'Audiogalaxy to Ask First, Trade Later - CNET News', *CNET*, 2002 <<http://news.cnet.com/2100-1023-936932.html>> [accessed 25 February 2012], and 'Kazaa Site Becomes Legal Service', *BBC News*, 27 July 2006, section Technology <<http://news.bbc.co.uk/2/hi/5220406.stm>> [accessed 25 February 2012].

¹³ Ernesto, 'Filesharing Report Shows Explosive Growth for uTorrent', *TorrentFreak*, 2008 <<https://torrentfreak.com/p2p-statistics-080426/>> [accessed 9 February 2012]. See also Leena Rao, 'BitTorrent Hits 100M Active Monthly Users, 400K Client Downloads Per Day', *TechCrunch*, 2011 <<http://techcrunch.com/2011/01/03/bittorrent-hits-100m-active-monthly-users-400k-client-downloads-per-day/>> [accessed 9 February 2012] and Hartley.

¹⁴ See Thompson and Hendrik Schulze and Klaus Mochalski, 'Internet Study 2008/2009', 2009 <<http://www.ipoque.com/resources/internet-studies>>.

¹⁵ Michael Calore, 'The Best of BitTorrent', *Wired*, 2006 <<http://www.wired.com/software/softwarereviews/news/2006/10/71979>> [accessed 9 February 2012].

¹⁶ The recent high profile shutdown of MegaUpload and the arrest of its primary stakeholders in January of 2012 has placed the future of file-lockers in doubt. See Melanie Jones, 'Why Kim Dotcom Has a Case: The Truth Behind The Megaupload Indictment', *International Business Times*, 2 February 2012 <<http://www.ibtimes.com/articles/292088/20120202/kim-dotcom-megavideo-megaupload-indictment-youtube.htm>> [accessed 9 February 2012]. Several other services have shut down in the wake of the arrests. See 'Megaupload Shutdown Means Other Companies Turning Off Useful Services', *Techdirt*, 22 January 2012 <<http://www.techdirt.com/articles/20120122/23343817505/megaupload-shutdown-means-other-companies-turning-off-useful-services.shtml>> [accessed 25 February 2012].

publish a link—most often on a blog, via Twitter, or in an online forum. File lockers offer advertising-supported slower download speeds for free and faster speeds for a monthly subscription fee. Video, on the other hand, is increasingly obtained via advertising-supported streaming websites, some of which act as robust search engines for finding video content online, such as *1channel* or *QuicksilverScreen*, and others that host video files directly, such as *Sockshare* or *Putlocker*.¹⁷ Through these sites, viewers can search for and watch television shows and movies without having to first download the files. The popularity of file lockers and video streaming sites is important because they have overtaken peer-to-peer as primary means for obtaining media and they are considerably more commercial, proprietary, and do not emphasise the collaborative and participatory aspects of filesharing that characterise peer-to-peer mechanisms. Such a development raises questions about piracy's role in intensifying the commodification of audiences through advertising. Crucially, even though these sites are considered by the mainstream media industries as contributing to media piracy, they do so in a much different way than peer-to-peer generally, and BitTorrent more specifically. Leaving aside for the moment the fact that unlicensed copyrighted material is shared via these services, as commercial enterprises they are almost identical to the more 'legitimate' means of online media distribution and consumption: *iTunes* requires registration in order to purchase music or video, Spotify is a monthly based subscription service powered initially by advertising, and NetFlix employs streaming as a means for subscribers to consume video. In this way, piracy is beginning to overlap significantly with legal online media distribution; this raises questions about piracy's emancipatory potential and whether it does in fact contribute to the increased democratisation of access to information. These are crucial points of analysis that I take up in chapters Six and Seven.

TECHNICALITIES

For the novice filesharer, especially one who is used to peer-to-peer software like Kazaa or Limewire, BitTorrent can be a rather daunting experience. There is specific terminology, the need to gain knowledge of specific websites where one can

¹⁷ 'LetMeWatchThis | 1Channel - Watch Movies Online Free - Just Added', *1channel.ch* <<http://www.1channel.ch/>> [accessed 25 February 2012]; 'Share Files Easily on PutLocker', *putlocker.ch* <<http://www.putlocker.ch/>> [accessed 25 February 2012]; 'Share Files Easily on SockShare', *sockshare.com* <<http://www.sockshare.com/>> [accessed 25 February 2012]; 'QuicksilverScreen', *quicksilverScreen.ch* <<http://www.quicksilverScreen.ch/>> [accessed 25 March 2011].

find torrent content, and numerous modifications that need to be made to computers and home networks in order to make the software and protocol work together most efficiently. Creating one's own torrent in order to share it with others, and then determining *how* and *where* to share it, is an even greater challenge. These challenges have inspired countless 'how-to' blog posts and tutorials. Amongst these is a *BitTorrent For Dummies* volume; the book's blurb reveals that it will help you '[s]hare your home movies or download new software [and] [f]ind safe files to download, create your own, and use BitTorrent for business'. The book also de-emphasises the potentially illegal aspects of filesharing:

There's certainly a torrent of interest in BitTorrent! But while it enables you to download all kinds of cool files and to distribute your own creative efforts, it also carries some risks. This book not only shows you how to acquire BitTorrent, but also how to use it without picking up worms, viruses, and lawsuits.¹⁸

Ironically, the publisher of the 'For Dummies' series, John Wiley and Sons, has recently filed a mass lawsuit, the first of its kind, against thirty-six BitTorrent users in the United States who were accused of sharing digital versions of several of the publishers 'For Dummies' books.¹⁹ The book, and the various online tutorials largely cover only the technological elements of BitTorrent. Negotiating the culture surrounding BitTorrent filesharing is another matter entirely, and indeed describing and theorising this culture is one of the main tasks of this thesis. For now, I continue with an introduction to the technical and terminological elements of BitTorrent software in an effort to prepare the reader with some technical terminology that will be used throughout this thesis.

BitTorrent is a decentralised means of transferring large files between a heterogeneous collective of participants known as 'peers' that form a totality known as a 'swarm'. BitTorrent terminology draws a distinction between 'seeders' and 'leechers', who together form the group of peers—the swarm—that are involved in the file transfer. At first, seeders are those end-users who 'announce' to a 'tracker' that they are sharing media via their BitTorrent client. The tracker is basically a communications hub that may or may not have an accompanying searchable website. I will describe how a tracker functions in a moment. Users announce by first creating a '.torrent' file (using the

¹⁸ Susannah Gardner and Kris Krug, *BitTorrent For Dummies*, 1st edn (For Dummies, 2005).

¹⁹ Ernesto, "'For Dummies' Publisher Sues BitTorrent Users to 'Educate and Settle'", *TorrentFreak*, 2011 <<https://torrentfreak.com/for-dummies-publisher-sues-bittorrent-users-to-educate-and-settle-111215/>> [accessed 9 February 2012].

BitTorrent client to do so) that contains necessary information to allow other users to connect to that seeder and, eventually, to one another. This is accomplished by using the client to select a collection of media to be shared, a few MP3s, an entire folder of audio files with accompanying image files of CD artwork, an entire DVD boxed set, or software suite, all of which is drawn from the user's computer. Most importantly, the .torrent carries information about the media to be shared (audio, video, text, images, or software). In the case of music, a torrent file might contain information about track titles and durations, their file type, their individual size, the size of the entire collection of tracks, and accompanying cover art; in the case of film, similar information would be included in addition to information about accompanying subtitle files, trailers, promotional materials, and in the case of a DVD 'rip', any 'extras', or included cover art. Note that unlike other peer-to-peer applications, which normally share only one type of content in a single media transfer (unless media transferred is a compressed archive of different media types, which it usually is not), the media shared through a single torrent file can include a variety of different media types at one time. Finally, it is crucial that the torrent file include information about the tracker(s) and, if required, any security or identification information needed to authenticate the end user to the tracker. The latter identification process is crucial in private filesharing; I will expand upon this in a moment.

TRACKERS

Trackers are crucial to the operation of BitTorrent filesharing. In fact, trackers are the focal point for much of the contestation around the politics and economics of media piracy, which I am concerned to analyse throughout this thesis. Trackers are so important because they facilitate communication between peers in a torrent swarm by identifying those peers to one another. Once a connection has been made, however, the tracker plays no role in the actual file transfer since files are transferred directly between peers. Trackers do not host torrent files, nor do they host media content; they 'point' interested parties toward other interested parties, thus helping connect leechers to seeders. This characteristic of trackers has been a crucial point of contention in the many lawsuits that have been brought against torrent tracker operators. For example, in the early stages of the legal troubles of *The Pirate Bay*, the most popular publicly accessible BitTorrent search index, the site's operators argued that they only provided the service for users to share media with one another. The site itself did not host nor

transmit any copyright-infringing material, and therefore the owners could not be considered guilty of copyright infringement.²⁰ Though torrent files could just as easily be emailed to other users or transferred via USB stick or other removable media, torrent index websites are where users can upload, search, and download the torrent files in order to participate in the transfer of media. While some public BitTorrent indexes do run their own trackers, most do not. Notably, *The Pirate Bay* used to run its own tracker software, but eventually shut down their tracker in 2009, likely a result of the realisation that their legal troubles could be attenuated by shifting tracking duties away from their own operations and citing that developments in more decentralised forms of tracking, such as Distributed Hash Tables (DHT or 'trackerless torrents'), had made such centralised tracking functionally obsolete.²¹ Many torrents are now tracked via freely accessible public trackers such as *OpenBitTorrent* and *Public BitTorrent*, where users simply include in the torrent file the information associated with either of these trackers and then upload the torrent to a public index.²²

Trackers are even more crucial to the operation of private or members-only torrent indexes. This is because these trackers are inaccessible unless an end user is a member of the site. Torrent files that are shared on private sites cannot be found using an Internet search engine, and thus these sites form a part of what is known as the 'DarkNet'.²³ In a private site, a user is assigned a unique 'passkey' that authenticates them as a member of the site when involved in a file transfer with (and only with) other members. This authentication is crucial, because, as I will describe in more detail in the chapters Four and Five, private sites require that members upload a certain percentage of what they download from the site. Without the centralised mechanism of the tracker, it would be impossible to calculate the ratio of upload to download, and thus the entire

²⁰ Gottfrid Svartholm, one of the Pirate Bay founders highlighted this point when he said of the industry groups that were writing to the site with take-down requests: 'They still don't understand that they have to write to the persons who share the material, not us'. See 'Editorial: Trial Shows Pirate Bay's Crew Is All Hat and No Rum', *Wired*, 2009 <http://www.wired.com/politics/onlinerights/news/2009/03/piratebay_editorial> [accessed 25 February 2012]. See also enigmax, '50% of Charges Against Pirate Bay Dropped', *TorrentFreak*, 2009 <<https://torrentfreak.com/50-of-charges-against-pirate-bay-dropped-090217/>> [accessed 25 February 2012].

²¹ Thomas Mennecke, 'The Pirate Bay Trackers Go Offline Forever', *Slyck News*, 2009 <http://www.slyck.com/story1880_The_Pirate_Bay_Trackers_Go_Offline_Forever> [accessed 9 February 2012].

²² See 'OpenBitTorrent - An Open Tracker Project', *OpenBitTorrent* <<http://openbittorrent.com/>> [accessed 12 February 2012] and 'PublicBitTorrent - An Open Tracker Project', *PublicBitTorrent* <<http://publicbt.com/>> [accessed 12 February 2012].

²³ Peter Biddle and others, 'The Darknet and the Future of Content Distribution' (presented at the 2002 ACM Workshop on Digital Rights Management, Washington, DC, 2002) <http://www.bearcave.com/misl/misl_tech/msdrm/darknet.htm> [accessed 9 February 2012].

logic of reciprocity that comes to define a private tracker would be moot. In any case, the general method for sharing via BitTorrent, described below, is largely identical between public and private trackers.

After creating a torrent file, an uploader will visit one or more torrent indexes and upload that torrent file to them. On a public site, this typically means visiting the upload page, attaching the torrent file, and typing in some details about the torrent. Such details might include the title of the media content to which it pertains, the 'category' for the upload (music, video, software, etc.), tags to further identify the content of the media, and finally a description, which may include a track listing, plot summary, and the like. Depending on the site the amount of detail will be more or less expansive. It is typical for more detail to be requested on private sites. For example, at one major private music site, the upload page includes fields for artists, album title, year of release, optional fields for record label and catalogue number, release 'type' (full-length album, EP, single, and so forth), edition information (limited or region-specific releases), audio format, bit rate, the original media format (i.e. CD, DVD, DAT, etc.), tags, cover image URL, two large open text fields for a description of the album (track list, personnel, etc.) and description of the release itself (useful for noting distinguishing characteristics between editions). All of the information that is supplied by a user when the torrent is uploaded to the index becomes part of a site's database, which is usually searchable by potential downloaders, or indexed by other websites.

SEEDERS AND LEECHERS

Following the initial upload of the .torrent file by the 'initial seeder', a 'seeder' comes more generally to be defined as any computer involved in the media transfer that possesses a complete copy of the media being transferred. 'Leechers' are those that have downloaded the .torrent file from a torrent index site and who are connected to seeders. Leechers are in the process of downloading the actual media content but do not yet possess a complete copy of the media being shared. One of BitTorrent's key innovations is that leechers can connect to as many other leechers or seeders as their client allows (and that others in the swarm allow). The thresholds and limits for how many other connections to make is configurable by the user in their BitTorrent client. The possibility of multiple connections has the positive benefit of making the file transfer more efficient because a leecher can obtain any 'chunk' of the media file from any other participant in the swarm. Though theoretically an unlimited number of peers can

participate in the file transfer, BitTorrent prioritises transfer efficiency by influencing the order in which connected peers are sent data via what is known as ‘choking’: if a peer demonstrates that it is capable of and is actually efficiently sharing data with another connected peer, then a client may first share data with that peer and not with those that are incapable of or inefficiently sharing. A BitTorrent client will ‘choke’ connections from peers that do not upload and periodically ‘unchoke’ these peers as a means of offering a second chance for them to upload. ‘Optimistic unchoking’ refers to the process of actively seeking new peers that may be better performing than other peers in the swarm.²⁴ The BitTorrent protocols preferential treatment of efficient peers has important ramifications for the speed and amount of data that is shared in any given swarm. As I discuss in Chapter Five there are also important ramifications for the economics of peer-to-peer filesharing since a users capacity to upload efficiently is directly tied to their capacity to afford high speed home connections or subscriptions to online storage and BitTorrent services known as ‘seed boxes’. In essence, because BitTorrent prefers faster connections, those connections tend to dominate most of the data transfer in a BitTorrent swarm.

The average BitTorrent user needs to know nothing about the technical aspects of the protocol because the above all happens at the level of software. Despite the initial decision to upload or download media content users rarely need intervene in the process except set limits on how fast they wish upload or download data and to start or stop their client. In fact, even these latter processes are become more automated through the use of RSS subscriptions that will automatically download particular torrents. Also, the use of remote ‘seedboxes’, which are free or paid services that provide around-the-clock seeding via off-site and network accessible storage further remove end users from engaging with filesharing beyond the initial decision to share a file.

The ability of a peer’s capacity to share is known as ‘connectability’, and in some circles ‘cleverness’.²⁵ The inability to share can be a result of the circumstances of the user’s Internet connection if, for example, it is a shared connection or it is blocked by a personal or institutional firewall or antivirus programme. Users can modify settings on their computer and modem/router in order to ensure connectability, and these tips are

²⁴ Bram Cohen, ‘Incentives Build Robustness in BitTorrent’, 2003 <<http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.14.1911>>. Seung Jun and Mustaque Ahamad note that BitTorrent is a technological form of the ‘Iterated Prisoner’s Dilemma’. See Seung Jun and Mustaque Ahamad ‘Incentives in BitTorrent Induce Free Riding’, in SIGCOMM’05 Workshops, 2005.

²⁵ As was designated at the famed SITE G private tracker, a site I will discuss more in Chapter Four.

shared freely in online discussion forums. Once a leecher has completed downloading the entirety of a file, they automatically become a seeder until they terminate their participation in the torrent swarm. When there are many seeders and many leechers, peers are able to download data from many different sources, and thus in theory downloading should be faster for everyone in the swarm. The BitTorrent filesharing scenario dictates that in order for a file to be available for others to share there must always be at least one seeder in the swarm. Often, when a lone seeder disconnects before a leecher has downloaded the entire file, the entire torrent will eventually become 'stuck', with the leechers ultimately arriving at a point where they each possess the exact same percentage of the entire file—with none having a complete copy. This is a common cause of frustration among many BitTorrent users, especially on publicly accessible trackers, and can only be resolved if someone with the entire file rejoins the torrent. The absence or presence of seeders is one of the major distinguishing factors between public and privately accessible indexes and trackers. I'll expand more on the differences between these two later but for now note that private sites tend to have an over-abundance of seeders while public sites tend to have more leechers both. As a result, content on private sites tends to be more diverse, since there are more seeders, while on public sites, only currently popular content is likely to have many seeders since less popular content will lose seeders faster.

CONCLUSION

What we can already begin to discern, even in this brief technical and historical introduction to the BitTorrent protocol, is, I think, a complex tapestry of commercial interests, entrepreneurialism, and the necessity of a fairly advanced technological knowledge and vocabulary. Additionally, BitTorrent filesharing is marked by egalitarian software distribution, a technical paradigm that privileges sharing and reciprocity, and the beginnings of a widely decentralised culture for utilising technology to gain greater access to cultural production. Each of these elements is paralleled in the conflicts and contradictions that emerge in filesharing culture more generally, and I will engage with these throughout the rest of this thesis. However, far from being a case of technological determinism, BitTorrent does not model the culture in its image, though the capacities inherent in its design certainly bid new ways of thinking and practising the distribution of cultural production. The protocol itself carries with it something of the culture out of which it emerged. The whole notion of a software designed explicitly to remove as

many barriers to sharing as possible reflects something of the desire that human beings have to share in the first place and our capacity to develop innovative ways to solve problems that arise when barriers to this desire present themselves. These capacities form a crucial component of the arguments I advance in chapters Six and Seven since the use of BitTorrent in a variety of different online areas suggests the autonomous creation of alternative spaces to engage in sharing and communication. And crucially, these spaces themselves are not immediately invested with a political potential, something that frustrates the efforts of those parties who wish to see piracy eradicated *and* those who wish to see piracy become part of an organised political movement to 'free culture' from the grips of capital.

Indeed, Cohen's own comments on his role in creating the protocol speak less to an explicitly political programme than they do to an approach to solving a problem typical of computer and software engineers: 'People expect me to be some kind of copyright crusader or something, and I'm not. I'm a technologist. I build technology and I've been sucked into this crap, which on some level I don't really care about all that much'.²⁶ Cohen, by his own admission, is much more interested in solving the dilemma of rapid sharing of content through digital networks than he is with the political ramifications or what this might mean for debates about intellectual property and the democratisation of information access. At the same time though, he does appear to see his attempts at problem solving in somewhat ethical terms describing the process of sharing via BitTorrent as 'a virtuous cycle' and even raised early funds for his work through selling T-shirts emblazoned with the well-known proverb, an appropriation of Luke 6:38: 'Give and Ye Shall Receive'.²⁷

This chapter has introduced the BitTorrent filesharing protocol in the hopes of preparing the reader somewhat with technologies that underpin much of the activity that I will discuss throughout the rest of the thesis. The brief historical sketch given noted that by its creator BitTorrent was seen, at base, as the solution to a problem. However, as the usage of BitTorrent has grown, an entire technical and cultural apparatus has come to rely upon the protocol's unique and innovative way for sharing large amounts of data. It is to the cultural elements that I now turn. First, to publicly accessible BitTorrent websites in Chapter Three and then to private or 'members-only' BitTorrent sites in chapters Four and Five.

²⁶ Matt Hartley, 'BitTorrent Turns Ten'.

²⁷ Clive Thompson, 'The BitTorrent Effect', *Wired*, 2005
<<http://www.wired.com/wired/archive/13.01/bittorrent.html>> [accessed 9 February 2012].

CHAPTER THREE: PUBLIC BITTORRENT SITES

INTRODUCTION

In many ways, the culture, practices, and customs that have developed around BitTorrent filesharing start with the need to filter BitTorrent content from the myriad other forms of content available online. BitTorrent sites are places that first and foremost emerge as strategies for seeking out media. But along with with this instrumental purpose, a set of social norms, techniques, and customs has emerged as the sites themselves have improved search capacities and broadened the potential for interaction between users. This chapter presents a description of the technical, social, and cultural contours of publicly accessible BitTorrent search indexes, which are the dominant means for finding BitTorrent content. Though my primary goal here is to provide the reader with a sense of how such sites factor into the larger filesharing environment, the description itself highlights particular elements of BitTorrent filesharing that speak to issues that are taken up in the latter stages of the theses.

I focus first on public BitTorrent sites primarily in their roles as filters of digital content. As search engines, these sites are crucial to opening up access to cultural production by presenting their users with convenient and efficient means for finding copyrighted digital content. However, most public sites are relatively unsophisticated in their search functions, which tend to be based on keywords and ultimately present users with sometimes bewildering lists of duplicate and often poor quality content. Thus, secondly, I take up elements of these sites in which users themselves intervene in the process of managing the content that is available. Since one of the defining features of public BitTorrent sites is a relaxed and sometimes non-existent approach to policing the site such for content, interactive areas such as comment fields have become a means for site users to self-police content. Understanding that a crucial part of what makes BitTorrent filesharing function is the collective curation of digital media through autonomous user interaction is important for seeing these sites as more than simple repositories of copyright-infringing content. They are, in many ways, experiments in the collective authoring of online environments for curating and attaining digital media. Third, as much as public BitTorrent sites can be seen as collective endeavours that have their basis in users' commonly shared abilities to share and communicate about media, public sites attempt to valorise these users in order to cover operational costs. I therefore

offer some analysis of how public sites are funded as a means to demonstrate that as much as these sites reject the logic of intellectual property by facilitating copyright infringement, they also reinscribe a type of commodification. Audiences for private sites find their collective labours valorised as they are packaged into informational commodities that are sold to advertisers. Much like legal online media distribution, which folds users into subscription plans and advertising-supported listening, so too do public sites see audiences as a primary site for the extraction of surplus value.

SEARCHING

‘Search is the beginning and the end of the internet’, wrote Cory Doctorow as he stressed the importance of a ‘participatory solution’ to the problem of finding information on the World Wide Web.¹ So too is search crucially important to the world of BitTorrent filesharing. In fact, I suggest that the *raison d’être* of the sites studied throughout this thesis is their attempts to provide efficient means for searching the web for content that is shared using the BitTorrent protocol. If users cannot accurately find the material they seek, then the whole BitTorrent peer-to-peer enterprise effectively fails. In fact, in many ways a ‘BitTorrent site’ is nothing more than a means for efficiently filtering out everything on the Internet that is *not* BitTorrent content and presenting users with what remains in a searchable manner. Both the public and the private sites considered throughout this thesis are at base different and at times contradictory ways for grappling with the problem of indexing, sorting, and making accessible digitised cultural production through BitTorrent. However, in contrast to Google’s dominance over World Wide Web search and the problems that inhere in this near monopoly, there is a healthy variety of ways for users to seek BitTorrent content.² In fact, Google is itself but one of the many ways that users can find content: by simply appending the term ‘torrent’ any Google search will yield thousands of results for BitTorrent media content and direct users to many of the sites discussed below.³

There are two types of publicly accessible sites where users can find links to ‘torrent’ files. There are torrent search indexes, which may or may not have an associated tracker, such as *The Pirate Bay*, and there are meta-search indexes, such as *KickassTorrents*, which are sites that ‘crawl’ the World Wide Web for torrent search

¹ Cory Doctorow, ‘Search Is Too Important to Leave to One Company—Even Google’, *The Guardian*, 2 June 2009, sec. Technology, <<http://www.guardian.co.uk/technology/2009/jun/01/search-public-google-privacy-rights>> [accessed 13 February 2012].

² Siva Vaidhyanathan, *The Googlization of Everything (And Why We Should Worry)* (University of California Press, 2011).

indexes and from these present lists of results that direct users to the index sites themselves.⁴ A torrent search index generally hosts its own database of user-uploaded torrent files while a meta-search index obtains information from these search indexes and presents a list of sites where a desired torrent may be found. Torrent search indexes do not host any media content, they host only the torrent file (the meta data that points a user to a tracker and provides information about the media content); meta search indexes host neither the torrent file nor media content. The distinction is relatively unimportant in practice because, from the user's perspective, the process of searching for torrents is not significantly different from one type of site to the other. The only real experiential difference between the two is that a search index presents users with a list of search results that link to a torrent page where they can download the requested torrent file while a meta search index presents users with a list of search index sites that one must visit in order to access the torrent page and download the torrent file. In practice, this amounts to one or two extra mouse clicks.

The distinction does have some importance, however, when meta searches are located functionally within the wider 'torrentsphere'. First, by redirecting users to a variety of different search indexes, meta search sites further widen the potential reach of any single torrent file. Second, they broaden filesharers' awareness of the various indexes and public trackers themselves. For example, *Torrentz*, one of the more popular meta search indexes, boasted at the time of writing to index over 12 million 'active torrents' (meaning torrents that are currently seeded), 59 million 'pages' (discrete pages for each torrent file), and 33 distinct torrent search index domains.⁵ So, a search at *Torrentz* may yield a results page that points the user to any number of different search indexes, some more popular than others. Moreover, on a technical level, meta search sites also index the various trackers that a single torrent is being shared on. Since a torrent can be shared on multiple trackers at the same time, and also published on

³ *Google* has recently capitulated to media industry demands that it censor searches for copyright infringing material. The company has removed the term 'torrent' and other terms related to media piracy from its 'instant search', a feature that automatically completes search queries with commonly searched for terms. For example, until late 2010 users who typed the name of a musical artist or film title would often find that one of the suggested searches generated by *Google* would include the name of that artist appended with the term 'torrent'. Now, this is not the case. However, links to torrent search indexes will still appear in the list of search results. For more explanation see Mark Brown, 'Google Caught in Subtle Censorship of Piracy Search Terms', *Wired UK*, 27 January 2011, <<<http://www.wired.co.uk/news/archive/2011-01/27/google-soft-censorship>> [accessed 13 February 2012].

⁴ 'The Pirate Bay', *The Pirate Bay* <<http://thepiratebay.se/>> [accessed 13 February 2012];

'KickassTorrents', *KickAssTorrents* <<http://kat.ph/>> [accessed 13 February 2012].

⁵ 'Torrentz', *Torrentz* <<http://torrentz.eu/>> [accessed 13 February 2012].

multiple torrent indexes, a meta search site gives users the option of adding these additional trackers to the 'pool' of trackers they connect to should they decide to download that torrent. This is a very easy process that usually involves copying selected text from a webpage and entering that text into the 'add tracker' field in the torrent client much like one would 'cut-and-paste' between word processing documents. The addition of more trackers to a torrent has the potential of widening participation in the torrent swarm itself, which increases the possibility that the files will be more readily available and thus transfer speeds will be more efficient. Finally, meta search sites, as with search indexes, are largely supported by advertising, and thus a meta search site will also drive traffic to an additional layer of advertisers that are featured on any of the search indexes that are linked to. I'll take up advertising on torrent sites in some detail in Chapter Six. For my purposes here, however, search indexes and meta search engines will be considered as more or less synonymous and addressed collectively as 'public torrent sites' since for users the distinction is largely meaningless. When necessary, I will make a distinction between the two.

Publicly accessible torrent sites offer a variety of ways for users to search for BitTorrent content. Though the technical specifications of each site varies, most employ a combination of proprietary and free/open source software for managing databases, search 'front ends', and servers. These are often the very same combinations of proprietary and free/open source software configurations used by many mainstream web 2.0 sites. On their home pages most public sites feature some variation on lists of recent uploads in a variety of categories. A typical scenario would see the home page organised into lists of the ten most recently uploaded movie, television, music, and software torrents. Another variation may see these lists organised by most popular torrents over a recent time period. Notable exceptions to the inclusion of lists on the homepage are *Torrentz* and *The Pirate Bay*, each of which models its homepage on Google's more minimalist approach: they include only a site banner, search field, and some minimal site navigation.

Search technology on public sites is rather unsophisticated, especially when compared with Google's complex page-rank algorithm, which tracks site popularity through a granular analysis of the links between webpages that are then ranked

according to a proprietary algorithm.⁶ Searches on public sites are much more basic. They are keyword-based and usually reference only the titles of the various torrent files that are stored in a site's database. If the key terms do not appear in the title of the file, then no search results will be returned. Occasionally, the search algorithm will search all of the text associated with a torrent file, including any comments or additional information. Usually, the result of such an expansive search algorithm are presented in a disorganised and somewhat bewildering list of results. Most torrent sites, following the lead of Suprnova (without the 'e'), which one of the first highly popular BitTorrent search sites, offer the option of refining search results through subcategories for audio, video, software, and so on.⁷ Users are further able to sort search results according to a variety of parameters. These might include an alphabetical list by title, by date uploaded, or, perhaps most useful for BitTorrent sharing, by the total number of times the torrent file has been downloaded or by the total number of currently active seeders or leechers.

The latter three parameters—downloads, seeders, leechers—are particularly useful for finding desirable content. This is because one cannot simply rely on the search function alone as a means of verifying a torrent's authenticity. The total number of downloads of a particular torrent file indicate to a user that the file is popular. The popularity of the file means that the media content itself is unlikely to be corrupted by viruses or undesirable audio or visual artefacts left over from a poor digital transfer (such as 'pops' or 'scratches' in an audio file, or 'pixelisation' or out of sync audio in a video file). Thus, users will have been less likely continually download files that bear these traces, which would result in its lower popularity. Most importantly perhaps is that the number of downloads indicates to a user that the media shared is as advertised. Such an indicator of authenticity is crucial in filesharing because, since the earliest days of *Napster*, a major source of frustration for filesharers has been determining in advance of a download whether or not the content of a media file is actually what the filename says it is. Such ambiguity in the relationship between the name given to a media file and its content has also been an irritant to anti-piracy authorities. This is because there is no

⁶ See Lawrence Page and others, 'The PageRank Citation Ranking: Bringing Order to the Web' (Technical Report Stanford InfoLab, 1999), <<http://ilpubs.stanford.edu:8090/422/>> [accessed 13 February 2012] and Sergey Brin and Lawrence Page, 'The Anatomy of a Large-Scale Hypertextual Search Engine', *Computer Networks and ISDN Systems* 30 (1998): 107-117.

⁷ Suprnova was one of the first BitTorrent search indexes to gain widespread popularity. After two years, it was shut down after the servers were seized by Slovenian police in 2004. See Ernesto, 'Suprnova.org: Two Years Since the Shutdown | TorrentFreak', *TorrentFreak*, 2006. <https://torrentfreak.com/suprnovaorg-two-years-since-the-shutdown/>.

intrinsic link between the name of a media file (or any file for that matter) and its content. In fact, early attempts by peer-to-peer applications to prevent the distribution of copyrighted content, done so largely at the behest of the content industries, were largely based around filtering filenames. Users of such services very quickly learned that simply renaming a file was enough to defeat any filtering parameters.⁸ Indeed, such experiments in circumvention yielded some creative ways for both defeating the filters while still maintaining some reference to the contents of the media file. So, a text-based filter scanning for filenames containing the term 'Metallica' could easily be circumvented by renaming an mp3 file to include instead the term 'M3tallica'; if the filtering software was adjusted to detect popular transliterations, then users would re-adapt with others that could not be detected. By extension, there is also no intrinsic link between the name of a torrent file, the media about which it contains information, and the media file itself. Put simply, one could create a torrent with information about a given media file, name the media file with any name one likes, give the torrent file a random string of alphanumeric characters—a wrong name even—and upload this to a torrent index. However, this is rarely done in practice since searches on torrent sites require that the torrent files have a name that is easily searchable and indicates what content is being shared. Knowing the number of seeders and leechers involved in a torrent swarm thus helps users to determine the torrent file's authenticity: the more seeders and leechers that appear in a torrent swarm, the more likely the file is as advertised, lacks viruses, digital artefacts, and so forth.

The number of seeders and leechers has additional importance. Since the BitTorrent protocol functions by breaking files up into chunks to be shared amongst seeders and leechers—with leechers able to download from both seeders and fellow leechers—the more there are of each at any given time in the torrent swarm, the faster the file transfer will be. It is somewhat of a truism about Internet communications that speed is a major factor both in terms of network efficiencies and in terms of Internet users' increasing expectations about how quickly they can acquire content. Indeed, most Internet-related marketing, from hardware to home Internet subscriptions, emphasises speed as the major selling point of a given service (more than they do issues like reliability, transparency of operation, customisability, or privacy). Efficiency and speed

⁸ See Jim Hu, 'Napster Looks for Better Filters', *CNET News*, 20 April 2001, <http://news.cnet.com/Napster-looks-for-better-filters/2100-1023_3-256208.html> [accessed 13 February 2012] and Michael Singer, 'Another Nail In Napster's Coffin?', *Internet News*, 6 March 2001, <<http://www.internetnews.com/business/article.php/706581/Another+Nail+In+Napsters+Coffin.htm>> [accessed 13 February 2012].

were also built-in values in BitTorrent's design, and are high on the list for most filesharers. Comments like 'ohhh, c'mon don't have me stuck at 98% PLZ SEED!', are not uncommon on public sites.⁹ The issue of speed and how to obtain more of it from torrent swarms or torrent software is also a favourite topic on innumerable discussion forums, whether they are media-oriented or not. For example, this plea for help is typical:

It started downloading really fucking slow. As before I was downloading at like 200 + kb\s. Right now I'm downloading at like 5 - 20 kb\s. [...] This happens to me with EVERY torrent, As soon as I get over 85 % + In the download, It starts to slow the fuck down. Anyone have any tips on speeding up my download without having to redownload it with another program?¹⁰

Generally, BitTorrent users demonstrate that they are more than willing to share advice for configuring torrent clients and network connections. For example, a commenter in a discussion on *AfterDawn*, a popular online technology news site, offered the following technical assistance to a user who was having trouble attaining fast speeds with his/her BitTorrent client and home networking connection:

i have bellsouth dsl with westell modem too. this is what i did to configure my modem:

1. open a internet explorer browser and type 'launchmodem' (without the quotes) on the address bar.
2. on the window that appears click on 'Expert Mode'. Click on 'yes, enter expert mode' when the warning comes up.
3. Click on the 'Configure' tab, then click on 'NAT'.
4. Ok, now look to ur right, where it says Service Name, click on the arrow and scroll down to where it says *My New Service, click on that, and then on Edit (u might have to scroll to the right to see the Edit button). NOTE: If u dont see *My New Service when u scroll down, do this: Click on the 'Define Custom Service' button (it's on the same page).

⁹ 'Extras-Series (Seasons) 1 & 2 Complete', *The Pirate Bay*, <[https://thepiratebay.se/torrent/4331266/Extras-Series_\(Seasons\)_1___2_Complete](https://thepiratebay.se/torrent/4331266/Extras-Series_(Seasons)_1___2_Complete)> [accessed 13 February 2012]. In fact, a Google search for the exact phrases 'torrent stuck' yields over a 63,000 results; 'torrent not seeding' over 11,000 results; and 'slow torrent' over 100,000 results. Obviously variants on these phrases would yield even more total results.

¹⁰ 'Slow Ass Fucking Torrent Speed Downloads?', *MoparScape*, 11 July 2009, <<http://www.moparscape.org/smf/index.php?topic=381077.msg2863820>> [accessed 13 February 2012].

On the window that comes up make sure 'Port Forwarding Ranges of Ports' is checked and click 'next'. Continue with step 6.

5. a new window will pop up, click on Add.

6. Here u will set the port range. Set the Global Port Range from 6881 to 6883. Leave the Base Host Port as is, and make sure the Protocol is set to TCP (Bittorrent doesn't use UDP Protocol). Click Next

7. Now you have to enable it. scroll down to the service u created and click on it, then click on the 'Enable' button.

And thats [sic] it you're done, the light should turn Green and after a lit while u should get significantly faster downloads then before. If the light doens't [sic] turn Green restart Bit tornado, or whatever you're using, and wait at least 5 mins, the light should turn Green then.¹¹

Such assistance is typical of the generosity expressed by filesharers in many online forums. It is also typical of the autodidactic nature of BitTorrent filesharing; filesharing is a major topic of discussion, and in fact much of the information about best practices is the product of a global, ever-expanding collective online discussion. I take up the role important role of knowledge and learning further in Chapter Four, where I show how important such knowledge is to gaining access to highly desirable private BitTorrent sites. The sharing of knowledges among filesharers also suggest a practice that has much of its basis in common capacities to communicate and share information. Indeed, one of the crucial interventions that piracy makes in the distribution of cultural production is in its potential to enhance and expand such commons-based activity. The common and the political potential of piracy will be taken up in greater detail in Chapter Six.

For a user of a public site the most effective way of determining the quality of media file and whether or not they can obtain the file quickly is by determining the total number of seeders and several leechers associated with a torrent and the number of times that the torrent has already been downloaded. However, there is one important caveat to this strategy. Given the above description of the importance of knowing the number of seeders and leechers, in which many seeders is usually a positive indicator of a torrent's quality and potential speed, one would be forgiven for thinking that a torrent with thousands of seeds, and only a few peers would likely be an ideal torrent to

¹¹ 'How Do u Make BitTorrent Download Faster? i Have Been Searching the Answer for Days', *Afterdawn*, 12 June 2004, <http://forums.afterdawn.com/thread_view.cfm/89259> [accessed 13 February 2012].

download. This is because such a torrent, by virtue of the many seeds, could be assumed to be of high quality since so many have already downloaded it. However, such a torrent is usually anything but; among experienced BitTorrent filesharers it is common knowledge that a torrent like this is a fake torrent and possibly even one that has been 'planted' by an anti-piracy group. The reasons for this are outlined below.

Because public torrent sites are accessible to anyone, there are no special rules or regulations to follow regarding types of content, quality, and certainly no requirement that users continue seeding torrents after they have downloaded a file. Such rules are characteristic of private sites, which I address in chapters Four and Five. Mostly, users of public sites will find a torrent file, join the swarm for as long as it takes to download the media content, and then cease their involvement in the swarm. In the BitTorrent world such behaviour is known as the 'hit and run'. There are a variety of reasons that a user may choose only to download content and not to seed. These reasons include: the cost of bandwidth (expressed in the Internet subscription price, which in some areas is graduated according to how much bandwidth a user might need for their Internet use); slow uploading speeds (such that a user may see their continued participation as irrelevant to the swarm's efficiency); and fear that making a torrent file available exposes one to legal troubles.¹² Additionally, a user may not seed content because their BitTorrent client and/or home network, either by choice or because the user does not know to configure them, are not configured to allow uploading to other peers. Whatever individual users' reasons or technical issues, it is almost uniformly the case that because of the 'easy-in, easy-out' nature of public torrent sites there are always fewer seeders than leechers at any one time.

For these reasons, a torrent with thousands of seeders would be very unusual—even more so if this torrent is not accompanied by a lot of comments. In such a scenario, users might find that the torrent transfer will often stall at with only a certain percentage of data downloaded by everyone in the swarm or, if the transfer does complete, the resulting media content might often be several hours of blank screen, it might instruct a user to download specific software (usually malware), or at times it may feature an anti-

¹² Uploading has often been a focus of filesharing lawsuits. The Electronic Frontier Foundation begrudgingly recommends disabling sharing features on peer-to-peer software as a strategy for minimising the possibility of being sued in a filesharing lawsuit. See 'How To Not Get Sued for File Sharing', *Electronic Frontier Foundation*, 2006 <<https://www.eff.org/wp/how-not-get-sued-file-sharing>> [accessed 25 February 2012]. See also 'Frequently Asked Questions for Subpoena Targets', *Electronic Frontier Foundation* <<https://www.eff.org/pages/frequently-asked-questions-subpoena-targets>> [accessed 25 February 2012].

piracy message.¹³ Often such fake torrents are planted on filesharing sites by an intermediary working on behalf of an industry group like the RIAA or MPAA.¹⁴ Echoing earlier strategies employed to purposefully disrupt peer-to-peer networks like Kazaa or Limewire, these groups do so in order to corrupt the network of shared files and ‘to trap people into downloading fake torrents, so they [the anti-piracy groups] can collect IP addresses, and send copyright infringement letters to ISPs’.¹⁵ Indeed, it is possible to collect IP addresses from a torrent swarm, since most clients allow users to see the peers to whom they are connected. Fairly reasonable proof of this activity came when an administrator at the recently defunct BTJunkie noted that in some identified cases of fake torrents, the IP addresses of the seeders were geographically clustered around Southern California. These addresses belonged to the anti-piracy technology firm Mediadefender.¹⁶ Such a claim is reinforced by Cuevas *et al*’s important work on determining the sources of BitTorrent material in which they found evidence that suggests that potentially 30% of content shared on BitTorrent sites is part of an anti-piracy ‘systematic poisoning attack’ on BitTorrent sites.¹⁷

Efficiently searching for and finding BitTorrent content requires a considerable amount of knowledge and experience. It is a knowledge that is developed by learning to read and interpret specific cues as to a torrent’s authenticity while also remaining aware of concerted attempts to contest the development and practice of this knowledge by industry-related anti piracy groups. BitTorrent filesharing is thus a complex phenomenon that is not as immediately open and accessible as it may seem: technical and social knowledge, in addition to an awareness of the levels of risk involved, make the phenomenon of BitTorrent media piracy much more of a learned skill than a free-

¹³ Rubén Cuevas and others, ‘Is Content Publishing in BitTorrent Altruistic or Profit-Driven?’, in *Proceedings of the 6th International Conference on Emerging Networking EXperiments and Technologies (ACM CoNEXT 2010)* (presented at the The 6th International Conference on emerging Networking EXperiments and Technologies (ACM CoNEXT 2010), Philadelphia, PA: Reza Rejaie, 2010), <<http://e-archivo.uc3m.es/handle/10016/10116>> [accessed 13 February 2012].

¹⁴ Ernesto, ‘How to Find Fake Torrents Uploaded by the MPAA and RIAA’, *TorrentFreak*, 2007, <<https://torrentfreak.com/how-to-find-fake-torrents-uploaded-by-the-mpaa-and-riaa/>> [accessed 13 February 2012]; Paul Gil, ‘How to Tell If a Movie Torrent File Is Fake’, *About.com Internet for Beginners*, January 2012, <<http://netforbeginners.about.com/od/scamsandidentitytheft/tp/how-to-spot-fake-torrents.htm>> [accessed 13 February 2012].

¹⁵ Ernesto, ‘MPAA Caught Uploading Fake Torrents’, *TorrentFreak*, 2007, <<https://torrentfreak.com/mpaa-caught-uploading-fake-torrents/>> [accessed 13 February 2012].

¹⁶ Ernesto, ‘MPAA Caught Uploading Fake Torrents’; Thomas Mennecke, ‘Interview with MediaDefender Defenders.com’, *Slyck News*, 2007 <http://www.slyck.com/story1586_Interview_with_MediaDefender_Defenderscom> [accessed 25 February 2012]; Kim Zetter, ‘Hackers Smack Anti-Piracy Firm MediaDefender Again and Again’, *Wired*, 2007 <<http://www.wired.com/politics/security/news/2007/09/mediadefender>> [accessed 25 February 2012].

¹⁷ Rubén Cuevas and others, ‘Is Content Publishing in BitTorrent Altruistic or Profit-Driven?’.

for-all theft. In addition to discussions in online forums there are other crucial ways in which aspiring BitTorrent pirates hone their skills. Perhaps the most important is the social dynamic that is a major part of both the public and private BitTorrent paradigms. This dynamic is especially important on public sites, and is largely a response to the lack of oversight and the reluctance of site operators to pro-actively police shared content for fakes or corrupted files. Policing content is often left up to the collective capacities of users themselves to indicate to one another those torrents that are desirable and those that are not. It is to this self-policing that I now turn.

SELF-POLICING AND COMMENTS

Content on public BitTorrent sites is usually not subject to any top-down scrutiny of its authenticity or quality. In fact, many public site administrators actively shy away from policing the content that is shared on their sites in an effort to maintain a ‘plausible deniability’ of any potential wrongdoings perpetrated by a site’s users, especially the sharing of copyright-infringing materials. In fact, the operators of The Pirate Bay maintained throughout the high profile trial against them that they provided nothing but a conduit for their users to share material and that they were ultimately not responsible for what was shared, nor were they responsible to police that content.¹⁸ Public BitTorrent sites are unlike private sites with respect to oversight and regulations. In chapters Four and Five, I describe how private sites publish strict sets of rules and regulations governing the type of content allowed on the site, its quality, and its authenticity. In contrast, public sites are places in which the users themselves are left to determine such things. Without such oversight, comments areas are one of the primary means for users to get information about a torrent they wish to download. Comments are usually part of the ‘torrent page’, which is the page a user sees after clicking on a search result. It is a page dedicated to a specific torrent and will contain information such as track lists, personnel information, plot summaries, biographical information, and so forth. All of this information is supplied initially by the user who uploaded the torrent, and can sometimes be edited and expanded upon by users who visit the torrent page.

Because of their widespread accessibility, public torrent sites often contain a

¹⁸ Early in the trial the owners of The Pirate Bay posted this on their website: ‘no copyrighted and or illegal materials are stored by us [...] [i]t is therefore not possible to hold the people behind The Pirate Bay responsible for the material that is being spread using the tracker’. Quoted in David Kravets, ‘Landmark Pirate Bay Trial Begins Monday’, *Wired*, 2009
<http://www.wired.com/threatlevel/2009/02/pirate/> [accessed 25 February 2012].

great deal of duplicate content, especially of currently popular mainstream media or media that has lasting popularity. Comments sections provide a useful means for users to sort through the variety of duplicate content. Much like contemporary mainstream popular radio, in which ‘old’ and ‘new’ popular musics are often seamlessly combined with no apparent regard for their decade of origin or demographic appeal, it is not uncommon to see multiple versions of the latest top-40 hits alongside multiple versions of, say, albums by ABBA or the Beatles—all with plenty of peers.¹⁹ The preference for users voluntarily policing content, through comments fields for example, combined with the minimal oversight from site operators is what makes it possible to have, for example, eleven search results on *Torrentz* for the keywords ‘Britney Spears discography’, or forty-two results on *The Pirate Bay* for the keywords ‘Radiohead In Rainbows’. Each result may be of varying technical quality while others may be exact duplicates; still others could be different file formats (i.e. FLAC, MP3, etc.).²⁰ The prevalence of duplicate content on public sites is because there is little incentive for users to actually flag duplicate content nor is there any incentive or desire on the part of administrators to delete such content. Instead, the social system of commenting appears to reach a certain equilibrium on its own. The reason I highlight duplication of content is to stress the importance of efficiency in torrent swarms: two discreet torrent swarms in which the exact same content is shared is considerably more inefficient than one big swarm. All of those trackers associated with one torrent could ideally have been added to another, creating a much more efficient transfer speed. Furthermore, though duplicate content indicates a certain democratisation of media access—anyone can upload and share anything—it also makes the user experience more bewildering since questions are bound to arise about which one among the many they ought to download. In this case, the importance of user contributions and interactivity in the form of comments is crucial. Also, streamlining the search process by prohibiting duplicate content is one of the major strengths of the private sites I address in Chapter Five.

In many cases public site users can rate a torrent’s quality and authenticity by clicking a ‘thumbs up’- or ‘thumbs down’-style button on the torrent page page. In some

¹⁹ In fact, years in advance of the overblown first digital release of the Beatles catalogue through iTunes in 2010 The Beatles’ music had been shared widely on P2P networks. They are still the most shared artist on many private sites. See ‘Beatles Albums Offered on iTunes’. ‘Beatles Albums Offered on iTunes’, *BBC News*, 16 November, 2010, sec. Technology, <<http://www.bbc.co.uk/news/technology-11763650>> [accessed 13 February 2012].

²⁰ FLAC is a ‘lossless’ compressed audio format in which no fidelity is lost in the digital transfer. MP3s are ‘lossy’ compressed audio files that do suffer degradation when they are created. More detail on file formats is found in Chapter Four which takes up gaining membership to private BitTorrent sites.

cases this activity results in the site operators removing or authenticating certain content, while in other cases the number of positive and negative ‘votes’ given to a torrent is made available to help users to determine the quality of the torrent. Generally though there is very little top-down assessment of the content that is actually shared on public sites. There are no rules that govern the technical quality of material (like the ‘bitrate’ of mp3 files or the screen resolution of video), though mechanisms do exist for users to report ‘fakes’—or files that are not as advertised. In the case of reported torrents, files might be deleted from the database by the site administrators, but this is about as far as most top-down oversight reaches. Thus, comments fields on torrent pages are invaluable for assessing torrents. In fact *KickassTorrents* specifically requests that users ‘please, leave only comments related to torrent quality and status’ and to refrain from socialising in the comments sections of torrent pages. Comments fields may include warnings to other users about bad torrents or, conversely, encouragement to download a torrent because of its superior quality. The most common comment is ‘thank you; (and if there are many, this itself is a reasonable indicator that the torrent is ‘good’). Emphatic thanks such as ‘[a]most 400kb/s! I am downloading this for my brother and his friend and I’m glad it is fast. Thanks FXG!’ which expressed in the comments section for one of the many versions of the film *The Dark Knight* shared on *The Pirate Bay* is typical of these sorts of comments.²¹

Other users will use the comments area as a means for indicating to others the technical *and* aesthetic quality of the media content itself. For example, on the same *The Dark Knight* torrent page, one downloader offered this assessment:

Really nice torrent
 A/V - 10/10
 Subs - 10/10
 Movie - 10/10
 Really thanx a lot uploader.²²

This commenter is letting other potential downloaders know that, in his/her estimation,

²¹ ‘The Dark Knight[2008]DvDrip[Eng]-FXG’, *The Pirate Bay*, <[https://thepiratebay.se/torrent/4506091/The_Dark_Knight\[2008\]DvDrip\[Eng\]D-FXG](https://thepiratebay.se/torrent/4506091/The_Dark_Knight[2008]DvDrip[Eng]D-FXG)> [accessed 13 February 2012]. FXG is the name of the ‘scene group’ that initially released the torrent. Scene groups are those small filesharing collectives that often have first access to music and movies through associations with studios, mastering companies, etc. It is very common for movie releases on BitTorrent sites to be accompanied by information about the group, in the form of their name included in the torrent filename, but also in ‘.info’ files contained within the torrent content itself. For more on this phenomenon see Cuevas and others.

²² ‘The Dark Knight[2008]DvDrip[Eng]-FXG’.

the audio and video quality (A/V), accuracy of the subtitles file (Subs), and the quality of the movie itself as a piece of entertaining and worthy cinema (Movie) are each rated 10 on a scale of 10. High praise indeed! Often, regardless of the technical qualities of the torrent, users will offer their aesthetic opinions, as did another commenter, who clearly did not like *The Dark Knight*: ‘the movie is a complete shit. nothing less than a wastage of time’.²³ Many times commenters take the opportunity to notify the original uploader and other potential downloaders of any technical problems with the media content. Commenting on another version of *The Dark Knight*, one commenter exclaimed ‘Whoa, whoa, whoa..! Why the fuck is the aspect ratio so inconsistent? From 16:9 to 2.85:1, back and forth, back and forth. What’s the deal????’, which indicated to others that there may have been a problem with the actual transfer of the original DVD video to the compressed MP4 video that was shared.²⁴

User comments are at best only partially useful in determining the quality of media content. There are several reasons why this is the case. First, one can never be entirely sure that negative comments as to the technical quality of a download are not just a product of a particular user’s computer configuration. This uncertainty means that comments that a particular media file is corrupted may actually originate from a user who is experiencing corruption because they do not have the proper viewing or listening software installed on his/her home computer. It may also be the case that the software or computer has been poorly configured—it might lack proper audio or video ‘codecs’ or the various audio and video settings in their operating system are not configured to view certain files. Second, positive and negative assessments of the speed of transfer are just as often dependent on a user’s home network connection and how the home network itself is configured. An inexperienced torrent downloader may interpret slow speeds as the fault of the torrent swarm when in actuality they may be the result of a slow home internet connection, a poorly configured modem or router, badly configured software settings, and so on. Terms such as ‘slow’ and ‘fast’ are also subjective, and thus an inexperienced torrent downloader may also not be able to appreciate what speeds can be expected from their home networking connection. Third, there is no way of accurately determining whether a commenter is being truthful. As with other forms of online communication, ‘trolls’, or users who post provocative comments for no other

²³ Ibid.

²⁴ ‘The Dark Knight 2008 480p BRRip X264 AAC-GokU61[HDSScene-Release]’, *The Pirate Bay*, <[https://thepiratebay.se/torrent/6139039/The_Dark_Knight_2008_480p_BRRip_x264_AAC-GokU61\[HDSScene-Release\]](https://thepiratebay.se/torrent/6139039/The_Dark_Knight_2008_480p_BRRip_x264_AAC-GokU61[HDSScene-Release])> [accessed 13 February 2012].

reason than to garner attention or reaction, abound on public torrent sites—another potentially toxic aspect of public sites' openness. In each of these cases, torrent downloaders are required to develop a certain aptitude for assessing comments, for weighing qualitative elements of comments against quantitative elements: Are there a lot of negative comments? When compared to other comments, do these particular comments seem anomalous? In the examples given above, there were conflicting comments: some questioned the cinematic worth while others were enthusiastic about *The Dark Knight*; some expressed delight at high speeds at the same time as others complained that the download was slow; and while some questioned the quality of the digital transfer, others gave high praise. Such is the complicated and often contradictory nature of assessing torrents on public sites.

The only way one can learn to negotiate this complicated social and technical terrain is through experience and experimentation. This means that seasoned users have invested a tremendous amount of time growing their own knowledge as they come to understand terminology and etiquette, develop methods for assessing torrent authenticity, quality, and other attributes, and hone efficient search habits. As mentioned above, there is an abundance of instructional material on the World Wide Web that novice torrent users can avail themselves of, and this information is freely accessible. Such information is largely the product of torrent users commenting on torrents, solving problems on discussion forums, and posting articles on blogs and various other 'how to' sites.²⁵ Such activity can be seen as a form of labour in which public torrent site users willing to engage so that they can best satisfy the end goal of procuring media content. In a way, these users are valorising this labour in a collaborative process that generates a set of normalised practices for sharing media content among themselves. Crucially though, there is another side to this valorisation, one that sees the site operators themselves co-opt the collaborative power of their user bases in order to cover operating costs and potentially to generate profit through the use of advertising. I will take up such

²⁵ Paul Gil, 'Top 35 Torrent Download Sites: a Visual Guide to the Best Torrent Sites of 2012', *About.com Internet for Beginners*, February 2012, <<http://netforbeginners.about.com/od/peersharing/tp/The-Top-35-Torrent-Sites-2011.htm>> [accessed 13 February 2012]; Paul Gil, 'How to Tell If a Movie Torrent File Is Fake'; Paul Gil, 'Torrents 101: How Torrent Downloading Works', *About.com Internet for Beginners*, February 2012, <<http://netforbeginners.about.com/od/peersharing/a/torrenthandbook.htm>> [accessed 13 February 2012]; Paul Gil, 'Torrent Download Guide 2012: a Beginner's Introduction to Torrent Downloading', *About.com Internet for Beginners*, February 2012, <<http://netforbeginners.about.com/od/peersharing/tp/Torrent-Download-Guide.htm>> [accessed 13 February 2012]; Paul Gil, 'Top 35 Torrent Download Sites: a Visual Guide to the Best Torrent Sites of 2012'.

labour in Chapter Six, where I theorise these activities through the lens of audience commodification, audience labour, and the refusal of work. For now, I will detail the ways in which public torrent sites generate revenue.

FUNDING/ADVERTISING

Though piracy itself is not often cast as a commercial enterprise, especially by its most fervent supporters, public BitTorrent trackers are in fact almost always somewhat commercial entities. The flow of money and the points of potential profit within the ‘BitTorrent Ecosystem’ is a complex of relations between advertising agencies, BitTorrent indexes, website hosting providers, and user donations and subscriptions.²⁶ Like many strategies for monetising online spaces, advertising is the primary generator of revenue. Memberships, paid subscription services, and user donations all have their place, as they do in other online enterprises, but advertising is still the predominant means for generating revenue online. An entire network of third-party companies exist to coordinate and serve advertising content to torrent sites. Some of the more commonly-used companies include Adperium, ad4game, and Quantcast.²⁷ Other forms of advertising include links to paid direct download sites, which often take the form of an obvious ‘download’ button that tricks the user into thinking that this is the button to press to download the torrent. It is not. Instead it links to a site like Newzbin or Binverse, which are commercial services that offer paid access to various Usenet servers, which are themselves yet another way in which users can download media content.²⁸ In other cases, the torrent file itself might contain a small text file with information about the group or individual who initially uploaded the torrent. This file may also include a link to yet another advertising-driven website or paid subscription

²⁶ Rubén Cuevas and others, ‘Is Content Publishing in BitTorrent Altruistic or Profit-Driven?’.

²⁷ ‘Home | Quantcast’, *Quantcast* <<http://www.quantcast.com/>> [accessed 25 February 2012]; ‘Ad4Game: The Internet’s Game Ad Network’, *Ad4game* <<http://ad4game.com/>> [accessed 25 February 2012]; ‘Adperium Advertising Network’, *Adperium* <<http://www.adperium.com/>> [accessed 25 February 2012].

²⁸ ‘Newzbin - Browse Category: Books’, *Newzbin2* <<http://www.newzbin2.es/>> [accessed 25 February 2012]; ‘Free Usenet Trial, Free Newsgroups - Fast, Easy & Private’, *Binverse* <<http://www.binverse.com/>> [accessed 25 February 2012]. Usenet is distributed discussion system on the Internet. It began in the late 1970s. Usenet is still a popular means for filesharing since its distributed architecture makes it very difficult to police. However, recent changes in some European laws have required that Usenet providers police these discussions for infringing content, something that for many providers is economically unfeasible. See Jan Libbenga, ‘Provider: Anti-piracy Ruling Has “Killed Usenet”’, *The Register*, 30 September 2011, section Crime <http://www.theregister.co.uk/2011/09/30/provider_claims_court_verdict_marks_the_end_of_usenet/> [accessed 25 February 2012]; Michael Hauben and Ronda Hauben, *Netizens: On the History and Impact of Usenet and the Internet* (Washington, DC: IEEE Computer Society Press, 1997).

service. Advertising content varies depending on the site, but largely it comes in the form of ‘pop up’ and on-site advertisements, which are often for pornography, online gambling, free antivirus software (which is actually often malware in disguise), and sometimes ads which, when clicked, prompt the user to download an *executable programme* that could potentially infect their computer with a virus or other form of malware. Such advertising content is typical of the less-than-legitimate Internet and email spam.

Though advertising *content* is not a primary focus in this thesis, it does bear mentioning that the majority of these ads are clearly targeted toward a young male demographic, which has long been considered the most active filesharing group. Academic research bears this out, and advertising companies and public torrent sites would be not be unaware that, for example, over a decade ago the PEW Internet and American life surveys had already found that in the US young men were roughly 5-10% more likely to download music online, and that by 2005, after a brief overall drop in filesharing, that statistic was continuing to rise.²⁹ Indeed, demographic considerations are reflected in the promotional materials for the online ad agency Adperium, which serves ads to many torrent indexes and torrent-related blogs and news sites. Adperium note that its target audiences are ‘Mostly male audience (75%), age 18-34 / Tech-savvy, interested in gadgets and entertainment channels’.³⁰ Some studies have even suggested that ‘[m]ale respondents were found to generally be more certain that the act of file sharing was ethical and legal, while female respondents were more uncertain about the legality and ethics of file sharing’.³¹ This latter statistic suggests that male filesharers are much more comfortable with, though largely ignorant of, the potential risks involved with media piracy. This evidence echoes studies that strongly suggest that men are more avid record collectors, and have historically had more ready access to and been

²⁹ Amanda Lenhart, Lee Rainie, and Susannah Fox, *13 Million Americans ‘freeload’ Music on the Internet; 1 Billion Free Music Files Now Sit on Napster Users’ Computers* (Pew Research Center’s Internet and American Life Project, 8 June 2000), <<http://www.pewinternet.org/Reports/2000/13-Million-Americans-Freeload-Music-on-the-Internet.aspx>> [accessed 13 February 2012]; Lee Rainie *et al.*, *14% of Internet Users Say They No Longer Download Music Files* (Pew Research Center’s Internet and American Life Project, 25 April 2004), <<http://www.pewinternet.org/Reports/2004/14-of-Internet-users-say-they-no-longer-download-music-files.aspx>> [accessed 13 February 2012]; Deborah Fallows, *How Women and Men Use the Internet* (Pew, 28 December 2005), <<http://www.pewinternet.org/Reports/2005/How-Women-and-Men-Use-the-Internet.aspx>> [accessed 13 February 2012].

³⁰ ‘Adperium Advertising Network’.

³¹ Robert Moore, ‘Perceptions of Peer-to-Peer File Sharing Among University Students’, *Journal of Criminal Justice and Popular Culture* 11, no. 1 (2004), 1-19.

socialised with technology usage more so than women.³² Furthermore, according to some surveys done in the UK, men and women are now involved in filesharing more or less equally.³³ This development does raise interesting questions about the gender assumptions made by the companies that serve ads to torrent sites, and even more interesting questions about how individual users negotiate these ads *vis à vis* their gender identity or sexual orientation. However, the point here is not to delve deeper into the specifics of advertising demographic studies, nor to focus on issues of gender or regional differences. Rather, I wish to point out that like other Internet businesses, torrent sites employ advertising as a strategy to monetise the online activity of users, and that this advertising is not at all arbitrary.

Public site operators are presumed by some to profit from providing links to copyrighted music, video and software since the sites sell advertising space based on the site's popularity among filesharers. There is some debate, however, about whether we can view public torrent sites as attempts to monetise online music sharing or whether or not the sites are simply trying to cover sometimes considerable operational costs, depending on the size and popularity of the site. For instance, in the high profile lawsuit against *The Pirate Bay*, prosecution lawyers alleged that though the site needed under US\$1,000,000 per year to operate, revenue generated largely by advertising was estimated to be between US\$1-3,000,000.³⁴ The prosecutor further suggested that *The Pirate Bay* owners 'are totally mercenary and are driven by the desire for personal wealth'.³⁵ In response, Peter Sunde, one of the *Pirate Bay*'s founders, implicitly rejected the accusation that the owners were interested in profit, and noted that '[t]hey [the prosecution] do not want to even talk about charges so it's easier for them to just try to throw dirt at their opponents'.³⁶ Unfortunately, the contested legality of BitTorrent sites

³² On record collections see Will Straw, 'Sizing up Record Collections: Gender and Connoisseurship in Rock Music Culture', in *Sexing the Groove*, ed. by Sheila Whiteley (London: Routledge, 1997), pp. 3-16. On gender and technology generally see Teresa De Lauretis, *Technologies of Gender: Essays on Theory, Film, and Fiction* (Bloomington: Indiana University Press, 1987) and Alexa Freeman and Valle Jones, 'Creating Feminist Communications', *Quest: A Feminist Quarterly* 3 (1976), 3-10.

³³ On gender equality in filesharing see 'Digital Entertainment Trends in 2008', *NetImperative*, March 4, 2008, <<http://www.netimperative.com/news/2008/march/3/digital-entertainment-trends-in-2008>> [accessed 13 February 2012] and *2008 Digital Entertainment Survey* (Wiggin LLP, 2008), <http://marcbresseel.files.wordpress.com/2008/03/digitalentertainmentsurvey2008_summaryreport.pdf> [accessed 13 February 2012].

³⁴ Ryan Paul, 'Pirate Bay: Big Revenue Claims Fabricated by Prosecutors', *Ars Technica*, February 2008, <<http://arstechnica.com/tech-policy/news/2008/02/pirate-bay-big-revenue-claims-fabricated-by-prosecutors.ars>> [accessed 13 February 2012]; 'Försvaret: Verksamheten Är Laglig'. *Sydvenskan*, 5 March 2009, sec. Sverige. <<http://www.sydsvenskan.se/sverige/article417153/Forsvaret-verksamheten-ar-laglig.html>> [accessed 13 February 2012].

³⁵ Ryan Paul, 'Pirate Bay'.

³⁶ *Ibid.*

means that they tend to operate beyond the regulations of more legitimate business and thus the sites are not typically open about their bookkeeping. Discussions of revenue versus expenses usually end up as an owner's word against a prosecutor's (or journalist's or scholar's) speculations. This was not the case with *Mininova*, however. At one time one of the largest torrent search indexes, *Mininova* operated in the Netherlands as a legitimate Internet business and as such was required by Dutch law to submit yearly financial statements to the Dutch Chamber of Commerce; the statements would thus become a matter of public record. These statements indicated that the site earned 1,037,560 EUR in revenue during 2007, much of which came from advertising and browser toolbar licensing agreements.³⁷

I suggest that the actual amounts are actually less interesting than how public torrent sites and other advertising- and subscription-based sites, such as Megaupload or numerous other file lockers, have adopted the very same *logic* of audience commodification as have their legal counterparts, services like Spotify, Pandora, or *Rhapsody*, in order to generate revenue and, sometimes, profit. I highlight the crossover in logic because, as I theorise in Chapter Six, one of the most prominent ambivalences of media piracy is that it rejects the commodification of ideas, sounds, images by refusing to engage with intellectual property laws while at the same time many variants, including public BitTorrent sites appear to reinforce commodification in other ways. In fact, much like piracy legal online distribution too has shifted emphasis away from generating surplus value from musical or visual commodities themselves and toward the valorisation of audience's labour as they listen, share, communicate, and volunteer information about themselves to these various sites. Advertising and audience commodification thus mark a point of significant homology between purportedly sites like *The Pirate Bay* or *KickAssTorrents* and legal services such as *Spotify* or *Pandora*.

CONCLUSION

This chapter has been primarily concerned to familiarise the reader with the technical, cultural and social elements of public BitTorrent filesharing. I have described in detail the process of searching for media. Searching for media on public sites is a complicated task that involves filtering out corrupt and fake media files from those that are authentic. Some of these files are a result of lack of technical competency of those

³⁷ Nate Anderson, 'Torrent Search Engine Mininova Earning €1 Million a Year', *Ars Technica*, March 2010, <<http://arstechnica.com/tech-policy/news/2009/03/torrent-search-engine-mininova-earning-1-million-a-year.ars>> [accessed 13 February 2012].

who initially share them while others have been shown to be deliberately planted on public sites by anti-piracy groups in order to disrupt the illicit flow of copyrighted media online. Users summon a variety of aids in order to perform the task of discerning the quality and authenticity of the files they have found. One of the most crucial means for doing so is the capacity for collective and asynchronous communication with other users through the comments fields in order to validate or warn users about particular files. This is a powerful form of collective curatorship that requires the development of particular knowledges and sets of skills which suggest that users not only engage in a type of mutual pedagogy, but also perform a type of labour in their efforts to engage with and participate in the distribution and circulation of digital media. For public sites, which are among the more popular destinations for media piracy, this means that they command sizeable audiences. In order to fund their operations, public sites mimic practices found in legal online media distribution by conceiving of their users as a site for generating revenue, and at times, profit. By valorising the labours of their users in this way, public sites appear to participate in the expansion of capitalist logic into realms of life that were, to an extent, formerly sheltered from such commodification. In this way, a contradiction emerges: at the same time as public sites appear to free digital media from their commodity status by rejecting the rule of copyright, they reinforce commodification in another realm, by packaging their users as informational commodities for exchange with advertisers.

In the next two chapters, I offer a similar descriptive analysis of private BitTorrent sites. I describe the process of becoming a member at these sites, and then follow with a description of the internal operations of private sites. These chapters reveal the significant points of divergence between public and private BitTorrent filesharing. Private sites are seen to operate from a logic of enclosure, as opposed to one of access that informs public sites. They restrict access and at the same time are revealed to have apparently 'solved' the problem of corrupt and duplicate content, but only through the imposition of sometimes draconian oversight and surveillance of their members which contrasts with public sites' 'hands off' approach. Crucially, private sites reject, in the main, the commodification of their members and operate largely through donations. By closing off access and refusing to valorise their members' labours as a means to gain revenue, private sites thus emerge as 'walled gardens' of activity that on the one hand demonstrate the effectiveness of collective work in creating highly desirable spaces for sharing media while on the other seem to subvert the principles of

open access that have come to characterise public BitTorrent filesharing.

CHAPTER FOUR: PRIVATE BITTORRENT SITES, BECOMING A MEMBER

INTRODUCTION

This chapter describes the process of becoming a member at a private BitTorrent site. I focus on several sites in which administrators control access via interviews, applications, and invitations. These sites include primarily SITE D, SITE F, SITE E, SITE B, SITE H, and the now defunct SITE J and SITE G.¹ By vetting potential members in terms of their technical expertise and commitment to sharing, these sites controvert many of the principle tenets of what might be deemed a filesharing 'ideology', such as open access and the free flow of information. While these sites, like public sites, reject the logic of intellectual property, they are nonetheless highly exclusive. Members only file sharing sites are cordoned off from general access and often, in order to gain access, a great deal of labour is required by those aspiring to membership. Members must possess technical, social, and cultural knowledge about BitTorrent filesharing. Members are also required to demonstrate a commitment not just to downloading digital media, but also to uploading content. In this chapter I describe the various ways that aspiring members come to learn about private sites, how they obtain invitations to participate, what is required during application and interview processes, and the ongoing membership duties required once member access is granted. I will expand the discussion of these ongoing duties further in Chapter Five.

This chapter provides considerable detail about the membership processes of these sites because a detailed understanding of the commitment involved by members is necessary for larger discussion about the significance of private BitTorrent filesharing in relation to issues of audience commodification, the refusal of audience labour as a site of capitalist valorisation, and to issues germane to the potential for a strategy for the distribution of cultural production that has its basis in the common. I take these issues up in detail in chapters Six and Seven. Given the restricted and closely monitored access to these members-only sites there has been very little ethnographic research to date that investigates and theorises the ongoing membership and sharing practices on these sites. This chapter contributes much needed observational data to the project of developing

¹ 'SITE D.org', *SITE D* <<http://SITE D.org/>> [accessed 25 February 2012]; 'SITE F', SITE F <<https://ssl.SITE F/>> [accessed 25 February 2012]; 'SITE E', *SITE E* <<https://www.SITE E/>> [accessed 25 February 2012]; 'ST', *SITE B* <<http://www.SITE B.org/login.php>> [accessed 25 February 2012]; 'SITE H', *SITE H* <<https://SITE H.ro/login.php?returnto=%2F>> [accessed 25 February 2012].

more nuanced approaches to online media piracy that seek to understand in detail the technological and social practices and customs associated with various forms of media piracy.

Private torrent sites, which are also sometimes referred to as ‘members-only sites’, ‘invite only sites’, or ‘private trackers’, are immediately distinguishable from public sites because they require that users register with the site before they can upload *or* download torrents. Some sites are ‘semi private’ because registration is open to anyone who visits the site’s homepage, others are fully private because site administrators must first grant permission for a new user to participate. In either case, content is usually not indexable by Internet search engines. The most interesting private sites, and those which I will focus on primarily, are those that require either an invitation, application, or interview in order to access the site and its content. Such sites are interesting because while they reject the logic of intellectual property in a similar fashion as public sites do, they also function as exclusive ‘walled gardens’ that enclose access to shared cultural production as they institute new forms of hierarchy and competition with which members must engage in order to access media content. Such features are not found on public sites, and they are operative to a much lesser extent on sites that only require a user to register. Once granted access to a private site, members are expected to adhere to strict rules that govern forum etiquette, type and quality of media content shared, and, most importantly, they must adhere to the requirement that all members share a certain amount of what they download through their association with the site. Private BitTorrent sites can generally be seen as exclusive communities of filesharers who privilege quality and diversity of content and speed of transfer over egalitarian access. Private sites typically feature high quality content, and are much smaller in scope and reach than the more popular public sites. Largely for these reasons avid filesharers covet access to these sites. As with the public sites, private sites offer access to a full range of digital media: some ‘general trackers’ feature audio, video, software, and eBooks, while other sites specialise in one or the other or just a few of these. There are sites dedicated to specific artists, such as the semi-private Bruce Springsteen-focussed *Jungleland* and those that specialise in more carnal fare. Some sites are highly secretive, with homepages that betray little about the site’s intended purpose, while other sites are open about their existence with public IRC channels, Twitter and Facebook accounts that anyone can view and subscribe to.²

² ‘Jungleland’, *Jungleland* <<http://jungleland.dnsalias.com>> [accessed 11 February 2012].

The first stage in gaining membership to a private ‘invite’- or ‘members’-only torrent site is gaining the knowledge that such sites exist. This might seem an obvious point, but it is important to note that such sites are not common knowledge among all Internet users. In fact, usage of peer-to-peer technologies for media piracy has declined in recent years and much of this activity was done using clients such as Limewire or any of the Gnutella variants. Fewer use BitTorrent and thus it is most likely that even fewer know about or utilise private sites.³ However, if an intrepid files harer spends enough time pirating media through public BitTorrent sites, eventually he/she will come across some reference to one or more private sites. One of the most popular ways in which potential members learn about private sites is through the plethora of online filesharing discussion forums and peer-to-peer and piracy focussed blogs. Sites such as *BTRealm*, *Zeropaid*, *TorrentFreak*, *FILEnetworks Blog*, and *FileShareFreak* will regularly feature articles about private trackers, and often such sites will have accompanying discussion forums or comment areas in which users freely discuss their experiences with the sites, potential pitfalls, how to obtain membership, and so forth.⁴ There are also several torrent ‘invite forums’, such as *Torrent Invites V3* and *InviteShare*, where, often against private sites’ wishes, invites are traded and sometimes sold.⁵ Indeed, ‘[o]ne only has to look around the most prominent half dozen torrent invite communities. There is always someone spilling the beans on even the most supposedly low-profile of locations—often with the full knowledge of the ‘secret’ site’s staff’.⁶ The primary way to gain entry to a members-only private site is to be invited by an existing member, and thus invitations (or ‘invites’) are much sought after. Another option for membership include periodic

³ Mary Madden and Amanda Lenhart, *Sharp Decline in Music File Swappers* (Pew Research Center’s Internet and American Life Project, 4 January 2004) <<http://www.pewinternet.org/Reports/2004/Sharp-decline-in-music-file-swappers/Data-Memo.aspx>> [accessed 25 February 2012].

⁴ ‘Btrealm - BitTorrent News | Filesharing News | Tracker Invitations’, *BT Realm* <<http://btrealm.net/>> [accessed 11 February 2012]; ‘Zeropaid.com - Technology News, Software, Forums and Download Links’, *ZeroPaid* <<http://www.zeropaid.com/>> [accessed 11 February 2012]; ‘FileShareFreak | THE Source for BitTorrent & P2P Tips, Tricks and Info.’, *FileShareFreak* <<http://filesharefreak.org/>> [accessed 11 February 2012]; ‘FILEnetworks Blog’, *FILEnetworks Blog* <<http://filenetworks.blogspot.com/>> [accessed 11 February 2012]; ‘TorrentFreak | Torrent News, Torrent Sites and the Latest Scoops’, *TorrentFreak* <<https://torrentfreak.com/>> [accessed 11 February 2012].

⁵ ‘Torrentinvites.org - Your #1 Source for Torrent Invites!’, *TorrentInvites.org* <<http://torrentinvites.org/forum.php>> [accessed 11 February 2012]; ‘Torrent Invites - Get Your Free Bittorrent Tracker Invitations!’, *Torrent Invites V3* <<http://www.torrent-invites.com/>> [accessed 11 February 2012]; ‘Invite Share - Everyone Is Invited!’, *InviteShare* <<http://www.inviteshare.com/index.php>> [accessed 11 February 2012]; ‘Free Invites - Never Pay for an Invite’, *Free Invites* <<http://www.free-invites.com/>> [accessed 11 February 2012].

⁶ enigmax, ‘Which Torrent Sites Get Releases The Fastest (and Why It’s Not a Secret)’, *TorrentFreak*, 2010 <<https://torrentfreak.com/which-torrent-sites-get-releases-the-fastest-and-why-its-not-a-secret-101106/>> [accessed 11 February 2012].

‘open signups’, or periods of time when many private sites open their registration to anyone who comes across the site. Depending on the site, these appear throughout the year at different times; somewhat appropriately though, the egalitarian generosity of open signups appear to cluster around Christmas. Sometimes, in lieu of truly open signups a private site will accept applications for membership from anyone who visits the application link. In these cases, aspiring members must speak to their reasons for wanting to join the site, and often provide details about their participation in other private sites. Finally, the rarest way one can gain access is by participating in an IRC interview where one must answer a variety of personal, technical, and even ethical questions. The responses are then evaluated by private site administrators and staff members in order to determine an interviewees suitability.

INVITATIONS

The various invite paradigms perform several positive functions for private sites. First, they instil a certain amount of competition among the members. Higher user statuses are tied directly to sharing habits and thus if a member wants to invite a friend or colleague to the site, they must actively contribute by uploading content to the site either by leaving torrents seeding, which ensures a reasonable level of consistency in the site’s catalogue, or by uploading new content to the site. Second, such users are presumed to be ‘good’ members because of these sharing habits, and thus there is an expectation that they might also invite other desirable people to the site. In fact, in some cases, members will be punished through demotion or even banning should their invitees break rules. Third, in cases where invites are allotted based on donations, it is a way for sites to obtain much needed real world currency (ostensibly used for covering operational costs). Fourth, invites help the site control the flow of new members, which can help with keeping membership levels reasonably consistent. Given the inevitability that certain members will become inactive or be banned from participation for breaking site rules, the invite systems are a form of publicity, and ‘a large proportion of the more visible private sites [...] could not survive without a level of publicity since members are kicked out all the time’.⁷ Keeping a predictable level of membership, or even a reasonably predictable growth in the membership will help a site predict technology and bandwidth costs, such as the need for new and more capable servers. This predictability also ensures that the sites do not become too popular and well known lest they suffer the

⁷ Ibid.

fate of public sites, where shared content has a greater likelihood of corruption and unwanted attention may lead to security and legal problems for the site. Lastly, the selective process of allotting invitations ensures that the sites maintain their mystique and desirability in the torrent world, which, in line with the importance of reputation in media piracy and hacking circles, is a cultural peculiarity of underground network operations. As *TorrentFreak*'s enigmax reminds us: 'these sites, one way or another, nurture their image and desirability using things such as the apparent exclusivity of their community, the size and quality of their swarms (which by necessity require a decent number of contributors) and their efficiency at getting the best material first'.⁸

Most private sites utilise some sort of invitation paradigm. Existing members usually earn invitations by virtue of their 'user class' or 'status'. These hierarchies usually correspond with positive sharing habits: the higher a members status, the more likely it is that users will receive invites that they can distribute to potential members. User classes will be discussed in more detail in Chapter Five. At SITE D, for example, VIP users are the only members who are eligible to receive invites. VIP status at SITE D is '[a]ssigned by Administrators at their discretion to users they feel contribute something special to the site' though '[d]onating 25 euros or more gets you VIP status for 3 months'.⁹ A VIP user is then allotted '2 invites each month and 2 when they renew their VIP membership. Power users may receive [sic] them at admin discretion from time to time but this is rare so do not rely on this happening. You can also get invites from the addons system'.¹⁰ I will return to donations and the addons systems in Chapter Five in the context of how private sites are funded. For now, it is enough to know that members have the option to either donate money or participate in external/off-site surveys in exchange for invites that they can distribute. In exchange for donation or survey participation sites will sometimes also confer special user status and grant access to exclusive site features, such as the privilege of receiving invites.

A similar invitation paradigm exists at SITE E where '[i]nvides are given out to power users twice per month at a random time, donors upon their first donation, and as prizes to contest winners'. Contests at SITE E can range from seasonal competitions, such as the 'top pumpkin carving competition' at Hallowe'en or the 'Holiday Toy Drive', in which members must post photographic 'evidence' of toys as they are being

⁸ Ibid.

⁹ 'User_classes [SITE D.org Wiki]', *SITE D* <[http://wiki.SITE D.org/doku.php/user_classes?s\[\]=vip&s\[\]=status](http://wiki.SITE D.org/doku.php/user_classes?s[]=vip&s[]=status)> [accessed 11 February 2012].

¹⁰ 'Start [SITE D.org Wiki]', *SITE D* <<http://wiki.SITE D.org/doku.php/start?>> [accessed 11 February 2012].

donated to a local charity, for which the members may then win prizes), to competitions to design various site logos and icons. Another site, SITE F, has an elaborate system for allotting invites and maintaining a consistent flow of new members. In addition to a one time allotment of two invites for those who donate to the site, SITE F distributes invites to members on a monthly basis based on their user class: Power Users and Elites receive one invite on the eighth day of each month, while Elites receive a second invite on the twenty-second day. Following this, there is a 'bonus invite' system in which members may be allotted extra invites, depending on the user class of their *prior* invitees. The site explains:

Every Power User or Elite user whose total invitee ratio is above 0.75 and total invitee upload is over 2 GB gets one invite.

Every Power User or Elite user whose total invitee ratio is above 2.0 and total invitee upload is over 10 GB gets one invite.

Every Power User or Elite user whose total invitee ratio is above 3.0 and total invitee upload is over 20 GB gets one invite.

The bonuses are cumulative. So if you qualify for the last bonus group, you also qualify for the first two and will receive 3 bonus invites. For example, an Elite user who fits in the third bonus category gets 4 invites every month on the 8th and the 22nd, whereas a Power User who fits in the first category gets two invites on the 8th and one on the 22nd. A Power User who invites bad users only gets one invite per month.

There is a hard maximum of 10 invites for all classes. You may only have 10 invites at a time. This limit cannot be exceeded by bonus invites given by the invitation script. Note that invites from donating and other events are not counted in this limit. You are allowed to invite as many users as you wish, but you may only have a maximum of 10 invites to send out at any given time.

The complexities of invite paradigms illustrates that private sites see invites as an important part of how they ensure that the site is populated by the types of members they believe will share and contribute to the site. It is a paradigm based on knowledge and trust, in so far as those who earn invites are presumed, due to their position within the sites hierarchy of user-classes, to likely surround themselves with similarly minded real life and online acquaintances. Thus, invites are a way for the sites to vet potential members based on their association with existing members who have demonstrated their

worthiness to the site. However, in other circles, invites to private sites are highly desirable commodities, and they are thus traded and at times sold on public and private Internet discussion forums.

Invite Selling and Trading

Since access to members-only private sites is restricted, numerous strategies have arisen to assist aspiring members in their hunt for invites. As mentioned above there are discussion forums specifically dedicated to negotiating for invitations to private sites and there are also sub-forums in almost any media-related discussion forum. Occasionally, administrators of private sites will actively recruit new members on these forums, such as in the case of a new site, but generally they do not. Such forums are primarily for individuals who are seeking out existing private site members who are willing to give away or trade unused invites. One discussion at *InviteShare* began with a simple plea in regards to SITE F or SITE E, which are both highly desirable primarily music-focussed sites: ‘invite please?’, asked one participant, to which another replied: ‘good luck with that..these are hotter than...*insert witty metaphor*’. Another writes, ‘I am in desperate need of an invite to SITE E’, while another makes the appeal: ‘hopefully someone can give me an invite. i would try to seed as much as i can, and once i get my own invites to send out, will send out to people in need (like me ;p)’.¹¹ Exchanges like this are not uncommon across all invite discussion forums. In many cases invites are traded in kind, though occasionally someone will simply offer an invite to another forum participant and expect nothing in return. It is also common for invites to be offered for sale. Depending on the desirability of the site and the perceived rarity of invites, prices for invites can range from US\$10 – 40 and sometimes higher.¹² In some cases members will sell their existing accounts, and these are especially valuable if an account has a lot of ‘buffer’, meaning that it comes with a high upload to download ratio. This would mean that the purchaser could stand to download a large quantity of material immediately upon joining the site without having

¹¹ ‘SITE F or SITE E’, *InviteShare*, 2007 <<http://www.inviteshare.com/community/viewtopic.php?id=1680>> [accessed 12 February 2012].

¹² ‘Two SITE D Invites for Sale 15dollar’, *InviteShare*, 2011 <<http://www.inviteshare.com/community/viewtopic.php?id=10235>> [accessed 12 February 2012]. In addition to cash transactions, some are offering invites in exchange for the fledgling BitCoin digital currency, see ‘Selling: SITE D Invites x 2 - Private Torrent Site - Scene Releases Only’, *BitcoinTalk*, 2011 <<https://bitcointalk.org/index.php?topic=18701.0>> [accessed 12 February 2012].

to worry about the account being suspended. I will discuss invite selling shortly.¹³

There are some third-party websites that claim to offer private site invites based on users' participation in web-based surveys. Though non-functional at the time of writing, the highly suspect Free Invites purported to offer invites from a variety of private sites and web-based services such as *Spotify* and *Google Wave*. The site featured links to online surveys where an interested party would be directed to complete a certain number of surveys in order to collect 'points' before they would be presented with a form to enter their email address, to which the site would then send an invite: 'It's easy, you complete surveys to get the [invite]. You collect points for every survey you take and when you reach 50 points you'll get your invite! Click on the "Cash out" button and you'll be asked to fill out your email address. The invite will be sent to that address'.¹⁴ It was noted that the site was able to offer invites because it came into possession of them from 'friends, or sourced from private IRC/forums. We never pay for our invites, neither should you' and that since 'We have no agreements with the websites that are on here [...] What you do with your account isn't our responsible [sic], it's yours'.¹⁵ Though the site is no longer operation, one can still visit the page; clicking on any of the survey links simply redirects to other pages of the site. *Free Demonoid Invitation Codes* is a similar 'invites-for-surveys' site which purports to offer access to the the semi-private site *Demonoid*. The following information appears on the site and details the process for obtaining and invite :¹⁶

Are you looking for a demonoid invitation code?

Torrent invites for demonoid! Get an invite to the best file sharing and exclusive private torrent tracker.

We have given away over 6,000 invites already! This website was created so you will not waste time begging on forums and other places.

Let me tell you the three easy steps in order to get a Demonoid.com invitation code RIGHT now.

1. Click below where it says 'FREE DEMONOID INVITES' you will be redirected to our code page.

¹³ '... I Have SITE D, Tti, Bitme, Revtt and More 4 Sale .. Lowest Prices Ever ...', *InviteShare*, 2009 <<http://www.inviteshare.com/community/viewtopic.php?id=4527>> [accessed 12 February 2012]. In this discussion, users were offering invites to BitMe.tv, *SITE D*, and others for up to US\$100.

¹⁴ 'Free Invites - Never Pay for an Invite', *Free Invites* <<http://www.free-invites.com/>> [accessed 12 February 2012].

¹⁵ 'Free Invites - FAQ', *Free Invites* <<http://www.free-invites.com/faq.html>> [accessed 12 February 2012].

¹⁶ 'Demonoid.me', *Demonoid* <<https://www.demonoid.me/>> [accessed 12 February 2012].

2. Fill out any of the surveys. Do not use fake information – it will NOT work.

3. Your code will be given to you immediately after you've finished the survey, GUARANTEED.

Seriously, that's all you need to do – try it once and you'll never be searching for a Demonoid code again. Enjoy the greatest place to download your files on earth!¹⁷

Clicking the 'FREE DEMONOID INVITES' results in a pop up window that offers the user two choices, they can either, 'Download All the Best Movies!' or, 'Play Heroes of Hella Today!' Clicking on either of these links directs users either to what appears to be an online movie service or a free games site. The legitimacy of these sites is questionable, since the URLs for the sites do not match the page titles. In the case of 'We Love Films', the first option, the URL is tracking-technology.com, while the game is 'Heroes of Hellas 2' and the URL is gogetfreegames.com. On either page, no survey is present but users are directed to download executable files or install browser toolbars. There is little reason to doubt that these sites and the downloadable files are anything but advertising tracking sites. The installed software would no doubt collect and report browsing information to a third party. Whether or not one would receive a Demonoid invite after participating in either of what these sites offer is debatable, though *Free Demonoid Invite Codes* does attempt to indicate some legitimacy through 'actual testimonials' such as this offered by 'Brad from London': 'I was skeptical [sic] at first but the key [invite code] really does popup after the survey, thanks guys keep this up'. It appears, however, that 'Brad from London' is the only satisfied participant to have offered a testimonial, since repeated visits to the page never feature anyone else's comments.

Private sites generally frown on the practice of sharing and selling invites on public web forums. Most sites are very strict about how their invitations may be distributed and often expressly forbid sharing and selling invites, users who are found to be doing so risk being banned from a site. In general, private sites encourage existing members to invite 'real world' friends and trusted Internet contacts. There are strict rules about who can and should be invited, and vivid descriptions of the types of punishments that will befall anyone who is found to be transgressing the rules. One site

¹⁷ 'Free Demonoid Invitations', *Free Demonoid Invitation Codes*, 2011
<<http://freedemonoidinvites.com/>> [accessed 12 February 2012].

requests that members ‘[r]emember to only invite people you know for real or have known online for a while. *DON’t* advertise on forums or any other public places as you’ll find yourself back to 0 invites or even worse, banned’. At another site it is made clear that ‘[t]rading and selling invites is strictly prohibited, as is offering them in public’, and at another members are told ‘[d]o not attempt to trade your invites to this site; also, do not offer invites in public forums etc. Do not sell invites to this site’. SITE D stresses that ‘[i]nvides are for giving to people you know and trust. Trading SITE D invites will get you and any one [sic] you invite banned’ and that ‘[i]f you come across an auction from someone claiming to have permission to sell invitations to this site, it’s a lie [...] if you buy an invite, we will know about it and you will lose your account’.¹⁸ Such warnings reveal the high priority that private sites place on the social element of private filesharing: engaging in exchange relations, either monetary or through trade, runs against the grain of the private site ethos, which is that it is first and foremost a system that has its foundations in social sharing.

Additional rules place responsibility on members themselves for the conduct of their invitees. For example, one site notes that ‘you’re completely responsible for the people you invite. If your invitees are caught cheating or trading/selling invites, not only will they be banned, so will you. Be careful who you invite. Invites are a precious commodity’. Another site notes that if anyone is caught selling invites, three members will be punished: ‘both the seller and the buyer will be banned, along with the person who invited the seller’. SITE D has perhaps the most specific summation of how they view the relationship between inviter and invitee, and it is one that does not only spell out potential punitive actions, but also stresses the responsibility of the member to the new invitee. The site begins with the now standard ‘[i]f you invite a cheat you will get a warning for the first one if it ever happens again you will be banned too’. The site further explains:

Please also be aware that you as the inviter are responsible for your invitees so help them out by making sure they read the site rules, general tips [...] and possibly suggest outside seeding for them in order to help them build a nice ratio buffer here. Dont just invite them and send them on their way.

This is where we find most users get banned and if we see this

¹⁸ ‘Start [SITE D.org Wiki]’, *SITE D* <<http://wiki.SITE D.org/doku.php/start?>> [accessed 11 February 2012].

happening, action will be taken to the inviter for choosing not to help the users they invite and just leave them to their own devices on a strange torrent site.

Multiple occurrences [sic] of this could lead to a warning on the inviter and if a user comes to us with help on basic things that the inviter should have covered then we normally do follow up on these [sic]. YOU are responsible for your invitees. If they cheat, its probable that the inviter didnt [sic] give them tips, guidelines on ratio, buffers, wait times, outside seeding etc.¹⁹

SITE D's invite rules go much further than other sites with respect to the idea that participation in private filesharing is something that involves a certain amount of training and knowledge transfer; in short this is a kind of pirate pedagogy.

Such an approach echoes what I have noted above: that filesharing in general, and private filesharing more specifically, are not as immediately open and accessible as they are often made out to be. SITE D's emphasis on nurturing 'proper' conduct on the site further aligns with other site ideals, such as the importance of maintaining a certain amount of discipline with regards to sharing habits, and with the wider role that technical proficiency and knowledge of specific social and cultural customs plays in BitTorrent sharing. Lack of knowledge of these customs, or blatant disregard for the rules or regulations of private sites usually results in the only real form of 'punishment' available to the site's ownership: a member or invitee is banned. The following example illustrates the difficulties faced when a member does break a site's rule about not selling invites.

In February, 2007, members of the now defunct, but highly desirable private site SITE G discovered that one of their own was selling invites to the site via the online auction website eBay. What transpired makes this one of the more interesting, and most well-known cases (at least in the torrent world) of invite selling. SITE G, like most other private sites, was explicit about the ban on selling invites, and the rule was displayed prominently on its main publicly accessible login page viewable by members and non-members alike:

The sale of invites to this site is strictly forbidden and results in both the inviter and invitee losing their accounts. If you come across an auction from someone claiming to have permission to sell invitations to this site,

¹⁹ 'Start [SITE D.org Wiki]'.

it's a lie. Do not believe positive feedback ratings; if you buy an invite, we will know about it and you will lose your account.²⁰

The case of the SITE G invite seller demonstrates just how offensive the idea of selling invites is, not only to the site operators, but to the wider site membership, who appear to adopt a negative view of the role of money and commercialism in general within private filesharing (with the exception of the role played by money in donations). It shows especially the general disdain towards attempts to profit individually from association with these sites.

Soon after members discovered that there were auctions for invites to SITE G on eBay, participants in the SITE G discussion forums rapidly disseminated information about the sale and mobilised in order to comb the Internet for information about the seller. Over the course of a few days, forum participants contributed information that they had gleaned from publicly accessible Internet resources, using as their starting point only the seller's SITE G username and email information provided on his eBay auctions. Eventually, a 'profile' of the seller emerged that included a picture, information pertaining to his age, ethnicity, locale complete with MapQuest directions to his house, education, and his online profiles on websites such as the social network MySpace, the online classified ad service Craigslist, and other filesharing communities. Due in part to the seller's use of his father's eBay account to sell the invitations, members were also able to retrieve information about his family, including a picture of his father. This information was briefly made available via a publicly accessible webpage hosted at SITE G, which the administrators ultimately took down for reasons that they did not fully explain, but which appear to be influenced by the membership's forum discussion which took some dramatic turns. At one point midway through the forum discussion, the site's principle administrator and founder, 'SITE G', offered the following with regards to publicly sharing the seller's information, which at this point had been removed from the SITE G website: 'Feel free to post it anywhere'.

A heated debate emerged in the forum discussions regarding how to effectively punish the seller for his transgression of the SITE G's well-articulated rules. Many comments stressed that the site's goals were primarily anti-profit and emphasised the strong commitment to an ethic of sharing, such as the following two suggestions for punishment:

²⁰ Note that the SITE D text above is taken directly from SITE G's prohibition of invite selling. SITE G has had a lasting impact on the private tracker scene as almost all private sites borrow from SITE G's invite selling policy; in spirit, if not the text itself.

- 1) fuck em. the community comes first and people shouldnt [sic] be making money from this place. just like if a member was flogging stuff at a market of music downloaded from here. would you be so sympathetic then? share files, invite other peoples but dont [sic] cash in on what goes on here.
- 2) he sold something that costs nothing. It's a scam. The people who bought those invites got ripped off. Even if you don't give a shit about SITE G...you have to acknowledge that making 300+ bucks selling free invitations to BT sites is just the slightest bit shitty. And let's not forget that anybody who inadvertently passed an invite along to this joker most likely wound up banned from SITE G. So they got fucked, too. And, finally, bear in mind that this site is maintained by people who donate their time freely (I'm guessing). The people who built this site and keep it running see very little (if any) financial reward for what is (judging by these forums) thankless work. And now some little punk is earning [sic] his meth money off of their effort—and the harder they work to make this site great, the more money this kid stands to make scamming other teenagers out of their \$39. I think I can understand why SITE G might be a little ticked off by that.

Upon discovery of his (it was quickly reveal that the member was male) actions and account details the seller's SITE G account was disabled almost immediately. But, for some who contributed to the information gathering process and the ensuing discussion surrounding potential punishments, this response did not match the infraction—the punishment did not befit the 'crime'. Many contributors advocated a form of discipline that stretched beyond SITE G's virtual world and crossed over into 'real' life. Suggested punishments ranged from practical jokes to corporeal punishment, some of the more interesting options included:

- 1) 'someone should ring 15 pizza companies top [sic] deliver to his front door for pay on delivery - someone from NY of course. Now that'd be amausing. [sic]'
- 2) 'I wonder if anyone would put pepperoni in the shape of a piggy [the site's logo] with the word 'SITE G' spelled out in green peppers if you paid 'em enough?'
- 3) 'i think it would be interesting to find his school and notify them as to his

illegal exploits’.

- 4) ‘how about creating a blog or something similar, using an anonymous proxy for security perhaps, and tell as much of the story as is possible’.
- 5) ‘My plan is to call him or his dad this weekend, and...I can record the convo on the computer. if it’s any good, I’ll post the audio file’.
- 6) ‘I suggest we pool all our money, take the whole community on a trip... line up, and kick this guy in the nuts, one person after another [sic]’.

These comments, though largely tongue-in-cheek and posted in the heat of debate, nonetheless indicate some interesting intersections of technology, commodity culture, and violence.

The first two comments reveal the flexibility of certain members of the community with regards to the role of money: while it is inappropriate for a member to profit from selling invites, ordering several pizzas to be delivered appears as money well spent! The notion that perhaps the invite seller’s school should be notified is a strange one indeed. If the ‘illegal’ activities alluded to are the invite seller’s participation in a filesharing community (downloading copyrighted music), what exactly could the school administration do about this? If the illegal activity is the selling of SITE G invites, then, again, what would contacting the school accomplish? The suggestion to create a blog is one of the more interesting ideas circulated on the forum. Here we see the continued use of Internet technologies to engage in punishment, essentially via character assassination (or so the poster would hope). An assumption is made that the public (those outside the SITE G forum) would share the same horror upon reading about the invite seller’s actions. It is reasonable to assume, given that BitTorrent filesharing in general, and private filesharing in particular are such niche activities, that most people would react with ambivalence and likely identify the hypocrisy of the community’s stance. One can imagine comments such as ‘it is an *illegal* site, after all—what’s so wrong with trying to profit off of it?’ or ‘isn’t this just a taste of their own medicine? Now the filesharers are getting ripped off!’ Indeed, reactions of this sort were common in personal conversations I had about the research for this chapter. The final comment takes punishment out of the technological realm and places it squarely in the realm of the corporeal. While it is unlikely that this actually happened to the invite seller (though there is no way to truly know), there were other comments that echoed this sentiment. In addition to perhaps causing other members to think twice about offending the ideological orientation of the community, comments of

this ilk are, though hyperbolic, good indicators of just how deeply offended certain members of the community were.

The discussion also provoked dissent among some members, who believed that simply banning him and disabling the accounts of those who purchased invites from him was sufficient punishment. They were concerned that the desire to cross from virtual punishment into real world punishment was going too far, that it was more in line with revenge and thus not in keeping with the codified laws of the site. A vociferous debate concerned the ethics of publicly posting the seller's personal information, particularly information about his family, and whether by doing this the administrators were going too far. Many suggested that such measures merely centralised information that was already publicly available. Their responses, in combination with the community's general attitude towards the seller's actions, indicate that simply disabling his account and banning him from the site was inadequate punishment in light of an infraction that offended the site's central values. Those who contributed to the discussion struggled to establish what precise form it was that punishment should have taken, yet what exactly would constitute a fitting punishment remained unclear. What this struggle revealed was that the disciplinary strategies of private sites can not effectively cross the boundary between the virtual space of the Internet and the materialities of the world outside the sites. The discussion at SITE G further indicated the complexity of the relationship between the presumed anti-capitalist (or at least anti-music industry) ideological framework and that of the real world: more than one contributor perceived a disconnect between SITE G's disciplinary campaign against someone who had broken its virtual 'laws' and the questionable 'real world' legality of the site's actual practices.

There was also concern over how the seller's actions might carry adverse legal implications for the community. And indeed, it was only a short time after the debacle involving the invite seller that SITE G itself was subject to a shutdown as a result of coordinated actions by British and Dutch police.²¹ A contributor at the *Filesharing Talk* online forum presciently shifted the question of legality from inside the SITE G paradigm to within the legal framework of (presumably) the United States:

This is taking it too far because it's putting SITE G at way high risk of the kid calling the police about people harrassing him [sic]. Then the

²¹ 'Huge Pirate Music Site Shut Down', *BBC News*, 23 October 2007, section Tees <http://news.bbc.co.uk/2/hi/uk_news/england/tees/7057812.stm> [accessed 12 February 2012].

police take a look at the webpage on SITE G with his details, go wtf? and start investigating. Next thing you know, they're trying to 'infiltrate' private filesharing sites in some insane 'investigation' which they will be ridiculously proud of. Then one day we'll be watching TV and there'll be some documentary with some idiot cop bragging about how they infiltrated all these 'underground websites' with people plotting to harrass [sic] some 16 year old kid from the Bronx who was selling on ebay. Anyways, the police and any media coverage would have about zero sympathy for the filesharing sites, whereas nobody would really pick on a 16 year old kid. So at the end of the day, it is dumb as hell to go after this kid like this.²²

This was not the only reference to the confusion over the legal threat to SITE G should it have come under scrutiny from industry organisations like RIAA or state authorities like the FBI. Some members suggested that neither of these bodies had any jurisdiction over SITE G given its UK/Netherlands connections, while others suggested that they were sure that the RIAA and FBI probably already knew about SITE G and that, they suspected, there were members of SITE G who worked for these organisations. The discussion at SITE G touched upon these legal concerns numerous times; members questioned the usefulness of the site administrators contacting eBay directly (which apparently was not actually done); they debated the legality of their public exposure of the invite seller, and whether or not he or his father could sue the site for harassment. Most of the contributors offered less-than-expert legal opinions and the topics were soon abandoned. Regardless of legal expertise among the SITE G membership, however, it is clear that the complexities of how the seller should have been punished and the various factors that would have affected any 'real world' intervention played a crucial role in the discussions. While there were reports throughout the discussion of members having made verbal or online contact with the seller—it was also referenced at *Filesharing Talk* that the seller had been physically accosted—it is unclear whether any of the threats of real-world retribution were actually carried out.

The politics of invitations are one of the more fascinating elements of private BitTorrent filesharing. They reveal much about the economics of private sites, both at the level of the sites' own sustainability in relation to 'real world' operational costs, and

²² 'SITE G Invites Seller', *Filesharing Talk*, 2007 <<http://filesharingtalk.com/threads/153256-SITE-G-invites-seller>> [accessed 12 February 2012].

at the level of their own internal economies of media data. A membership committed to sharing media will keep a private site active and desirable, and such a site is liable to attract those who share a desire to contribute both new media and potentially money in the form of donations. This is discussed further in Chapter Five. The desirability of private sites is also what spawns some of the more creative means of gaining access to the sites, such as the invite trading forums and third-party survey sites. However, the private sites themselves appear to reject the notion that membership should result from a commodity transaction at the very same time as the invites themselves seem to circulate as a form of commodity on discussion forums.

What is crucial to note is that many of a private site's goals, such as a diverse membership or a steady flow of new material would potentially be enhanced by a growth of membership through whatever means, including through the purchase of membership. However, the invite paradigm suggests an ideological tension between the type of activity that goes on at a private site—sharing media without the immediate use of a universal equivalent, money—and the use of the same universal equivalent to gain access to this mode of free circulation. The two are made to appear incongruous both in the sites' rules the stance adopted by many members. The implication is clear: someone who is willing to pay money for an invitation is someone who is neither capable of nor willing to embrace the social customs and cultural elements of filesharing. They are presumed to reject the labour involved with spending time on public sites, learning about private sites, and then developing either real world or trusted online connections with other filesharers. It is presumed that someone who is content to buy their way into a private filesharing site can neither appreciate nor value the role of reciprocity and obligation that forms a major part of private BitTorrent filesharing. The commodification of access to private sites performed by invite sellers, trading sites, and invite buyers erases or mystifies—as does any commodity—the social relations that are fundamental to the actual activities of filesharers.

APPLYING

Though invitations are the primary means for becoming a member at a private site, there are other ways to gain access. On occasion, private sites will accept applications for membership. The application process involves filling in web forms that are used to assess an aspiring members knowledge of a particular site's rules and which ask potential members to attest to the reasons they want to belong to the site, what they

will contribute, and so forth. In December 2011, SITE H, a popular high definition video-focussed private site opened up applications for a limited time.²³ The SITE H application begins with four questions, the answers for which are drawn from the site's rules, which Applicants are asked to familiarise themselves with before answering the questions.²⁴ The multiple-choice applications ask: 'After how long will my account be deleted if I don't log in? What is the minimum traffic limit I have to make each month? What is the minimum ratio I have to keep? What languages are you allowed to use on torrent comments?'. The answers to these questions are found in the site's rules, which make filling out the application correctly a relatively easy process since one need only consult the rules page and scan for the sections that address these questions. Indeed, a simple keyword search using a browser's in-page search capability would make it even easier. Upon correctly answering the questions, the second step in the SITE H applications requires that the applicant enter name, email, and country information (none of these are verifiable and thus a standard practice is for private site members to use an anonymous email address and username). The site requests information about the applicant's Internet service provider, their upload and download speeds, and a link to a SpeedTest result.²⁵ This information helps the site administrators determine whether or not an applicant is even capable of sharing high definition video given the large amounts of bandwidth required to do so. Applicants are asked to note how long they have been filesharing, whether they are active on other private sites, and to provide information about how they share torrents (i.e. their computer set-up, BitTorrent client, and so forth). Finally, applicants are asked to indicate how they came to know about the SITE H, why they wish to join, and how they think they can contribute to the site. After submitting the application one must wait for an email decision by the site administrators.

The process is similar at other sites, with some notable additions to the questionnaire. At SITE J, a ratio-free private tracker that at the time of writing seemed to have been shut down, an applicant is asked to provide screenshots of their profiles at

²³ 'SITE H'.

²⁴ See 'Application Form', *SITE H* <http://www.SITE H.ro/application_form.php> [accessed 12 February 2012] and 'SITE H.net V3.06 Beta :: Rules', *SITE H* <<http://www.SITE H.ro/rules.php>> [accessed 12 February 2012].

²⁵ *SpeedTest* is a popular site for Internet users to determine the bandwidth capacity of their Internet connection. Visiting the site offers users a user friendly means for conducting a test of their connection and either a link to or a downloadable graphical representation of their results. It has become standard practice for private sites to require this information as part of applications or interviews. See 'Speedtest.net - The Global Broadband Speed Test', *SpeedTest* <<http://speedtest.net/>> [accessed 12 February 2012].

four other private sites with all information visible.²⁶ Applicants are instructed to ‘Post BOTH links and images. Do not blur out anything, applications with blurred out details will be rejected’. This is a common request in applications and in interviews (which are discussed below). The profile screenshots and links will be used to determine how active an applicant is in sharing torrents at other private sites and how much they participate in discussion forums, because member profile pages feature such items prominently. Furthermore, an applicant who can satisfy the criteria of four profiles, especially if the profiles indicate that they have positive sharing habits, indicates to the site administrators that the applicant is willing to participate in discussions and is also potentially able to bring new material to the site (since they will likely have shared a great deal at these other sites). This logic for assessing a candidate’s potential as a member is further reinforced in SITE J’s request for two more screenshots from non-BitTorrent-related forums.

Applicants’ technical knowledge is also tested with questions like: ‘Do you know how to forward and optimize your client?’ and ‘Do you know how to rip, encode and upload torrents?’. Some of the questions would likely be unanswerable by a novice filesharer: ‘Do you have a box?’ is a question that refers to a seedbox, which is commonly dedicated off-site computer for which a filesharer pays a monthly fee to seed files constantly at high speeds. Seedboxes are discussed in greater detail in Chapter Five. Again, the point I want to stress is that gaining access to a private site is not as easy as much piracy discourse suggests. A considerable amount of technical knowledge is necessary not only for understanding the questions, but also for knowing how to engage with taking screenshots of profile pages and providing links to *SpeedTest* results.

SITE J appears to place emphasis on invitation trading in their application process. They ask applicants to offer their opinions on the practice of trading invites online and to reveal whether they themselves have ever been involved in invite trading. The application compels applicants to ‘be honest because you can be assure [sic] that if you lie you will eventually be caught! Honesty pays’. However, the site stresses that ‘there are merits to every view, so we would like to know what is your take on this matter’, which suggests that SITE J may not entirely object to the practice of invite trading. The questionnaire finishes with a rather strange leading question: ‘If a friend you just met recently on an online forum asks you what is PtN and whether it is a great place, what will you tell him?’. One can only speculate as to the ‘correct’ answer here. A

²⁶ ‘Come and Play?’, *SITE J* <<http://SITE J.net/login10.php>> [accessed 12 February 2012].

clue is revealed in an article on SITE J's application process published on *FILEnetworks Blog* in which it is stated that 'PTN tracker rules prohibit displaying the full tracker URL in public'.²⁷ SITE J thus appears to operate under a type of 'Fight Club' logic, in that no one ought to talk openly about the existence of the site, despite the fact that, as dr5678903 commented on the same *FILEnetworks Blog* post, 'url name is dead-easy to find .Google + 2min = success Try googling "PTN tracker url"'.²⁸

Approaches to successfully 'passing' the applications process are found throughout the Internet, largely through the same peer-to-peer focussed blogs and news sites noted earlier. At *FILEnetworks Blog*, for example, there was a healthy discussion about what the SITE J application process entails. Some commenters found the applications to be 'ridiculous', while others, frustrated that *FILEnetworks Blog* adhered to SITE J's rule regarding the publication of the site's URL begged, 'some one [sic] plz tell me how to get the "url" plz I dont no [sic] this'.²⁹ Another commenter tried to temper the more conspiratorial views of SITE J's application process, and offered a measured appraisal of the aims of the application process:

It's not about answering the questions right. [...] they want to make sure you'll be active in the community and on the tracker itself. They want members who actively contribute to the forums and tracker, not people who are collectors or cheaters. And lurkers (i.e. people who browse the forums but don't post) are just as bad as a collector. From the questionnaire, staff can examine your Bittorent habits and how active you are on other forums.³⁰

Others reinforced suspicions about the motives of the application and objected to the request for screen shots from other private sites: 'A tracker that wants links AND pics of 4 of your current trackers, plus more, I would be VERY wary of. NO tracker would/should EVER ask this...EVER!' and 'they ask too much and want us to do much stuff to sign up', while another, presumably a member or former member of SITE J, offered this appraisal: 'Probably the most overrated tracker ever on the internet'.³¹

²⁷ TEAM FILEnetworks, 'FILEnetworks Blog: PTN Ratio Free Movie Tracker – Invite Applications Open Again', *FILEnetworks Blog*, 2009 <<http://filenetworks.blogspot.com/2009/05/ptn-ratio-free-movie-tracker-invite.html>> [accessed 12 February 2012].

²⁸ So named for the film *Fight Club*, in which members of the underground pugilistic social group are instructed that the first rule of Fight Club is that 'you do not talk about Fight Club' and that the second rule is that 'you DO NOT talk about Fight Club'. See David Fincher, *Fight Club*, 1999.

²⁹ TEAM FILEnetworks, 'FILEnetworks Blog: PTN Ratio Free Movie Tracker'.

³⁰ Ibid.

³¹ Ibid.

INTERVIEWING

A few private sites offer membership via an Internet Relay Chat (IRC) interview process in which aspiring members are asked a series of questions not dissimilar to those asked in the application questionnaires. However, interview questions are much more detailed and numerous. Moreover, interviews are constrained by the requirement that they answer the questions within a given timeframe. Sometimes interviews are available only at certain times throughout the year, such as those at SITE J, SITE K, and SITE L, while other sites, such as SITE F, will have year round interviews.³² The rationale for interviews offered by the sites is the same as that which they offer for having application periods and open signups (see below): the sites wish to be able to moderate the flow of new members. I'll describe the SITE F interview in detail following a brief introduction to the site and I will take up the site itself in more detail in Chapter Five.

SITE F, which is nearly universally regarded as the most desirable of the music-focussed private sites is most notable with regards to interviews. At the time of writing, the site's membership had an upper limit of 200,000 and there were approximately 150,000 registered members, an average of 80% of whom were actively sharing files each month. Roughly half of the entire membership has been invited by existing members while about one third of members participated in the interview process in order to gain entry. The site indexes approximately 1,275,000 torrents, approximately 1,150,000 of which are music, though the site does index e-books, instructional videos (but no movies or television), software, comics, and audiobooks. At the time of writing, there were approximately 8 million peers (the majority of whom are seeders, with only 100,000 or so leechers).³³ These participants were sharing over 500,000 different releases by approximately 480,000 artists. In all, more than 65 million torrents had been downloaded from the site. In comparison SITE F's primary private site 'rival', SITE E, indexed around 300,000 torrents shared by approximately 1,250,000 peers. *Demonoid*, a popular semi-private torrent index reported fewer than 500,000 torrents from all categories (video, audio, software, etc.) with only 120,000 music-related

³² See 'SITE K :: 登录 :: CHD联盟PT站 :: 高清爱好者的乐园 - Powered by NexusPHP', *SITE K* <<http://SITE K.org/login.php>> [accessed 12 February 2012]; 'SITE K :: Login', *SITE K* <<http://SITE K.net/login.php?returnto=/>> [accessed 12 February 2012].

³³ Remember, seeders and leechers do not refer to individual members, but rather to their participation in torrent transfers. It is possible, and common, for members to seed or leech multiple torrents simultaneously.

torrents while *BTJunkie*, a recently shuttered major public torrent meta-search reported approximately 25,000 audio-related torrents indexed from several hundred public trackers. It is important to note here that these latter statistics, in contrast to SITE F, include a great deal of duplicate content, audio at different bitrates, and, in the case of the public sites, potentially corrupt content. The crucial SITE F statistic is the 500,000 ‘releases’, which, accounting for the fact that only a small percentage of these releases are from categories other than music, indicates discrete albums and not multiple digital encodings of the same albums. Considering this, SITE F outdistances many of the more popular public and private torrent sites when it comes to music. And it is for this reason that the site is so desirable.

SITE F pioneered the interview approach in its earliest days in order to promote a more egalitarian way of ensuring participation in the site while also ensuring that those who did become members were considered to be the type of people well-suited for a private site. A contributor to *FileShareFreak*, a filesharing blog and news site, notes that private sites which interview potential members ‘want quality members over quantity—not a database full of members who signed up but never return again’.³⁴ SITE F’s founder indicated in a 2009 interview conducted by one of SITE F’s administrators that, ‘with the success of the interview process, we can ensure that a great deal of new users are deserving people who will contribute to the site. And it doesn’t make sense for me to block these people from joining a music-sharing site’. Later in 2010, during another on-site interview, the founder offered some historical context for how the interview process emerged:

When we started, there was an unofficial [invites IRC] channel [...]. Invites were given to anyone who was fortunate enough to stumble upon that channel. I encouraged/begged/otherwise convinced the inviters to ask their potential invitees questions such as “what is a transcode?” before sending them invites out of the blue. But hundreds of crappy people kept being invited, so we eventually shut the channel down. Then we spent the next few months hunting invite traders, sellers, and giveaways [sic] on public forums, which produced even worse users than the invites channel did. So one of our staff members [...] had the idea of starting the channel up again, but strictly controlling access. So

³⁴ ‘The Essential Guide To Getting Into Private Trackers’, *FileShareFreak*, 2009 <<http://filesharefreak.org/2009/06/18/the-essential-guide-to-getting-into-private-trackers/>> [accessed 12 February 2012].

he [...] and I went about creating the first modern [invite IRC channel] [...]. After we got our list of policies and questions, we got a few VIPs/elites to start inviting, and word spread. And it's grown larger and more sophisticated ever since :)'

There are two key elements here. First is the founder's mention of the 'hunting' of members who were trading, selling, and giving away invites on public forums. Much like the search for the SITE G invite seller mentioned above, the hunt took place in an attempt to enforce the site's prohibition of such activity, a prohibition that is based, as it was at SITE G, in a desire to limit the potential for including users who would not live up to the site's strict standards. Secondly, the interview process seeks to reinforce this exclusivity, and is based in the same logic. In general, private sites are marked by their high quality content in contrast to the more open public sites, which as I noted in Chapter Three are subject to corruption and duplication of content due a lack of oversight, largely by design, of shared media content. Private sites are also known for having strict rules that govern the quality of content with regards to audio and video digitisation and encoding. I'll take up these rules and regulations in greater detail in Chapter Five, but for the moment, private sites do not generally permit low-bitrate lossy audio, and they usually must be encoded from a lossless source, such as the original CD or a lossless digital audio file. This is unlike the diversity of material found on public sites, which track mp3s of varying bitrates and have no rules regarding technical quality. This is what SITE F's founder is referring to when he implored those on the original invite channel to ask questions such as, 'what is a transcode?'; just knowing what a transcode is, and that it is highly undesirable in audio terms, is something that only an advanced filesharer would likely understand.

The interview process, like the application and invitation processes above, is designed to filter out and ultimately exclude those aspiring members who have little knowledge of how to digitise and encode audio or video and to reward those that do have this knowledge with membership. Furthermore, as I will demonstrate below, the 'character' of potential members is also of importance since the site also wants to ensure that the people they let in are committed to the idea of sharing, and are not simply there to procure media without contributing both to the constant flow of media content or the social aspects of the site. The desire to ensure quality and commitment to site ideals is combined with the notion that 'deserving' people should be provided with a way of gaining access to the site, despite not having access to another member who could invite

them. SITE F's approach to its membership roster is certainly less exclusive than many other private sites and demonstrates that, above all else, a knowledgeable membership that is committed to sharing high quality music is of primary importance to the site.

The exclusionary nature of private media piracy seems to be both challenged and reinforced by the interview process. It is challenged because the interview offers an opportunity for anyone to join a site without having to be 'in the know' in order to receive an invite. Instead one can be allowed access based on merit. Access is granted on the basis how well one understands audio encoding, how committed one is to sharing music, and so forth. The exclusionary nature of the private sites is reinforced because here is a wholly different type of exclusion based on those very same merits: the not inconsiderable technical knowledge a SITE F interviewee gains in their preparations for the interview places them in a group apart from the everyday Internet user who casually seeks out peer-to-peer venues in order to download some music. Here, the primary difference between public and private sites is placed in full relief. A public site is concerned to function as a hub through which digital cultural production can be made available to all. Such sites have little to no restrictions or barriers based on social connections or technical acumen. But they do so often with a similar commercial logic that leverages information about audiences as a means to sell advertising. A private site, in contrast, begins from a logic of exclusion, either social or technological, and does so in the hopes of combating some of the negative outcomes of the egalitarianism of public sites such as poor quality or corrupted media. Moreover, private sites also tend to reject the logic of audience commodification through advertising, and prefer instead to fund their operations through donations. Donations, advertising, and audience commodification are taken up more in chapters Five and Six.

SITE F Interview Preparation

In advance of sitting the SITE F interview aspiring members can avail themselves of a variety of study guides and posts on blogs and in online forums in order to gain a sense of what is expected in the interview. For example, *Torrent Invites V3* has a forum topic entitled 'SITE F Interview: TIPS and TRICKS' in which the author guides interviewees through the process and also presents some of the actual questions asked in the interview. The forum topic begins:

You will be asked some personal information at the beginning, e.g. where do you live, your e-mail, possibly your nationality, and additional

different crap just to disturb your privacy.

Since the SITE F is very concerned about lossy format uploads (along with lossless), they want to make sure you understand lossy formats. You basically need to learn to distinguish lossy format names from lossless format ones.³⁵

These are the two main facets of the SITE F interview. The technical knowledge required by an interviewee is considerable and requires formidable competency with audio encoding and decoding software, familiarity with terminology related to digital audio and BitTorrent more generally, and a thorough knowledge of the site's specific rules regarding the types of audio permitted on the site. Interviewees are sometimes asked to interpret a spectral analysis of an audio file, which is a visual representation of the frequency ranges of a given digital audio file. Usually, such analyses are employed to determine if a file has been 'transcoded' from one lossy format to another, which is prohibited on most private sites. If a file has been transcoded in this way the spectral analysis will reveal a low frequency range and other tell-tale artefacts of the transcoding process, which will indicate the fidelity of the digital audio.

SITE F assists interviewees in preparation for the interview through the website *What CD: A Beginner's Guide*.³⁶ Here one finds information on how to join the appropriate IRC channel, how to prepare for the interview, and what to do once the interview is completed. The site welcomes potential interviewees:

You have just taken your first step toward becoming a member of SITE F! After acquainting yourself with our acceptable transcoding policies, BitTorrent, various audio formats and codecs, etc., you'll be ready to interview for an invite to the best private music tracker today, SITE F.

Are You SITE F Material?: SITE F is expecting new users from #SITE F-invites to be contributing members to the community. If you are going to get banned for cheating, ratio mismanagement, etc., you are not welcome here. SITE F is looking for members who will be active amongst the community, interested in music, and willing to share by uploading music from their own collection. Be forewarned, seeding to an

³⁵ 'SITE F Interview: TIPS and TRICKS', *Torrent Invites V3*, 2011 <<http://torrent-invites.com/miscellaneous/168535-SITE-F-interview-tips-tricks.html>> [accessed 13 February 2012].

³⁶ 'SITE F: A Beginner's Guide', *SITE F: A Beginner's Guide* <<http://www.SITEFinterviewprep.com/>> [accessed 13 February 2012].

acceptable ratio on a private tracker, such as SITE F, is much more difficult than on a public tracker. If you have never used BitTorrent, do not bother interviewing with SITE F. Instead, visit The Pirate Bay.³⁷

With that introduction, the aspiring member then visits the main section of the website, which offers a highly detailed primer on the technical information that an interviewee may be tested on during the interview. But first, the site offers the following stern warning in centre-justified, bold, red text:

At no time during the interview should you search for answers via Google, Yahoo, or any other search engine or wiki. Research is to be done before the interview. If you are caught researching during your interview, it will result in a permanent ban from the channel. Researching during an interview demonstrates a lack of respect for the interview process.³⁸

It is clear: SITE F does not want potential members to search through the plethora of online sources that have divulged information about the interview, and nor do they want their potential members to simply answer the questions by rote. The site wants people with a great deal of pre-existing competency in matters related to digital audio and filesharing.

Again, a type of pirate pedagogy is in operation here. The provision of a freely accessible study guide is one way in which knowledge about digital audio and filesharing can circulate. At the very least, should one have followed the site's warning to the letter, and only relied on the study materials provided, one will have learned a great deal about these topics, regardless of whether the interview itself is successful. Indeed, after reading this thesis it is entirely likely that the reader would be able to successfully pass the SITE F interview too! The guide offers information about the technical details of audio encoding. The much longer explanations on the site have been abbreviated below in order to offer the reader some familiarity with the terminology, since many of these terms are referred to in the interview itself, in the rules and regulations of private sites, and throughout this thesis:

Lossless Compression: 'Lossless compression is a compression methodology in which the result of the compression can be faithfully restored, i.e. bit-by-bit identical with the uncompressed data. [...] lossless

³⁷ 'SITE F: A Beginner's Guide'.

³⁸ 'SITE F: A Beginner's Guide Prepare for the Interview', SITE F: *A Beginner's Guide* <<http://www.SITEFinterviewprep.com/preparefortheinterview.html>> [accessed 13 February 2012].

compression for audio is especially tuned and designed for the characteristics of waveform data, thus achieving compression far greater than that of generic compression utilities’.

Lossy Compression: ‘Lossy compression is a compression methodology that significantly reduces audio file size by discarding information imperceptible to humans. The amount of audio information discarded is dependent upon the target bitrate selected at the time of encoding’.

Container Formats: ‘Although WAV and AIFF are formats not allowed on SITE F, it is important to be aware of these formats. As ‘container formats’, WAV and AIFF can hold uncompressed and compressed audio data, however for interview purposes, these formats will most likely be used as examples of uncompressed lossless audio data (PCM)’.

Bitrates: ‘A bitrate is the data rate (i.e. how many bits get transferred in a certain amount of time) and is usually expressed in bits per second. The three types of bitrates used when encoding audio are average bitrate (ABR), constant bitrate (CBR), variable bitrate (VBR)’.

LAME: ‘LAME is the SITE F recommended encoder. Developed by the open-source community since 1998, LAME has become the highest quality MP3 encoder’.

Transcodes: ‘transcoding means converting a file from one encoding method (i.e. file format) to another. Transcoding can be performed from lossless to lossless, lossless to lossy, lossy to lossy, and lossy to lossless’.³⁹

Explanations on the interview preparation site are much more in depth than what I have noted above. They include references to which types of lossless and lossy formats are acceptable on SITE F, and which types of transcodes are allowed. There is also information about the BitTorrent protocol and a list of ‘whitelisted’ BitTorrent clients, which are those BitTorrent clients that are deemed acceptable by the site because they are not equipped with settings that allow users to cheat the trackers’ statistics gathering processes (which could artificially influence a users ratio, either intentionally or accidentally). I’ll address the importance of the ratio to private BitTorrent filesharing and detail the role and nature of the rules and regulations on private sites in Chapter Five. The SITE F preparation guide concludes with a thorough explanation of the site’s

³⁹ ‘SITE F: A Beginner’s Guide Prepare for the Interview’.

rules regarding acceptable types of audio, members behaviour in the forums, and the importance of contributing to the site both in terms of content and also socially.

The SITE F Interview

So prepared, an interviewee will proceed to the appropriate IRC channel to announce his/her intention to interview:

Connect to IRC Server: irc.SITE F-network.net Port: 6667 (6697 for SSL).

Type “/join #SITE F-invites” in your client.

Visit <http://www.speedtest.net> (from your home connection), and copy the ‘Direct Link’ of your test.

Have links to your user profiles at other private trackers ready.

Type !queue <direct link> (e.g. !queue

<http://www.speedtest.net/result/1.png>).

Wait patiently until you are interviewed.⁴⁰

As in the application scenario above, the *SpeedTest* link is meant to give the interviewer a sense of what types of speeds an interviewee’s Internet connection is capable of attaining. Slow download speeds make participation in filesharing a frustrating experience for users because of the length of time it takes to download the large files that BitTorrent is generally used for. From the perspective of the private site, and due to the nature of the BitTorrent protocol, a user with slow up and download speeds will be less able to contribute to the site by sharing data they have downloaded, which is of primary concern in a community that is dedicated to sharing media content. Finally, slow upload speeds will make it very difficult for a new member to maintain a positive ratio of uploaded to downloaded data, and thus they may run the risk of not satisfying the site’s ratio requirements. The SITE F interview itself can take up to 1 ½ hours, depending on how long one must wait before they are asked to begin, and depending on how long one takes to answer the questions, and whether or not any problems arise during the interview. Throughout the interview questions are asked roughly ten at a time, which suggests that the interviewers are working from a script from which they can cut and paste the questions into the IRC chat window. Interviewees type their responses to each question one line at a time and include the questions number on each

⁴⁰ ‘SITE F: A Beginner’s Guide How to Join’, SITE F: *A Beginner’s Guide* <<http://www.SITE Finterviewprep.com/howtojoin.html>> [accessed 13 February 2012].

line. The interview focuses on four general themes: biographical information, technical knowledge, the ‘character’ of the interviewee and their familiarity with and commitment to upholding the site’s rules.

The initial questions are presumably similar for each interviewee and they are largely biographical: interviewees are asked for their age, email address, and location. Since the final request for location is easily discernible by an IP address search, there is no point in an interviewee falsifying this information. Interviewees then report if they are on their home Internet connection, their primary language, if they have ever held an account at the site, whether or not it is their first interview for the site, and if they are members at any other private sites. An affirmative answer to the final question will prompt something like the following: ‘Please take a screenshot of your profile page, making sure that this chat is also visible. Your entire computer screen must be visible. DO NOT crop or edit your screenshots in any way except blacking out your passkey’.⁴¹ This is a request that the interviewee provide screen shots of their profiles from a few of the private sites to which they belong, and is a similar requirement to that which was found in the application process outlined earlier. The reason for asking that the interview chat window is visible in the background is presumably to demonstrate that the screen shots are not outdated and that the interviewee is currently a member in good standing at the other sites.

Following the introductory questions, there are a series of technical questions. There are usually terminological questions that involve the identification of different lossy and lossless file types and interviewees are asked to indicate what types of lossy, lossless, and transcoded files are acceptable according to the site’s rules. Though the answers for such questions are easily obtainable online through the interview preparation site, they nonetheless require a considerable amount of technical expertise and familiarity with SITE F’s rules in order to understand their importance in the context of the interview.

Interviewees might be asked ‘If transcoding and no more than one lossless to lossy encoding is permitted which of these transcodes are/is generally acceptable?’. There are also questions in which the interviewee must identify, from a string of transcoding scenarios, which are acceptable on SITE F and which are not.⁴² An example

⁴¹ ‘Topic for #SITE F-interview2 Set by IRConan at Sat Sep 05 02:53:59 2009 <sup3’, *Pastebin*, 2011 <<http://pastebin.com/a6wbnQgJ>> [accessed 13 February 2012].

⁴² ‘How to Join SITE F’, *SB-Innovation*, 2008 <<http://www.sb-innovation.de/f59/how-join-SITE-F-7924/>> [accessed 13 February 2012].

of this question follows:

Look at the following transcodes and answer whether each one is allowed or disallowed:

- 1 . Retail CD -> ALAC -> MP3 V0 -> MP3 128kbps CBR -> MP3 256kbps CBR
- 2 . Retail CD -> MP3 128kbps CBR -> MP3 V0 -> FLAC
- 3 . Retail CD -> ALAC -> FLAC -> APE -> WMA Lossless -> WAV (PCM) -> MP3 V0 -> MP3 V2
- 4 . Retail CD -> MP3 320kbps CBR -> MP3 256kbps CBR -> MP3 192kbps CBR -> FLAC
- 5 . Retail CD -> FLAC -> ALAC -> MP3 320kbps CBR
- 6 . Retail CD -> MP3 320kbps CBR -> MP3 192kbps CBR -> FLAC
- 7 . Retail CD -> ALAC -> MP3 128kbps CBR -> MP3 256kbps CBR
- 8 . Retail CD -> ALAC -> FLAC -> MP3 V2
- 9 . Retail CD -> WAV (PCM) -> FLAC
- 10 . Retail CD -> ALAC -> FLAC -> MP3 320kbps CBR
11. Retail CD -> MP3 320kbps CBR -> MP3 V2.⁴³

One particularly challenging question that is sometimes asked involves the identification of a spectral analysis of a digital music file. A spectral analysis is a visual representation of the frequency range over time of a given audio source. This question poses some difficulty for interviewees and thus '[d]uring this section there is an exception to the "no other sources" rule and you may refer to (but only to) <http://blowfish.be/eac/Spectral/spectral.html> to help you answer the questions in this section'.⁴⁴ Interviewees may also be asked '[w]hat is port forwarding and why is it important?'.⁴⁵ As noted in the discussion about the BitTorrent protocol in Chapter Two, one of the most important technical elements that impacts a users ability to share content is whether or not other BitTorrent users can connect to one another, and this means that a user must be technically adept enough to allow incoming connections through their home networking router and modem, in addition to any firewall or antivirus software. This is known as 'port forwarding' and can be easily determined through a variety of online help guides aimed at familiarising users with the BitTorrent

⁴³ '05:44 Started Talking in SITE F-interview3 on Thursday 12/29/2011 05:44:55 PM', *Pastebin*, 2011 <<http://pastebin.com/Cb9wWcVG>> [accessed 13 February 2012]. The answers are: 1.No, 2.No, 3.No, 4.No, 5.Yes, 6.No, 7.No, 8.Yes, 9.Yes, 10.Yes, 11.No.

⁴⁴ *Ibid.*

⁴⁵ *Ibid.*

protocol and how to ensure that they are connectable. Though it is essential to the process of sharing, surprisingly it is also commonly neglected by BitTorrent users.

Technical proficiency, as I have noted, is highly valued at private sites, and especially at *SITE F*. But, the ‘character’ of the aspiring member is also important. The site wants to ensure that those who are granted access are not only capable of understanding the technical elements of filesharing, but also its customs, values and social elements. For example, an interviewee might be asked ‘[w]hy are you interested in becoming a *SITE F* member?’ and ‘[h]ow often do you plan on using the site?’.⁴⁶ They might also be asked to comment on the size of their music collection and their willingness to contribute new material to the site. In addition to these more personal questions, interviewees are tested on their understanding of the site’s rules. For example, in one interview questions similar to the following might be asked:

Can you post content that you have downloaded from *SITE F* to other places.?

Can you add two trackers to the same torrent to seed on two sites at once.?

Can you share your *SITE F* username and password with your friend so they can download music too.?

2) Can you donate money to *SITE F*, and get upload credit for doing so.?

Can you upload an album that's less than 192kbps CBR as long as it's the only version available?

Are you allowed to share your *SITE F* .torrent files anywhere else?⁴⁷

Each of these questions will reveal whether or not the interviewee had closely read the *SITE F* interview preparation site, and whether or not they had retained this information.

The *SITE F* interview highlights the site’s prioritisation of members’ technical knowledge and facility in addition to their commitment to sharing media and obeying the site’s regulations. The interview confirms that *SITE F* in particular, but much private BitTorrent filesharing in general, is a pursuit that is not immediately made accessible to casual filesharers. The interview places aspiring members in a position where they must first prove themselves before gaining access to the spoils found on the site. In order to provide this proof, an aspiring member engages in a sometimes lengthy and often

⁴⁶ ‘How to Join *SITE F*’.

⁴⁷ ‘05:44 Started Talking in *SITE F*-interview3 on Thursday 12/29/2011 05:44:55 PM’. The answers are: Yes, No, No, No, No, No

autodidactic relationship with the variety of online sources that provide knowledge about technical and cultural elements of BitTorrent filesharing. It is in this way that the interview, while on the one hand cast by the site's founder as an egalitarian practices is, on the other, a practices that reinforces exclusivity and enclosure. In so doing, I suggest, private BitTorrent sites are in tension with narratives about piracy that see it as a lawless free-for-all or an egalitarian and liberatory paradigm for online media distribution. Piracy cannot be seen as homogeneous precisely because what appears open and accessible to all in one instance (such as at public sites or more mainstream peer-to-peer software) can just as easily be enclosed in another. And crucially, such an enclosure mimics the sort of practices associated with neoliberalism despite the fact that an enclosed space for copyright-infringing sharing is not directed toward profit. There are, however, times during which private sites do open the gates to their walled gardens.

OPEN SIGNUP

Periodically, private sites will open up the registration process and forego invitations, applications, and interviews altogether. In these cases an aspiring member simply visits the site and fills in a registration form with a username, email address, password, and usually promises that they are older than thirteen years and will read the site's rules. Solving a 'captcha' completes the registration process, at which point the new member may login into the site.⁴⁸ As previously mentioned, established private sites will often have open signups around Christmas each year. In one week in mid December 2011 the BitTorrent-focussed blog *BTRealm*, for example, posted information that six private sites were holding open signups for a short period that month.⁴⁹ SITE B, a large general tracker, notes the following with regards to their annual '12 Days of Christmas Event':

When we think about Christmas we relate to many of the same ideas behind bitorrent and our community. They both represent a means of

⁴⁸ 'Captchas' are those security questions where one is requested to identify letters or numbers that appear obscured and mis-formed and type them into a field for verification. In most applications, the captcha is meant to ensure that it is a human being filling in the code, and not an automated form filler (which of course would result in a rush of 'dummy' accounts being created).

⁴⁹ admin, 'SITE D Open Invites', *BTRealm*, 2011 <<http://btrealm.net/tracker-invitations/SITE-D-open-invites.html>> [accessed 13 February 2012]; admin, '4 Popular Trackers Accepting Invite Applications – HDbits, PTN, ScienceHD and Torrent Damage', *BTRealm*, 2011 <<http://btrealm.net/tracker-invitations/4-popular-trackers-accepting-invite-applications-SITE-H-ptn-sciencehd-torrent-damage.html>> [accessed 13 February 2012]; admin, 'Fux0r Invite Application Reopens', *BTRealm*, 2011 <<http://btrealm.net/tracker-invitations/fux0r-invite-application-reopens.html>> [accessed 13 February 2012].

bringing people together, amazingly, on a global scale. But perhaps more importantly, the spirit of sharing and giving embody both ideas to their core.

One of the twelve scheduled events was a single day of open signups. Clearly, one would need to be a member in order to know that sign ups were open on that day, but news travels quickly around the peer-to-peer blogosphere, so anyone who frequents the filesharing blogs and forums I noted above would likely find out about the open signup period. Other burgeoning sites will open signups early in their existence in an attempt to bolster their site's membership, which, it is hope, will increase shared content and thus help to build the site's reputation. For instance, in February of 2011, with only 1900 users and 360 torrents shared, SITE M was only weeks into its existence when it opened signups and was featured, alongside several other younger sites, in a post on *Torrent Invites V3* alerting readers to open signups on several other sites.⁵⁰

Another way to find out about open signup periods is through the use of websites or desktop software that compile and present information about private sites that are currently open. Sites such as *OpenTrackers*, *BTRACS*, and software like *Trackerchecker* (which also employs Twitter to announce open trackers now that its website is no longer operational) each provide automated live updating of private sites that currently have a publicly accessible registration page.⁵¹ *OpenTrackers* provides the following description of its mandate:

Most private bittorrent communities have small time periods where they are open for signups as they require new members to keep the site going. Often users will find it difficult to check every single site manually and thus OpenTrackers was born. Simply look through the conveniently [sic] alphabetically sorted list to have a complete overview of which trackers are open or closed! The brown leaf icon takes you to a review of the site you are interested in. If the site is open a large green circle will be displayed next to it so hurry and go sign up! If there is a red circle remember to bookmark us by clicking on our banner and check back

⁵⁰ '7 General Private Trackers Open For Signup - February 2011', *Torrent Invites V3*, 2011 <<http://torrent-invites.com/open-trackers/95433-7-general-private-trackers-open-signup-february-2011-a.html>> [accessed 13 February 2012].

⁵¹ 'OpenTrackers - The Place to Look for Open Private Trackers!', *OpenTrackers* <<http://opentrackers.net/>> [accessed 13 February 2012]; 'Bittorrent TRackers Automatic Checking System - A.K.A BTRACS', *BTRACS* <<http://btracs.com/>> [accessed 13 February 2012]; 'Trackerchecker (trackerchecker) on Twitter', *Twitter* <<https://twitter.com/trackerchecker>> [accessed 13 February 2012].

tomorrow or the day after. Who knows ? It could be your lucky day!⁵²

Trackerchecker can be used either through its *Twitter* feed or via a small desktop application that can be installed on the user's computer. Much like *OpenTrackers*, the *Trackerchecker* software scans a preconfigured list of private trackers and determines whether or not registration is open. Both the website, when it was operational, and the software allow users to manually add sites to this list since private sites, like other websites, tend to appear and disappear fairly regularly. *BTRACS* works in a similar fashion, and provides a rationale for why private sites have open signups and how the sites might determine whether or not to open up for registration:

We will demonstrate by providing an example. A bittorrent tracker site has 54051 signed up users and is closed for signup, it's an 'invite only' site. The sites' operator checks all the existing users for being active and finds out that 5366 users are inactive, the sites' limit in our example is 50000 users.

So, let's do a bit of math: $54051 - 5366 = 48685$, that leaves 1315 users under the sites' limit. So, the sites' operator decides to open signup for a little while, only enough for 1315 new users to signup. You have to know this information in time if you want to signup for this site.

Here is where *BTRACS* can help you. The main page is being refreshed every 10 minutes automatically. It checks all bittorrent trackers in its database and provides you the relevant information - which of these bittorrent trackers' signups are open.⁵³

Though such websites do provide a reasonably accurate view of which sites are open there is the following caveat: 'even if a tracker has a signup page available, it may either be closed to new signups or new users will require to enter a valid invite code on the page. Due to the aforementioned quirk, false positives are quite common'.⁵⁴

CONCLUSION

Becoming a member of a private site is a complex and involved process that requires a significant investment of time, a considerable level of technical competency,

⁵² 'OpenTrackers - The Place to Look for Open Private Trackers!'.

⁵³ 'Bittorrent TRackers Automatic Checking System - A.K.A BTRACS'.

⁵⁴ sharky, 'The Essential Guide To Getting Into Private Trackers | THE Source for BitTorrent & P2P Tips, Tricks and Info', *FileShareFreak*, 2009 <<http://filesharefreak.org/2009/06/18/the-essential-guide-to-getting-into-private-trackers/>> [accessed 13 February 2012].

and enough 'web savvy' to know where and when to look for information regarding private sites. These requirements run contrary to perspectives that see filesharing as a 'free-for-all', easy-in/easy-out, or egalitarian endeavour. In fact, there is a considerable amount of necessary labour involved in demystifying BitTorrent technology and its attendant terminology, not to mention the significant social commitment to learning about the culture of private BitTorrent filesharing. I'll take up the notion of labour in more detail in Chapter Six where I take up the crucial differences between public and private forms of media piracy, how they differ in their valorisation of their users' labour, and how this valorisation relates to issues of audience commodification. Furthermore, in Chapter Seven I cast the process of becoming a member and maintaining membership in terms of filesharers' shared capacities to communicate about media and media piracy in terms of contemporary theories of the common, wherein the common, much like online media piracy, is seen as antagonistic to private accumulation through the capitalist valorisation of share knowledges, ideas, affects, and so forth. Becoming a member at a private site is, however, just a first step. Once 'inside' the private filesharing world, there are a host of other rules, regulations, and cultural conventions that the new member must learn to navigate if one is to be successful at maintaining their membership. The following chapter takes up these internal elements of private sites and offers more detail as to why they are so desirable, how they succeed at creating high quality and diverse catalogues of media, and the various ways in which members negotiate the variety of rules and regulations.

CHAPTER FIVE: PRIVATE BITTORRENT SITES, ENCLOSURE AND CIRCULATION

INTRODUCTION

The current chapter takes up those specific aspects of private sites with which one engages after becoming a member. Private sites are shown to be largely exclusive places for engaging in media piracy. They are a type of enclosed commons in which a relatively privileged and heavily surveilled membership engages in relations of mutual reciprocity and obligation that are legislated and enforced by the site. The preceding chapter describes the process of gaining membership to a members-only private BitTorrent site. This process is one in which aspiring private site members engage a great deal of knowledge seeking and labour in order learn about technical and social aspects of private filesharing. Far from being an easy and universally accessible phenomenon, private BitTorrent piracy is in fact exclusionary and restrictive. This reality reveals a tension between pirate practices and the dominant discourse about piracy, which, regardless of whether pro- or anti-piracy, tends to emphasise the openness and accessibility of piracy as a practice that anyone can (and does) engage in. However, as this chapter further demonstrates, the private site paradigm shows that not all piracy can be viewed as an egalitarian endeavour. Indeed, the technical knowledge required to become a member is considerable as is the time required to gain such knowledge. The process of becoming familiar with the customs and social aspects of private filesharing, such as the commitment to sharing and not just downloading media further suggests that piracy is a heterogeneous activity shot through with ambivalences and contradictions. It is not only in the quest for membership that the myriad differences and contradictions between public and private BitTorrent piracy are revealed. Once one becomes a member, these differences become even more apparent.

The chapter first addresses obligatory reciprocity by analysing the importance of the 'share ratio' of uploads to downloads in various ways. The ratio is perhaps the most distinctive feature of private sites, and it is rare to find a private site that does not employ some sort of ratio incentive. The ratio requires that members share back a certain amount of what they download from the site, and thus it encourages members to either continually share material that already exists on a site or to contribute new material. Should they opt not to maintain their ratio requirements, members are usually restricted from participating in the site. Share ratio enforcement, it will be shown, has

the ultimate effect of broadening a site's catalogue and keeping it relatively consistent.

Second, the chapter takes up status and hierarchy, which are also important features of members-only filesharing that are bound up primarily with the ratio. Unlike their public counterparts, members-only sites place a great deal of emphasis on members' commitment to the ideal of sharing media. Members are thus rewarded in a variety of ways for their sharing habits: they can progress through hierarchies of 'user classes' in exchange for maintaining certain ratio requirements and uploading a specified amount of data. By rising through these hierarchies members are rewarded with access to enhanced site functionality that remains inaccessible to members of lower user classes. This practice again highlights exclusion as a major component of the politics and culture of private BitTorrent piracy. Exclusion is further revealed in the relationship between site staff, owners, and administrators, who wield ultimate power over a site's operations and ultimately carry in their hands the fate of any members who are found to be breaking any of a site's strict rules, especially those that govern behaviour in forums.

Third, I will discuss private sites' reliance on user donations in order to cover their operational costs. Donations are a matter of some debate among private site members who, though generally sympathetic to the need for engaging with the 'real world' concerns of private sites, will often question the transparency of private sites' accounting practices. Here, one of the biggest issues is that site owners are typically reluctant to publish detailed information about the costs associated with operating a private site. Members who do donate must therefore exhibit a certain degree of trust that the site's ownership is in fact honest about the need for donations, and thus it is not uncommon to find heated discussions in private site forums about just how much one ought to trust site operators. Donation paradigms appear as a necessary step in rejecting the commercialism of more accessible forms of piracy. They reject the commodification of audiences through advertising and subscription programmes, which has become as essential to public BitTorrent piracy as it has to legal online media distribution. The complexities of this refusal of audience commodification will be expanded further in Chapter Six.

The chapter concludes with a specific example of how one engages with searching and finding at one of the more successful private sites, SITE F. The example demonstrates the potential of private sites to minimise technical corruption and make searching for media highly efficient. In many ways private sites exist in order to remedy

the problems with quality and corruption that, as I noted earlier, are characteristic of publicly accessible BitTorrent sites. A private site's privileging of quality and diversity of content in combination with a priority on efficiency in its search capabilities suggests that simple access to cultural production is not enough to constitute a radical break with capitalist media circulation. That is a perspective reserved for public BitTorrent piracy. Instead, private sites appear to push further by implementing processes to ensure not only that there is a high *quantity* of accessible media, but also that this media is of the highest possible *quality*. Importantly, these processes rely almost entirely on the membership's autonomous capacities to intervene in the curation of an ever expanding media catalogue through the creation and sharing of torrent files, the editing and compiling of data and information about these torrents, and the co-production of a highly sophisticated relational database of searchable information.

These four principal elements of private filesharing—the ratio, the hierarchies, the funding, and the search functionality—reveal a complex and multifaceted phenomenon that is rife with contradictions and ambivalences. Private filesharing is anything but 'free' and 'open' and as such complicates the more celebratory accounts of piracy's potential to signal the emergence of an egalitarian mediascape and a politics of resistance. At the same time, it also complicates those accounts of piracy that see it as a free-for all directed only at stealing intellectual property from creators. Such views are shown to be much too simplistic when faced with the actual practices of pirates on private sites.

RATIO

The ratio requirement is one of the distinguishing characteristics of members-only private sites. In fact, aside from the restrictions on access that are expressed in the invitation, interview, and applications paradigms, it is the single greatest structural and organisational factor that differentiates private sites from the much more egalitarian logic of public BitTorrent filesharing. Working in consort with the near universal prohibition on selling invites and the importance placed on vetting potential members for their technical knowledge and commitment to site ideals, the ratio is also a significant material expression of the development of a kind of ethics that foregrounds obligatory sharing and reciprocity—something that does not figure as prominently in public filesharing. Indeed, there would appear to be no reason to participate in a private site if one had a particular objection to sharing content since as long as one can tolerate

slower downloading speeds and inefficiency in search functionality public BitTorrent sites have a great deal of media on offer. Private sites tend to place much more emphasis on sharing and contribution than they do on simply downloading. If a user is not interested in contributing content or bandwidth resources to a filesharing community, there are plenty of other options for finding media content online these include public sites or other peer-to-peer software, movie and music streaming sites, and, obviously, commercial alternatives.

The BitTorrent protocol makes it possible to track how much data a user uploads—and thus shares—and how much he or she downloads. This technical capacity is leveraged at private sites in order to measure and track how much members download and share. At a private site each member is assigned a unique private ‘key’ that becomes part of each torrent he or she uploads to or downloads from the site. This key makes it possible for the site to identify which users are involved in a file transfer and thus facilitates the tracking of the data a member uploads and downloads from other members. The share ratio is thus based on the relationship between data uploaded and data downloaded. Private sites are designed in such a way that members are required to maintain clearly defined ratios and the site software is configured to automatically notify those who are not abiding by the ratio rules and to disable downloading privileges should a member not raise his or her ratio. Similarly, the site software is configured to automatically ‘promote’ members through a series of hierarchical ‘user classes’, progression through which often rewards members with enhanced site functionality. I take up user classes in more detail below.

Requiring that members upload a certain percentage of what they download is based on the idea that such an incentive will help private sites to overcome the primary limitations of public sites, which is that there are often not enough seeders and as a result transfer speeds can be frustratingly slow.¹ An over-abundance of leechers without a significant amount of seeders, as is the case in public BitTorrent filesharing, means that certain content will gradually become less available as seeds leave torrent swarms and the torrents themselves become inactive. There is also corresponding drop in the speed at which content can be downloaded, because the BitTorrent protocol relies on the shared bandwidth of the entire swarm in order to be efficient.² Making membership contingent on sharing is an attempt to alleviate these issues by incentivising members to

¹ Zhengye Liu and others, ‘Understanding and Improving Incentives in Private P2P Communities’, in *2010 IEEE 30th International Conference on Distributed Computing Systems* (Washington, DC, 2010), 610–621.

seed their content for longer in an effort to maintain their ratio and either progress through various levels of user 'status', which I will address below, or to simply keep their accounts active in order to maintain downloading privileges. As a result, on private sites transfer speeds are generally faster than on public sites and, typically, the sites are able to maintain a more or less consistent archive of media content, as is evident in the large number of active torrents shared at some of the larger and more established private sites like SITE F and SITE E.

The resulting speed, consistency, depth, and diversity of content that comes to characterise private sites prompted one site member to summarise it thus: 'Blessed are the seeders, for they shall inherit the ratio'. This is a telling inversion of Matthew's rendering of the Beatitudes. In the original, the meek and the unfortunate are said to be blessed—their meekness itself a noble feature that will prevent their mutual destruction from conflicts resulting a lust for power. The inversion of this sentiment reveals a great deal about those values that are prioritised at private sites: seeders are 'strong' because, as will be shown, they are able to give to the community their bandwidth and time, and they resources to find new material to upload to the site. The 'meek', those who cannot seed due to technical problems or lack of resources, live in constant risk of having their accounts disabled. On private sites the strong inherit the spoils, while the meek are only ever able to scrape by as they balance ratio requirements with their own desire for more media.

Ratio Requirements

Typically, the share ratio requires that members share only a percentage of what they have downloaded through their association with the site, meaning that it is rare to find a site that requires a 1:1 correspondence of uploads to downloads. While some sites have a static ratio requirement regardless of the amount a user downloads, in most cases the required ratio increases along with the total amount downloaded: the more a member downloads, the greater the percentage of the data downloaded he or she is expected to upload.³ The difference between data uploaded and data downloaded is known in private BitTorrent circles as the 'buffer': the larger one's positive buffer (a large amount uploaded versus a small amount downloaded) the freer a member is to

² Adele L. Jia and others, 'Fast Download but Eternal Seeding: The Reward and Punishment of Sharing Ratio Enforcement', in *2011 IEEE International Conference on Peer-to-Peer Computing (P2P)* (Tokyo, 2011), 280–289.

³ For example, two sites with static ratio requirements are SITE B, where members are required to upload 60% of their downloads (0.6) and SITE D, where 40% is required (0.4).

download media without having to worry if their downloads will negatively affect his/her ratio. It is important to note here that the ratio is a purely quantitative measure. Media content is abstracted into data and it does not matter what data is uploaded in return. This means that though a member at a general tracker may have downloaded, say, the latest instalment of the *Batman* movie franchise along with numerous music or software torrents, any data they upload from any of the variety of other torrents they might seed will count toward their ratio requirement. This is a scenario that is referred to by Liu *et al* as an 'asynchronous incentive' since members ratio is collected from the total amount of data uploaded and downloaded across various different torrent swarms.⁴ Tables 5-1 – 5-3 indicate the ratio requirements for three major music-focussed private sites, the now-defunct SITE G, SITE E, and SITE F.

Table 5-1. SITE G, Ratio Requirements.

Download Amount	Minimum Required Ratio	Initial Grace Period
Less than 5 GB	None	None
5 GB – 25 GB	0.25	14 days
25 GB - 50 GB	0.3	None
50 GB – 75 GB	0.35	None
75 GB – 100 GB	0.4	None
100 GB – 125 GB	0.45	None
125 GB or more	0.5	None

Table 5-2. SITE E, Ratio Requirements.

Download Amount	Minimum Required Ratio
Less than 5 GB	None
5 GB - 15 GB	0.15
15 GB – 30 GB	0.25
30 GB – 45 GB	0.3
45 GB – 60 GB	0.35
60 GB – 100 GB	0.4
100 GB – 125 GB	0.45
125 GB or more	0.5

⁴ Liu and others, 'Understanding and Improving Incentives in Private P2P Communities'. Whereas a public shared torrent carries no such incentive, since any ratio calculation will be for only one particular torrent swarm.

Table 5-3. SITE F, Ratio Requirements.

Download Amount	Required Ratio 0% Seeded	Required Ratio 100% Seeded
Less than 5 GB	0.00	0.00
5 GB – 10 GB	0.15	0.00
10 GB – 20 GB	0.20	0.00
20 GB – 30 GB	0.30	0.05
30 GB – 40 GB	0.40	0.10
40 GB – 50 GB	0.50	0.20
50 GB – 60 GB	0.60	0.30
60 GB – 80 GB	0.60	0.40
80 GB – 100 GB	0.60	0.50
100 GB or more	0.60	0.60

The first two examples are fairly straightforward: as a member downloads more, he or she is expected to also share more. At SITE G, once a member had downloaded 5GB, they were given two weeks to ensure that their ratio met the requirements of the new threshold. This was because a member may possibly have crossed a ratio-requirement threshold during a torrent transfer. For all other levels, no grace period was given as it was expected that these members would be more able to balance for themselves their upload and download amounts and thus not find themselves in a situation where they were under their ratio requirement.

The SITE F example is slightly different because of the two ratio requirements. For most private sites, the requirement that users share a percentage of what they download is considered enough incentive that members will seed torrents longer than they might on a public site. And for the most part, this seems to be the case, since universally private sites have an overabundance of seeders.⁵ Most sites' overall seeder-to-leecher ratio is similar to those of SITE E or SITE F noted above, though the actual data ranges may differ depending on the theme or focus of the site.⁶ SITE F introduces an additional level of incentive in the form of two required ratios. As the above chart indicates, the second required ratio is, in most cases, lower than the first. SITE F thus works with a ratio range that depends as much on the amount of data shared as it does on whether or not members continue to seed torrents they have downloaded. The SITE

⁵ M. Meulpolder and others, 'Public and Private BitTorrent Communities: a Measurement Study', in *9th International Conference on Peer-to-peer Systems, IPTPS'10* (Berkeley, CA: USENIX Association, 2010), 1–13.

⁶ At a video-themed private site, for example, the data ranges would be higher because video files themselves are much larger than music files.

F 'Ratio Rules' page explains:

Your required ratio is unique, and is calculated from the amount you've downloaded and the percentage of your snatched torrents which you are still seeding. [...] downloading makes the required ratio go up (bad) and seeding your snatches forever makes your required ratio go down (good). [...] You want a high ratio, and a low required ratio. The exact formula for calculating the required ratio [...] is done in three steps. The first step is by [sic] determining how high and how low your required ratio can be. [...] Therefore, your required ratio will always lie between the 0% seeded and 100% seeded requirements, depending on the percentage of torrents you are seeding. In the formula, 'snatched' is the number of non-deleted unique snatches (complete downloads) you have made (so if you snatch a torrent twice, it only counts once, and if it is then deleted, it's not counted at all). 'seeding' is the average number of torrents you've seeded over at least 72 hours in the past week. If you've seeded less than 72 hours in the past week, the 'seeding' value will go down (which is bad). Thus, if you have downloaded less than 20GB, and you are seeding 100% of your snatches, you will have no required ratio. If you have downloaded less than 5GB, then no matter what percentage of snatches you are seeding, you will again have no required ratio. If you stop seeding for an entire week, your required ratio will be the 'required ratio (0% seeded)' for your download band. Your required ratio will go down once you start seeding again. Take note how, as your download increases, the 0% seeded and 100% seeded required ratios begin to taper together. They meet at 100 GB of download, meaning that after you've downloaded 100GB, your ratio requirement will be 0.60, no matter what percentage of your snatches you're seeding.

Though this logic may at first appear somewhat over complicated it has proven to be effective for providing incentive for members to seed torrents as is evident in the nearly eighty-to-one ratio of seeders to leechers on SITE F and the considerable amount of media available on the site.

At most private sites, should a user's ratio fall below the prescribed percentage, he or she will be given a predetermined amount of time to bring the ratio back within the site's requirements. This allotment is known as 'ratio watch' or similar, usually lasts

approximately two weeks. Members are alerted that they are on ratio watch by a warning message that is generated automatically by the site's tracking software. Non-compliance after multiple warnings usually results in download privileges being suspended (i.e. a member cannot download any more new content until he/she has met the ratio requirement). Multiple transgressions may result in the ultimate penalty of account deletion. At SITE G members on ratio watch were given a two-week grace period to bring their ratio in line with the site's requirements. If they were not able to do so accounts would be disabled. SITE F employs a similar grace period and a similar punishment for not repairing the ratio.⁷ SITE E also has a grace period but rather than disable accounts, only prevents members from downloading until their ratio is within the site's guidelines. Though SITE D is one of the few private sites that has a universal ratio requirement (0.4), there is an additional caveat to their ratio requirement: 'there is also a per torrent minimum which is also 0.4. If you are not able to seed the torrent to 0.4 then you will need to leave it seeding for 60 hours within a 72 period (Ideally 60 hours straight) or you could receive a warning for Hit & Run'. This means that each torrent must be seeded to the minimum ratio requirement, in addition to the user meeting the minimum requirement on the total of all the data they have downloaded. If not, then they must have a cumulative total of 60 hours of seeding time in order to avoid the warning. This rule is implemented in order to combat 'hit and run' downloading, which is a common occurrence on public sites; it involves joining the torrent swarm only long enough to download the content. Such behaviour is universally frowned upon, even in public BitTorrent filesharing, because it does little to ensure the lasting availability of media content; it is a particularly egregious offense in private sharing, hence the implementation of regulations such as the share ratio.

The ratio rules and their corresponding punishments highlight the importance that private sites place on obligation and reciprocity. A low share ratio is a good indicator that, technical considerations notwithstanding, a member is failing to live up to the expectation that he/she will share media with other members. Since most of a site's operations regarding ratio requirements and ratio watch are automated, members who consistently leech from others without contributing to the site via seeding are detectable and are thus regularly culled after appropriate time has passed. However, the built in leeway created by the ratio watch period demonstrates an understanding that

⁷ 'SITE F: A Beginner's Guide Prepare for the Interview', *SITE F: A Beginner's Guide*, <<http://www.SITE Finterviewprep.com/preparefortheinterview.html>> [accessed 12 February 2012].

there are various reasons why a member may not be able to meet the ratio requirement. Such reasons might include a poorly configured home network that prevents other members from connecting to and downloading from the member with the poor ratio, in which case the numerous technical documents that are provided in the FAQ sections of private sites and in public forum discussions provide the necessary reference for correcting technical problems.⁸ Another increasingly common problem for BitTorrent filesharing has been the imposition of network-layer ‘throttling’, which I discussed earlier, whereby BitTorrent traffic is deliberately slowed down by an Internet Service Provider. Again, there are numerous resources available online to help with either compensating for or defeating throttling.⁹ Other scenarios that prevent a member from uploading might include an inability to leave one’s computer on for an extended period of time, as might be the case on a shared computer or in an energy conscious household, or even a lack of interest on the part of the wider membership in the torrents that one does have seeding. As with many aspects of private BitTorrent filesharing, the ‘grace period’ for meeting ratio requirements is another indicator of how time, along with data, becomes one of the key indices for measuring, accounting, and encouraging members to continuously contribute to media circulation. I will now look at the various strategies that filesharers have developed for maintaining and improving their ratios.

Ratio Strategies

There are myriad sources of advice available online for engaging with the ratio requirements. In fact, along with the discussions about how one can become a member of a private site that I detailed in Chapter Four, my survey of filesharing blogs and news sites showed that ratio strategies are one of the most popular private site-related topics online. The popularity of discussions about the ratio is largely the product of the over abundance of seeders on private sites. Continuous seeding is the most common means

⁸ One of the most common problems is that a member is behind an institutional or personal firewall and that the incoming ports on their router or modem are not configured to allow for incoming connections. There are numerous resources online that one can consult. One of the more popular is *PortForward*, which lists routers and modems by manufacturer and offers instructions for proper set up. Port forwarding is not unique to BitTorrent filesharing, many games and other Internet applications such as Instant Messaging and IRC rely on open ports for incoming connections. See ‘Port Forwarding Guides Listed by Manufacturer and Model’, *Port Forward*, <<http://portforward.com/>> [accessed 12 February 2012].

⁹ On throttling see Ernesto, ‘BitTorrent Throttling Internet Providers Exposed’, *TorrentFreak*, 2011, <<https://torrentfreak.com/bittorrent-throttling-internet-providers-exposed-111020/>> [accessed 12 February 2012]. Strategies to compensate for or defeat throttling are popular discussion forum topics, see ‘How to Defeat the Throttle - Bell Canada’, *DSLReports Forums*, 2008, <<https://secure.dslreports.com/forum/r20755668-How-to-defeat-the-throttle>> [accessed 12 February 2012].

that members' have at their disposal to ensure a baseline level of contribution and a reasonable chance at maintaining their ratio requirement. So long as a torrent is seeding there is always the possibility that another member will leech from it. Indeed, this is the most commonly offered advice in ratio discussions: 'seed 24/7. Is your computer on? Then turn on BitTorrent. Is your computer off? Turn it on'.¹⁰ In response to questions about the desirability of SITE G, one contributor on the discussion forum *FilesharingTalk* highlighted the need for patience when negotiating ratio requirements:

[...] patience is the key. not speed! You must expect to leave stuff you take seeding and just forget it [...] takes absolutely no effort to get a good ratio there, actually, because you just don't have to think about it at all. This is also the reason that they have a 100k torrents seeded at any given time. f***ing brilliant. (censored by the poster in original).¹¹

Though continuous seeding has the possibility of benefiting individual members, it is far more beneficial for the whole of a site's membership since it means that the catalogue of media is consistently diverse and very large. Continuous seeding can also be an a hindrance to individual members looking to increasing their ratio. This is because, according to a study by Jia *et al*, torrent transfer activity is at its highest in the earliest days of a torrent's life. So, as members seed longer, there are diminishing returns *vis-à-vis* the ratio since most of those members who wanted a particular torrent will have downloaded it fairly early in its life.¹² Another potential negative effect of continuous seeding and an overabundance of seeders is that it becomes increasingly difficult for members to find new material to upload, a problem exacerbated by strict prohibitions on uploading duplicate content. Thus, continuous seeding is an ambivalent means for negotiating ratio requirements. Though it is a baseline means for at least the possibility that one will gain upload by seeding, there is no guarantee.

Beyond continuous seeding, there are several other strategies available to members to help with their ratio by uploading new content, which, if downloaded by other members, will have only a positive effect on a member's ratio since one need not first download data in order to seed it. An article that provides several tips for maintaining a good ratio on SITE F, but which can also be applied to most other private

¹⁰ BitKing, 'Tips For Improving Your Ratio on SITE F', *Squidoo*, <[http://www.squidoo.com/tips-for-improving-your-ratio-on-SITE F](http://www.squidoo.com/tips-for-improving-your-ratio-on-SITE-F)> [accessed 12 February 2012].

¹¹ 'Who Rules the SITE G 'Empire'?', *Filesharing Talk*, February 12, 2007, <[http://filesharingtalk.com/threads/154212-Who-rules-the-SITE G-quot-empire-quot/](http://filesharingtalk.com/threads/154212-Who-rules-the-SITE-G-quot-empire-quot/)> [accessed 12 February 2012].

¹² Jia and others, 'Fast Download but Eternal Seeding'.

sites, offers the following advice:

Look through every CD you've ever owned in your life. Search around the site to see if it's on [the site]. If it's not, upload it! Even if you think that no one will be interested, do it anyway. Chances are you'll get a snatch or two. You may be very surprised. This site has users from dozens of countries and all age groups.¹³

This strategy makes a key assumption about the relationship between demographics of private sites and music choice by suggesting that though a recording may not seem particularly interesting to an uploader, chances are there is someone within the membership to whom it will be—a 'one person's trash is another's treasure' logic that bears a strong relationship to that of used record and book shops. In this case, however, it is implied that this logic can be expanded to account for global regional variances in taste, and importantly, accessibility.¹⁴ Furthermore, this perspective seems central to filesharing generally, and to private filesharing more specifically: one really has no idea whether what one shares will be of interest to anyone, but regardless, on a private site one is expected to do it anyway since both public and private sites rely on members who seed media on the chance that at some point, someone will be interested.

The initial point of this tip—finding and uploading content from CDs—is worth further consideration. Certainly in the early days of online filesharing most content would have emanated originally from physical media—especially CDs—which, as a medium for storing digital information, were well suited for encoding as a digital file. However, filesharing has proliferated, and increases in storage space, bandwidth, and server capacities have made it feasible for artists to offer music digitally through their own websites or through commercial venues like iTunes or Amazon among others. In

¹³ BitKing, 'Tips For Improving Your Ratio on SITE F'.

¹⁴ On used record and book shops see Will Straw, 'Exhausted Commodities: The Material Culture of Music', *Canadian Journal of Communication* 25, no. 1 (2000), <<http://www.cjc-online.ca/viewarticle.php?id=571&layout=html>> [accessed 12 February 2012]. Not all recordings available in one geographic region are available in another; this was certainly the case in the days of physical LP and CD releases, but is also the case with commercially available digital downloads, where certain material on iTunes and streaming services such as Pandora, is limited to certain regions for a variety of reasons, including copyright restrictions and limitations in place due to national performing rights and royalty associations. See Nate Anderson, 'iTunes Still Not Available in Some EU Countries. Here's Why', *Ars Technica*, 2010, <<http://arstechnica.com/tech-policy/news/2009/05/itunes-still-not-available-in-some-eu-countries-heres-why.ars>> [accessed 12 February 2012]; 'Buying Songs from Other Countries...: Apple Support Communities', *Apple Support Communities*, 2006, <<https://discussions.apple.com/thread/767699?start=0&tstart=0>> [accessed 12 February 2012]; Steven Hodson, 'Hey Canada, Don't Blame Pandora Says Company CEO', *The Inquisitr*, March 1, 2011, <<http://www.inquisitr.com/99726/hey-canada-dont-blame-pandora-says-company-ceo/>> [accessed 12 February 2012].

fact, recently the sale of digital downloads has surpassed the sale of physical CDs in some markets, a trend that is likely to continue.¹⁵ Given the prevalence of digital media and the demographics of private filesharing, which are heavily skewed in favour of the ‘millennial’ generation, the possession of CDs might in fact not be as prevalent as it was in filesharing even a decade ago. Nonetheless, not all of the world’s CDs have been digitised, and nor are they all available via commercial digital download venues, commercial or otherwise. Paralleling the move from analog to digital—from vinyl to compact disc—out of print and unpopular or niche titles often do not survive shifts in dominant formats, and thus CDs remain, for the foreseeable future, a valuable resource for uploading new material to a private site.

However, *finding CDs themselves* that have not already made their way online may prove more of a challenge. Since most contemporary titles will already likely be available on both public and private sites, in addition to other peer-to-peer networks and commercial services, and since older titles may become digitised at some point, the scope of possible new material to upload will continually narrow as it makes its way into the digital realm. These factors leads to two other additional suggestions about how to procure CD content. First, ‘Just because you don’t own any albums’, the article notes, ‘doesn’t mean you can’t get some to upload. Have a friend with an extensive collection? A *parent*? an *uncle*? a sibling?’.¹⁶ Here both the age and gender demographics of filesharing generally and private filesharing specifically are clearly reinforced. The young and largely male filesharing demographic is instructed to seek out older and presumably male relations, who are seen as important and potentially untapped resource for archaic physical media.

The above article also notes that ‘[a]lmost all libraries have music that you can borrow (rip and upload) for free. Classical music, world music, oldies, etc. It might not be your favourite but odds are someone on here will download it. And hey, *it was free anyway*’.¹⁷ This suggestion bears some more consideration. Utilising a local public library is commonly offered advice to those who seek counsel on how best to improve

¹⁵ Tim Arango, ‘Digital Sales Surpass CDs at Atlantic’, *The New York Times*, 26 November 2008, section Business / Media & Advertising, <<https://www.nytimes.com/2008/11/26/business/media/26music.html>> [accessed 12 February 2012]; Jared Moya, ‘STUDY: US Digital Music Sales to Surpass CDs in 2012’, *ZeroPaid*, 2011, <<http://www.zeropaid.com/news/92983/study-us-digital-music-sales-to-surpass-cds-in-2012/>> [accessed 12 February 2012]; Nancy Messieh, ‘For the First Time in the Music Industry, Digital Sales Surpass Physical Sales’, *The Next Web*, 2012, <<http://thenextweb.com/media/2012/01/05/for-the-first-time-in-the-music-industry-digital-sales-surpass-physical-sales/>> [accessed 12 February 2012].

¹⁶ BitKing, ‘Tips For Improving Your Ratio on SITE F’. (emphasis added).

¹⁷ *Ibid.* (emphasis added).

their share ratio. Presumably having exhausted their own private CD collections, and those of their male relations, libraries offer a potential treasure trove of rare and out-of-print material that may not yet be available in digitised form. Though there is no way of knowing for sure, this creative approach to finding new content in aid of one's ratio also may also help to explain in part why private sites tend to have a much greater catalogue of non-mainstream musical genres such as jazz and 'classical'. This is because public libraries often have much better selections of these genres than typical mainstream music retailers. Here there is yet another interesting crossover between established 'real world' institutions and systems of sharing that are at base much like the private sites considered here: non-profit and donation driven. Public libraries rely on public funds—provided for through the collection of taxes—in order to operate a service through which anyone who satisfies membership criteria (usually in the form of a local address needed in order to secure a library card) can have largely unfettered access to and use of cultural products for which they pay only indirectly.¹⁸

Other strategies revolve mostly around taking advantage of those opportunities afforded by a private site's rules and regulations regarding the uploading of different file formats. Though at most music-themed sites it is unacceptable to upload duplicate albums *in the same file format*, these sites do allow for and encourage sharing other file formats. The SITE E rules provide a fairly standard approach to how private sites regulate digital audio and duplicate content:

The following encodes are always allowed:

MP3 V0

MP3 V2

MP3 320 kbps CBR

FLAC with Log/Cue

These are always allowed *as long as* the same doesn't exist already.
(emphasis in original)

This means that in general, a single album can appear on the site in at least four different formats, three of which are 'lossy' (the MP3s) and one of which is 'lossless'

¹⁸ I will discuss the notion of public goods in more detail in the Chapter Seven, but a similar indirect form of payment is precisely that which allows Internet users a similar largely unfettered access to cultural production: we might draw an analogy between the municipal taxes that are often the source of public libraries' funding and the cost of a broadband Internet connection since both are crucial to creating the conditions whereby users can have unfettered access to collections of music and books. Of course, the indirect funding of libraries benefits not only the individual who pays the tax, unlike a broadband connection, which is, barring an unsecured wireless connection, largely a private good.

(the FLAC). There are more precise rules regarding the file size and bitrate of lossy files such as MP3s. For example, at SITE F a 192kbps MP3 *can* be uploaded to the site, however it can also be ‘trumped’ by the upload of a variable bitrate ‘V2’ MP3 file because they have similar file sizes and the V2 would be of a slightly better audio quality. However, certain MP3 bitrates are allowed to coexist because of significant differences in filesize, a compromise that private sites are willing to make as a means of catering to members who have differing storage capacities, bandwidth means, and sound quality needs. For example, ‘V0’ variable bitrate MP3s can coexist with 192kbps or V2 MP3 because the former is larger in file size and is of a higher fidelity. For similar reasons, a 320kbps MP3 (the technical maximum bitrate possible for the filetype) can coexist with all other MP3s. And with the exception of transcoding a V0 variable bitrate MP3 to a V2 bitrate MP3, which results in little loss in quality, the reader will recall from the discussion about the SITE F interview that in almost all cases lossless-to-lossless transcoding is strictly prohibited on most private sites. All lossy formats can coexist with lossless formats, of which FLAC is the most commonly accepted at most private sites.

There are special rules that govern FLAC uploading as well, and most of these revolve around the verifiability of the lossless audio encoding process as an ‘exact audio copy’ of the original digital (or analog) audio. This verification is normally achieved by providing .log and .cue files generated by Exact Audio Copy, the audio encoding software preferred by most private sites.¹⁹ A .log file contains information about the audio encoding process of the specific encoding session that generated the media content shared via the torrent; the .cue file is more or less a ‘table of contents’ that contains information about time, duration, and running order of the audio files. Together, the files provide comprehensive information that allows anyone with access to determine the fidelity of the encoding. Thus, on SITE E, while FLAC files of any sort can be uploaded, those that are accompanied by .log and .cue files will beat those that are not.

This brief general summary of rules regarding duplicates and audio formats is meant to demonstrate that, if members are reasonably competent with audio encoding

¹⁹ ‘Exact Audio Copy is a so called audio grabber for audio CDs using standard CD and DVD-ROM drives. [...] It is free (for non-commercial purposes) [...] It works with a technology, which reads audio CDs almost perfectly. If there are any errors that can’t be corrected, it will tell you on which time position the (possible) distortion occurred, so you could easily control it with e.g. the media player’ see ‘Exact Audio Copy’, *Exact Audio Copy*, <<http://www.exactaudiocopy.de/>> [accessed 12 February 2012].

software and they spend some time searching sites' catalogues, opportunities exist for seeding torrents of various formats since it is very possible that not every torrent shared on a site will be available in all of them. In this case, 'If you have FLAC files they can be reencoded and not be considered transcoded. Which [sic] means you can upload those new files here. Turn your FLAC into a V0, a V2, a 320mp3, and an Ogg [an open source lossless format] encode and upload all four of them [...]'.²⁰ By doing so, the sheer quantity of data represented by a full range of audio formats generated from a single source means that a member would stand a much greater chance of someone downloading one or another of his/her contributions.

Finally, it is also common for members to download content from other public and private sites that has yet to appear on the site(s) to which the member belongs. This is one of the important ways in which media content proliferates around the Internet and 'escapes' from enclosure by private sites: a mass of filesharers downloading from one site and sharing on another form a matrix of nodes through which media circulates online. Indeed, private sites are often the source of many of the torrents that appear only later on public sites. SITE D actually encourages new members to engage in the practice, which is referred to there as 'outside seeding', as a means for improving their ratio. First members are instructed to find a torrent that is available on SITE D and then search for that same torrent on another site (public or private, it doesn't matter). If successful, the member can download that torrent and once their download is complete seed it at SITE D by linking the private torrent to the data downloaded from the public torrent. In this way the member avoids going into a ratio deficit on SITE D and instead gains upload credit. Or, as it would be put in the torrent world, their upload would be 'all ratio'. But, sharing media from public sites on private sites does carry a certain amount of risk. Unless they first analyse the content obtained through a public site using spectral analysis software (like the kind used to produce the image of a transcode in the SITE F interview above) to ensure that it meets the quality, format, and transcode restrictions on a private site, members can never be entirely sure if the content will potentially break a site's rules.

It is largely the role of a private site's membership to police infringements to the format and transcoding rules sketched out above. Should a member upload a lossless format of a higher bitrate that trumps a pre-existing torrent, then that member is directed to note this in the appropriate field in the torrent upload page. Similarly, should

²⁰ BitKing, 'Tips For Improving Your Ratio on SITE F'.

members discover the existence of transcodes, duplicates, or corrupt files, it is their responsibility to report such infringements. When combined with the myriad boundaries and restrictions in effect in all aspects of private torrent sharing, this self-policing is yet another way that sites attempt to ensure that the material shared on a site is of the highest possible quality; and to a large degree they are successful.

Though discussions about the ratio make for lively debates regarding best practices, private site members largely embrace the ratio requirements. It is not uncommon on private sites to find membership surveys on a variety of topics—from favourite albums, site design, preferred torrent clients, and so forth—and site administrators often conduct polls among the membership to assess various aspects of the site's rules and regulations. In one poll conducted at SITE G in November 2006, members were asked: 'How do you feel about the ratio requirements we impose?'. Of the 31,277 respondents, 66% felt that the requirements were 'fair', 26% believed that they were 'too strict', and 8% weighed in with the third option, which was that the requirements were 'too lenient'. In a March 2007 poll at the same site, 69% of 37,650 respondents indicated that they had 'created a .torrent file', meaning these members have most likely actively uploaded new content to the site rather than simply continuing to share existing content. These statistics are highly suggestive that the extrinsic motivation of ratio requirements has increased members' intrinsic motivations to share.²¹

These statistics are also important because they reveal that such motivations are crucial for the experimental practice of creating autonomous and alternative spaces for the circulation of cultural production. Indeed, as I will discuss in Chapter Seven, one of the crucial observations made by theorists of the common is that the success of the common depends a great deal on the formation of subjectivities amenable to the idea of creating alternative ways of being. For media distribution through private sites, it is not enough just to have a membership that is resigned to following rules in order to access media. The membership itself must, and in many cases does, take on an ethics that sees adherence to the ratio requirements not as a form of control but rather as a commitment to the ideals of reciprocity and mutual obligation.

The incentive to share created by ratio requirements appears to encourage a sharing logic that stems as much from a sense of contribution to the community and the

²¹ Matei Ripeanu *et al.*, 'Gifting Technologies: A BitTorrent Case Study', *First Monday* 11, no. 11 (2006), <http://firstmonday.org/issues/issue11_11/ripeanu/index.html> [accessed 12 February 2012].

common catalogue of music as it does from simply a desire to satisfy the rules of the site. As one member at SITE E notes:

Keep in mind that we are a very strong community. Just because the minimum requirement is one thing, doesn't mean most of us don't expect much more of ourselves and each other. But I think the ratio requirements are fine. Depending on what type of music you like, as well as your internet connection, it **can** be hard to have a 1:1 ratio. I think the point of a lower ratio is to not scare people out of downloading what they want...which is still one of the chief purposes of torrent sites. :]

Here, the member demonstrates a keen awareness that, despite the emphasis on sharing, the primary reason for the existence of torrent sites (public and private alike) is to facilitate the downloading of media. Nonetheless, this member also foregrounds the important expectations that members of SITE E come to have of each other. A member of SITE F echoes these sentiments, and further emphasises the benefits of sharing both for members and the site: 'Contribution doesn't necessarily mean uploading of torrents, if you have a bit of spare space and bandwidth download some of the latest torrents, almost all of them will get you some ratio and you're helping the site grow, that's winning all the way around'. 'Expectation', in the former quote, and the emphasis on contribution in the second, are ways of expressing the importance of obligation and reciprocity that I'll take up in more detail in the Chapter Seven and which are significant because they suggest the (re)emergence of subjects that are committed to the idea of forging a media distribution paradigm based on commitment to others as much if not more than on self-gratification.

Seedboxes

Seedboxes are one of the more sophisticated and involved ways in which some members attempt to ensure stability and increase their ratio. The term generally refers to those commercial services that offer online storage space and the capability to continuously share media at high speeds directly from this space using a supplied BitTorrent client and a web-based interface, accessible from anywhere, for managing the client.²² When a user wishes to download a local copy of any media they have on their 'box', they can do so using File Transfer Protocol (FTP) which is one of many

²² Although technically a computer in the user's home that is dedicated to storing and serving shared media content could be also be considered a seedbox.

means for transferring files across the Internet. Seedboxes are ‘always on’ and ‘always seeding’ and can thus help alleviate problems with home networking configurations and Internet subscriptions that may be less useful for uploading torrents because they have low bandwidth caps and high bandwidth fees or throttling that make it difficult to continuously transfer data and thus to maintain the ratio requirement.

The use of seedboxes in BitTorrent filesharing is a relatively recent phenomenon that has arisen, alongside the idea of ‘cloud’ computing more generally, as a result of decreased costs in storage space, increased bandwidth capacity and uptake among home Internet users, and the proliferation of wireless Internet connectivity via WiFi and mobile phone data networks.²³ In essence the logic of the ‘cloud’ minimises the use of local storage and software in favour of storage and applications that are accessible via the Internet. Users of cloud services do not have to run local software or store files on their computers. As commercial ventures, seedbox providers are not dissimilar to myriad other ‘cloud’ offerings such as DropBox or SugarSync.²⁴

There are thousands of seedbox suppliers and many more websites that review them for price, reliability, reputation, and so forth.²⁵ A typical seedbox service gives customers storage space to which they can upload any media content they wish; via BitTorrent, the user can share content from and download to that storage space. Seedboxes are thus especially useful for private site members because they typically offer transfer speeds that are much greater than those achievable by the average home network subscription and usually feature very high bandwidth ‘caps’. For example, *superseedbox.com* offers as its cheapest plan 30Gb of hard disk space, 100 Mbps transfer speed with no cap on the amount of data transferred, and ‘unlimited active torrents’ for USD\$14.95/month.²⁶ Another outfit, *dediseedbox.com* offers ‘small’,

²³ On cloud computing see Eric Knorr and Galen Gruman, ‘What Cloud Computing Really Means’, *InfoWorld*, April 7, 2008, <<http://www.infoworld.com/d/cloud-computing/what-cloud-computing-really-means-031>> [accessed 12 February 2012]. On broadband take up in the US see John B. Harrigan and Aaron Smith, *Home Broadband Adoption 2007* (Pew Research Center’s Internet and American Life Project, 2007), <<http://www.pewinternet.org/Reports/2007/Home-Broadband-Adoption-2007/Data-Memo.aspx>> [accessed 12 February 2012].

²⁴ ‘Dropbox - Files - Simplify Your Life’, *Dropbox*, <<https://www.dropbox.com/home#:::>> [accessed 12 February 2012]; ‘File Sync & Online Backup - Access and File Sharing from Any Device - SugarSync’, *SugarSync*, <<https://www.sugarsync.com/>> [accessed 12 February 2012]. These are only some of a host of other services that are part of a burgeoning group of online services that are attempting to monetise storage capacity in the form of monthly subscriptions.

²⁵ Two such examples are ‘Seedbox, Seedboxes, Dedicated Seedbox Hosting, Cheap and Best Seedbox’, *Super Seedbox*, <<http://www.superseedbox.com/>> [accessed 12 February 2012] and ‘Seedbox | Reviews, Guides and More!’, *SeedBox*, <<http://seedboxes.co.uk/>> [accessed 12 February 2012].

²⁶ ‘Seedbox, Seedboxes, Dedicated Seedbox Hosting, Cheap and Best Seedbox’. Currently, this transfer speed is 20 times higher than my home Internet connection though 30GB of storage is significantly smaller than that found on the hard drives of today’s most budget level laptops.

'medium', and 'large' seedbox subscriptions for USD\$15, \$20, \$25/month, with storage capacity from 75GB to 250GB and 1Gbps transfer speeds.²⁷ Many seedbox providers promote their attention to security by advertising that they encrypt data that is stored on their servers, something that may be of concern to a high volume uploader who may be concerned about being exposed to lawsuits, which, as I noted above, often focus on uploading as the primary offense. Though in practice, like BitTorrent itself, seedboxes can be used for sharing any type digital content, much of their popularity is found amongst those who use them for sharing copyrighted media on private BitTorrent trackers. In fact, so focussed is the seedbox market on private torrent sharing that some providers even prohibit sharing through public trackers or throttle transfer speeds of these torrents.²⁸

The use of seedboxes on private sites is a matter of considerable controversy amongst private site members. Their use is seen by many to highlight a certain competitiveness surrounding the share ratio. This is because seedbox users are presumed to either be attempting to 'game' the ratio system by utilising the high speed and storage capacity of their seedboxes to increase their buffer. They are thus seen to be controverting some of the idealism of private torrent sharing by attempting to buy their way to greater access. Additionally, they are perceived to be putting average users at a disadvantage since average users have to struggle against the efficiency of the seedboxes in order to maintain a reasonable buffer to support their own downloading habits. Because seedbox transfer speeds are significantly faster than home connections, they will be automatically connected as seeders in torrent swarms because BitTorrent itself privileges high speed peers over low speed ones. One member at *SITE F* opines, '[j]ust uploaded a torrent, figured the 2011 autodoing people would get me some ratio... I was wrong. It has now been downloaded 20 times, though only once from the original uploader', while another at *SITE E* notes, 'people who pay out for seedboxes seem to have a big advantage. Even over the uploader ... I have a recent torrent with 35 seeds, I have 1.5 on it. Thats BS. The lad with the seed box has far more on my upload. Unfair for sure in my book'. The 'autodoing' to which the first poster refers are

²⁷ 'Seedbox Hosting | Torrent Seedboxes | VPS Seedbox', *Dedi Seedbox*, <<http://dediseedbox.com/>> [accessed 12 February 2012].

²⁸ *superseedbox.com* throttles publicly tracked torrents, while *seedboxhosting.com* does not and offers the following: 'most people don't need a seedbox for public trackers, but occasionally we come across someone who wants to seed to public trackers. We no longer restrict private trackers, but we do reserve the right to revoke this on an individual bases if it becomes a problem. See 'SeedboxHosting.com: Quality Seedbox Servers - Incredible Speeds - Root Access', *SeedBoxHosting*, <<http://www.seedboxhosting.com/>> [accessed 12 February 2012].

those who would have configured their torrent client (likely as part of a seedbox subscription) to automatically start downloading any torrent posted to the site that carries a 2011 release year. This is an extreme example of the strategy described above in which members will share media whether or not they themselves actually want the media for their own consumption. Here, in an attempt to ensure that they are transferring media constantly and thus achieving positive ratio buffer, seedbox users or those with fast connections simply automate the process of downloading and then seeding new torrents moments after they are uploaded to the site. The ramifications of this for members using home connections is that if they upload a torrent that is in turn downloaded immediately by a seedbox, the seedbox will become the preferred seeder in the ensuing torrent swarm. As a result, though the home user sees a positive effect on his or her ratio (100% of the data uploaded, or 1.0 ratio for that specific torrent) any future benefit of the upload will likely go to the seedbox.

But this is only one perspective on the use of seedboxes. Other members invert the logic of unfairness and note that it is unreasonable for any uploader to expect more than a 1.0 ratio on any given torrent they upload: 'I don't see the problem. When you upload something you're only ever guaranteed a 1.0 ratio—and that's provided someone downloads it'. Still others highlight the benefit that seedboxes bring to the site overall: 'keep in mind that seedbox users help keep a lot of the torrents on this site seeded and they do provide very fast speeds to leech from' offers one member at SITE F. This sentiment is echoed in a discussion at SITE E, in which a member somewhat more provocatively notes the connections between 'real world' economics, the ratio economy of private torrenting, 'success' in the game of gaining ratio buffer, and the benefits to the site: 'The system was created that way for a reason—to quickly share content. For the downloaders it's great that they get good speeds. Of course people who pay have an advantage, that's why they pay for it. It is their right to do so, just as it is your right not to'.

Seedboxes are yet another element of private BitTorrent filesharing that challenges axiomatic understandings of piracy as somehow totally divorced from the 'real world' economics of hardware, bandwidth, and other network costs. The ambivalence of seedboxes is that on the one hand they are perceived as an unfair advantage for the members who have them: other members feel as though they are not benefiting fully, in terms of buffer, from their uploads. On the other hand, the individual investment in a seedbox creates generally positive effects on the site's catalogue, and

thus the media-seeking membership as a whole, because they keep more torrents seeded at higher speeds for a longer time. Such a dovetailing between the ratio economy of private sites and the wider capitalist economy of hardware and storage providers illustrates the difficulty of seeing piracy in its totality as an outright rejection of property and a money economy; piracy, though it frees the circulation of cultural production from intellectual property, is still embedded within wider capitalist social relations.

USER CLASSES

There are a variety of other incentives in place at private sites. Maintaining a positive share ratio does not only mean keeping one's membership and downloading privileges. As I have mentioned briefly above, at a private site a member's 'status' or 'class' is tied directly to his/her share ratio—with the exception of those classes that are reserved for site owners, administrators, moderators, and other staff members, which I will discuss shortly regarding the power structure of private sites. Most sites employ such hierarchies in order to provide additional incentive for members to share media. There is no requirement that members progress upward through these hierarchies; instead, user classes exist as a form of reward for good sharing habits. Increases in status are usually accompanied by increased access to site features that are unavailable to those of lower statuses. A member's status is clearly visible to others both on their profile page and next to their name in any forum posts. Tables 5-4 – 5-6 illustrate the user classes at SITE E, SITE B, and SITE F.

Table 5-4. SITE E, User Classes.

Class	Requirements	Incentive
User	The default class for new members.	None
Power User	'More than 25GB uploaded and 5GB downloaded with a ratio above 1.05; must have been be a member for at least 4 weeks. The promotion is automatic (within 24 hours) when these conditions are met. Note that you will be automatically demoted from this status if your ratio drops below 0.95 at any time'.	Access to Invites, points, PU+ forum access, Top 10 access, and Power Search

Table 5-5. SITE B, User Classes.

Class	Requirements	Incentive
n00b	The default class of all new members. Must maintain a ratio of 0.6 after 10GB downloaded.	None
User	Member for at least 2 weeks, at least a 0.6 ratio. 'Note You can not be demoted from the User class but you will be warned if your ratio drops below 0.6 after 10GB downloaded and you will have 2 weeks to raise it before your account is disabled'.	Can use basic site functions, upload to user torrents, fill requests, Download from the browse torrents page.
Power User	Member for at least 4 weeks, uploaded at least 25GB, ratio at or above 1.05. 'Note that you will be automatically demoted from this status if your ratio drops below 0.95 at any time'.	Can view NFO files on torrent details page, Park their account.
Ultra User	Member for at least 6 weeks, uploaded at least 75GB, ratio at or above 1.10. 'Note that you will be automatically demoted from this status if your ratio drops below 1.05 at any time'.	In addition to the privileges of the Power User this user can make Requests.
Xtreme User	Member for at least 8 weeks, uploaded at least 150GB, ratio at or above 1.15. 'Note that you will be automatically demoted from this status if your ratio drops below 1.10 at any time'.	In addition to the privileges of the Ultra User this user can see the User Stats Bar.
Ultimate User	Member for at least 10 weeks, uploaded at least 250GB, ratio at or above 1.20. 'Note that you will be automatically demoted from this status if your ratio drops below 1.15 at any time'.	In addition to the privileges of the Xtreme User this user can Browse the User list.
Ace User	Member for at least 12 weeks, uploaded at least 500GB, ratio at or above 1.25. 'Note that you will be automatically demoted from this status if your ratio drops below 1.20 at any time'.	In addition to the privileges of the Ultimate User this user can view the Top 10.
Elite User	Member for at least 14 weeks, uploaded at least 750GB, ratio at or above 1.30. 'Note that you will be automatically demoted from this status if your ratio drops below 1.25 at any time'.	In addition to the privileges of the Ace User this user can view Expanded site stats.
Super User	Member for at least 16 weeks, uploaded at least 1TB, ratio at or above 1.35. 'Note that you will be automatically demoted from this status if your ratio drops below 1.30 at any time'.	This final class has the same access as VIP's. [addressed below]

Table 5-6. SITE F, User Classes.

Class	Requirements	Incentive
User	The default class for new members	Can make requests.
Member	Been here for at least 1 week, has uploaded at least 10 GB and a ratio above 0.7. Demoted to User when their ratio drops below 0.65.	Can edit collages.
Power User	Been here at least 2 weeks, has uploaded at least five torrents and 25 GB, ratio above 1.05. Demoted to Member when their uploaded amount drops below 25 GB, their ratio drops below 0.95 or their current uploaded torrent total is less than five.	Receives invites, can access notifications, create new collages, get a personal collage, access to the Power User & Invites forums, and immunity from inactivity disabling.
Elite User	Been here at least 4 weeks, has uploaded at least 50 torrents and 100 GB, ratio above 1.05. Demoted to Power User when their uploaded amount drops below 100 GB or their current uploaded torrent total is less than 50. Demoted to Member when their ratio drops below 0.95.	Access to the Elite forum, Top 10 filters, a second personal collage, and torrent editing privileges.
Torrent Master (TM)	Been here at least 8 weeks, has uploaded at least 500 torrents and 500 GB, ratio above 1.05. Demoted to Elite when their uploaded amount drops below 500 GB or their current uploaded torrent total is less than 500. Demoted to Member when their ratio drops below 0.95.	Access to the Torrent Master forum, earns custom title, a third personal collage, and unlimited invites.
Power TM	Been here at least 8 weeks, has uploaded at least 500 GB, ratio above 1.05, and has also uploaded one or more torrents in at least 500 unique groups (albums). Demoted to Torrent Master when their current uploaded torrent total contains less than 500 unique groups. Demoted to Elite when their uploaded amount drops below 500 GB or their current uploaded torrent total is less than 500. Demoted to Member when their ratio drops below 0.95.	Everything Torrent Master gets plus yet another personal collage.
Elite TM	Been here at least 8 weeks, has uploaded at least 500 GB, ratio above 1.05, and has also uploaded at least 500 torrents that are "perfect" FLAC (100% log for CD, or any Vinyl/DVD/Soundboard/WEB/Cassette/Blu-ray/SACD/DAT). Demoted to either Power TM or Torrent Master when their current uploaded torrent total contains less than 500 100% CD FLAC and/or Vinyl/DVD/Soundboard/WEB/Cassette/Blu-ray/SACD/DAT FLAC torrents. Demoted to Elite when their uploaded amount drops below 500 GB or their current uploaded torrent total is less than 500. Demoted to Member when their ratio drops below 0.95.	Same privileges as Torrent Master, but a total of five personal collages.

SITE E's hierarchy is a simple one that is tied to directly contributions made to the site. 'Power User Class' is clearly a reward for members who upload more than they download (the ratio of 1.05), but also for those who have contributed a significant real amount of data to the site (25GB). Time and duration of membership are also important

in user classes. Though SITE E only places a four week minimum membership duration for Power User class, other sites extend the amount of time required in order to proceed through the user classes. For example, SITE B expands the number of user classes to account for different amounts of uploaded data, share ratios, and membership duration. SITE F's user class is similar to that of SITE B but, there are many different privileges or incentives offered to members who rise in the hierarchy. I will address these incentives shortly.

The user classes employ a meritocratic logic that is based on a member's capacity to share and his/her success at contributing content to the site. As I addressed in the discussion about the share ratio, this contribution is no easy task. Therefore, the majority of a private site's membership is likely to found in the lowest user class. This is evident in the user class distribution in Table 5-7, from at SITE F, which is the only one of the sites noted above to publish such statistics:

Table 5-7. SITE F, User Class Distribution.

Class	Totals (as of 20 December 2011)
User	225,062
Member	59,832
Power User	15,342
Elite	3,769
Torrent Master	215
Power TM	88
Elite TM	40
TOTAL	304,348

Clearly, the benefits of rising in user class consolidate among only a very small percentage of the total membership, with less than one-tenth of one percent of the membership occupying the upper three member-attainable user classes. This is unsurprising given that it would take a tremendous amount of dedication to uploading and, in the case of the 'Elite Torrent Master', a great deal of effort transcoding perfect FLACs, ripping vinyl, and so forth. Perhaps a more compelling reason for the bottom-heavy membership is found in two forms of seeding behaviour: lazy-seeding and over-seeding. The former are those users who maintain or stay very close to the minimum ratio requirement necessary to keep their downloading privileges on a site. These members are 'download oriented' and are contrasted with the latter, or those that make attempts to outdistance the ratio requirement by continuous seeding and contribution of

new material; these members are 'deposit-oriented'.²⁹

Thus, the above statistics are deceptive. Members who occupy the lowest levels cannot be assumed to simply free ride the system, since it is possible that they contribute a great deal of content and seeding power to the site while only maintaining a minimum ratio, which despite their contributions prevents them from rising to the next user class. That said, clearly those members who are part of the upper user classes have contributed both a great deal of actual data (at least over 100GB at SITE F) *and* a great deal of seeding time. Unfortunately, none of the sites indicate whether or not the members of the upper user classes are all those who use seedboxes for their uploading and downloading. Given the requirements, especially at SITE B and SITE F, it is reasonable to assume that at least some of those members are using seedboxes. This again points to the overlap between piratical practices and 'real world' economics: those who ascend in the user classes and thus gain access to enhanced site functionality are also likely those who expend a certain amount of money in order to do so.

Incentives for sharing are the foundation of the user class system. The types of incentives vary, but Promotions in user class, as noted in the figures above, tend to revolve around three primary axes in a member's relationship to the site: (1) the lessening of risk, (2) increased control and power, and, (3) perhaps most importantly, increased access to information. Members who progress upward through the user classes experience less risk of losing their account due to a poor ratio since they only suffer the potential for demotion to a lower user class rather than having their downloading privileges suspended or their accounts disabled, as members who remain in the lowest class would. The ability to 'park' an account, which is the same as immunity from account deletion due to inactivity, refers to the requirement that members demonstrate activity on their account within a given period of time: they must log in at least once every 60 days lest their account be deleted due to inactivity. Those at the level of 'Power User' and above at SITE B and SITE F become immune from this requirement.

Any control or power that private site members might attain is really only ever partial since it is pre-defined by the site owners and administrators who ultimately wield the only real power on a private site, which is the ability to simply cease the site's operations and promote or delete members at their discretion—in short, owners and upper administrators are the only ones who are able to manipulate the site at the level of

²⁹ Jia and others, 'Fast Download but Eternal Seeding'.

its code or database functions. Within the limited possibilities that do exist for members to exhibit agency in terms of site operations, only SITE F, the three examples noted above, offers opportunities for members to exert any influence over the site's functionality. Such control is seen first in the ability of SITE F 'Elite' users and above to 'edit torrents'. This means that Elites are permitted to alter details about torrents found on the 'torrent page' (which I discuss below), perhaps clarifying or correcting details provided by the original uploader. Thus, Elites and higher classes earn significant power to intervene directly at the level of the database of information about the media that is available to be shared. This is important because databases are foundational to private sites and to filesharing more generally since it is only by accessing them that one can find content to begin with. It was Napster's centralising of a database of information about users and media that differentiated it from 'primitive' Internet searches that relied on a client-server model for downloading and uploading media.³⁰ This innovation has impacted all peer-to-peer filesharing since and is foundational to private BitTorrent sharing. Thus, Elite users and higher class are granted the power to manipulate the collective informational production of the site's wider membership—the database of information about media. Additionally, with each promotion in user class, members are offered access to greater informational content in the form of previously restricted discussion forums and site statistics and lists. In the case of SITE F, members who progress upwards are granted the ability to edit or create wiki pages and to create and contribute to 'collages'. I will explain both discussion forums and other informational content now.

Forums

As has been evident throughout this chapter, discussion forums on private sites are vibrant places in which members socialise, trade tips, and discuss various ephemera. There is little that distinguishes private site discussion forums from any other online forums. There are subforums for specific discussions, such as site-related discussions, help forums, and media-specific forums. Unsurprisingly, 'general chat'-style subforums prove to be the most popular on most private sites. A survey of 'The Lounge', a general discussion subforum at SITE F in January 2012 indicates that almost 1.5 million posts have been made since the site began in 2007. SITE E, which has a slightly smaller

³⁰ Ryan Roemer, 'The Digital Evolution: Freenet and the Future of Copyright on the Internet', *UCLA Journal of Law and Technology*, 6 (2002) <<http://www.lawtechjournal.com/home/articles/39/>>.

membership but was also founded in 2007 had about half the total posts as SITE F on its general chat forum (approximately 600,000) while the even smaller SITE B had around 8,000 posts in a similar forum. In each case, however, these general chat forums were considerably more popular than any other more topic-specific subforums, such as those devoted specifically to music, software, site news, and so forth. The popularity of the general forums confirms that, as with forums on public sites, the social element of private sites largely revolves around the discussion of quotidian topics, Internet memes, and general ephemera. Some examples of ongoing discussions from around this time period are: 'What anti-virus do you use?', 'NFL Playoffs, Superbowl', 'Do You Wanna Dance', 'Women With Hairy Arms', 'Post Pictures of Attractive People, and the ubiquitous 'Drunk Thread' (in which users are encouraged to post while in the throws of inebriation) and 'I Just Had Sex Thread' (in which users are encouraged to post ...). There are also discussions about contemporary political issues, issues related to filesharing and media piracy, and of course plenty of discussions about media (usually in separate subforums for music, video, etc.)

The quotidian nature of discussion forums on private sites reinforces the fact that piracy is a phenomenon that is bound up with everyday life concerns. As much as, if not more so than any commercial social network, private sites are spaces where people who have a common interest gather to share and communicate. The everyday banality of these discussion marks these sites not as radical hotbeds of anti-copyright and anti-capital activism, but rather as sites that revolve around a practice that has become, to a certain extent, naturalised. Such everyday flavour in the discussions suggests that there is a kernel of truth to be found in the common declaration by the media industries that piracy has resulted in a generation that sees little problem with not paying for media content. I am not suggesting here a form of the 'digital native' argument, which sees youth as somehow innately more savvy with Internet technologies than adults.³¹ I am however suggesting that the lack of focussed activist politics in the forums of the private sites is significant because it marks these sites as a form of autonomous practice. It is a practice that is ultimately more concerned, as was Bram Cohen with BitTorrent, with finding alternatives for procuring media content that are more efficient, potentially more pleasurable, and involves some commitment to a non-commercial social process. In effect, private site operators and members directly

³¹ Sue Bennett and others, 'The "digital Natives" Debate: A Critical Review of the Evidence', *British Journal of Educational Technology*, 39 (2008), 775–786.

intervene in the circulation of media and perform a type of ‘prefigurative politics’ that involves the simple insistence on doing things differently than the commercial media industries. Such a politics is concerned to craft ways of being *now* that embody through action many of the principles that traditional vanguardist politics sees only as possible *later*. The lack of an explicit political programme does not necessarily mean that quotidian involvement is any less political or has any less of an impact.³²

As users progress through the hierarchy of user classes, they are offered access to forums only accessible by their user class and above. Presumably, as in the case of SITE F where certain user classes are invested with more power to contribute to the sites, it is highly likely that there would appear more discussions about the various responsibilities that come with a promotion in user class. I think it is safe to assume that topics would still likely revolve around the quotidian and ephemeral. Exclusivity in the forums does however demonstrate the important role played by exclusion *within* private sites, something that parallels the exclusionary practices of private sites in relation to filesharing more generally, and the exclusionary practices that have come to inform a great deal of contemporary neoliberal capital.³³ It is important to highlight exclusion in for the same reason that it is important to highlight the ‘real world’ economics of private sites: such exclusivity, both on and off the sites, places limits and boundaries on access to information and raises important questions about the role of private sites in the production and maintenance of a media commons, whether they are potentially emancipatory in this regard or whether they potentially reinforce exclusionary practices that have come to dominate our contemporary historical moment, not only with regards to access to cultural production, but also in the wider political economy of education, healthcare, and so forth. I will discuss exclusion in media piracy in more detail when I discuss the role of enclosure and exclusivity in Chapter Seven.

Lists

Top ten lists, and other such data are other informational areas that, at some private sites, are available to members as they are promoted through the hierarchy of user classes. Though most sites publish a certain amount of useful data on their post-login homepages, such as the number of torrents shared, number of users, total amount

³² For a powerful argument for the importance of prefigurative politics to the contemporary historical moment see David Graeber, *Fragments of an Anarchist Anthropology*, 2nd edn (Prickly Paradigm Press, 2004).

³³ See David Harvey, *A Brief History of Neoliberalism* (London: Oxford University Press, 2007).

of data shared, and so forth, many sites are fairly restrictive regarding information flow of their sites. One of these areas is the 'Top 10' lists. As we can see from the examples above, only SITE F allows members of all classes to access lists of most active torrents (i.e. torrents that have been most active in transfer within a certain time period—usually 24 hours), lists of torrents with the most data transferred, and lists of most popular torrents across a variety of genres. Like 'Top 10' lists of all stripes, these lists are obviously useful in determining popularity; there is, however, another incentive created on those sites that restrict access to such lists. As I noted above, torrents often see their highest activity in the first days of their availability. In terms of one's ratio then, the ability to discern which torrents have seen a great deal of activity within, say, a day or two of their release, provides members who do have access to such lists the possibility of identifying and downloading such torrents in hopes that, by being an early downloader (and ultimately an earlier seeder), they will stand a greater chance of increasing their ratio as more leechers join the swarm. Members who have demonstrated good sharing habits and who have been promoted through the ranks are thus afforded the benefit of access to means through which they can maintain and even increase their share ratios.

Another such example is access to the list of users. On many Internet forums, and especially on those that require some sort of registration, a user list is easily visible once a member has logged in. Often found at the bottom of a list of subforums, the user list may reveal the following information: number of registered forum members; which members currently logged into the forum; statistics about how many users have been online that day, month, year; the maximum number of users ever recorded online at one time. On a private site then, the ability to see a list of online users certainly aids in the potential for close to real time socialising because, for instance, a member is able to send a private message to another whom they know is currently logged in. Furthermore, having access to a list of users means that a member can browse the list and view other members' profiles. This is potentially useful in finding other members who have similar interests; because it is sometimes possible to view a member's history of torrent downloads, a member would be able to determine who may also be interested in any material he/she might be sharing. The user list is also useful for determining who among the membership is a frequent uploader; this could be of great benefit because one could join a torrent swarm early and take advantage of becoming an early seeder.

Wiki Pages

Another important area of access to information is the Wiki pages, which, out of the sites researched for this thesis, appear to be in use only at SITE F and a popular movie site called SITE C, which runs the same content management system (i.e. the user interface and database manager) that was designed by people associated with SITE F.³⁴ Instead of access to the consumption of information, increases in user class result in access to greater forms for the production of information beyond that which already takes place in the uploading of torrents, contributions to the site's forums, and in the database of user activity and statistics. This is important because Wiki pages are a form of direct contribution to the increased utility of the site because the Wiki pages are the primary source for members who are seeking answers to questions they have about site operations, rules, terminology, audio or video encoding, home networking configuration, and so forth. All private site publishes a list of site-related documents that outline rules and regulations about all manner of on-site activity, from behaviour in the forums to those that address the types and quality of media content allowed. SITE F and SITE C present in addition to these documents myriad guides, tips, and definitions in the form of user-editable wiki pages. Wiki pages are an important departure from the way in which information is normally offered on other private sites and marks a significant expansion of the emphasis on contribution that characterises private sites generally, and on which SITE F and SITE C seem to place a particularly high priority. However, exclusion comes into play once more because though the ability to *create* a wiki page appears accessible to 'Users', more advanced *editing* and *contribution* is only available to members of higher user classes; often the pages are restricted to 'Power User' and above, and many are restricted to staff user classes and 'VIP' members, a 'special' user class that I will discuss shortly.

Collages

'Collages', which are only found on SITE F, are member-created collections of music that represent yet another way in which users are able intervene in the informational content of the site. As with the Wiki pages, this intervention is important because it represents the greater opportunities that exist for users to contribute directly

³⁴ 'SITE C', *SITE C*, <<http://SITE C.eu/>> [accessed 12 February 2012]; 'Project Gazelle :: Project Gazelle', *Project Gazelle*, <<http://SITE F/gazelle/>> [accessed 12 February 2012]; Ben Jones, 'A Sneak Peek at SITE F's Project Gazelle', *TorrentFreak*, March 11, 2008, <<https://torrentfreak.com/sneak-peek-project-gazelle-080311/>> [accessed 12 February 2012].

to the enhanced utility of the site. Members at SITE F are afforded a great many of these opportunities in line with the site's overarching emphasis on member contributions. Members that are allowed to create collages can fashion pages that contain links to torrents that are already available on the site and compile them into collections of music based around certain unifying themes such as genre, or based on pre-existing series or charts that originate from record labels, websites, or magazines. There are several categories of collage that are acceptable at SITE F: Discography, Staff Picks, Label, Charts, Personal, Theme, and Genre Introductions. Unsurprisingly, there are a series of strict rules regarding the creation of collages. The rules also note which of the user classes may post and also some general guidelines and regulations. The rules are adamant '[c]ollages in the Discography, Staff Picks, Label, and Charts categories must be based on fact, and not opinion' while noting that in the other categories, members must respect one another's opinions. 'Theme/Genre Introduction collages', the site notes, 'must be sensible, and reasonably broad'. One user-created 'Genre Introduction' collage entitled 'Milestones of progressive rock' contains links to 72 different albums ranging from Chicago's self-titled debut recording *Chicago Transit Authority* (1969) to Frank Zappa's *Hot Rats* (1969) with contributions from Yes, Tangerine Dream, Santana, Pink Floyd and a host of others. Another 'Personal' collage, 'Semi-arbitrary list (personal collage #2)', contains over 200 entries that the member has tagged 'experimental, noise, drone, minimal, ambient, dark.ambient'. 'Charts' collages consist of collections based on published charts from online and traditional sources such as Wired Magazine, SPIN, Pitchfork, and tinymixtapes.com. The 'Theme' section contains a variety of collections that contain thematically linked torrents such as: albums by artists who performed at a particular festival, Karaoke, 'Japanese Folk Music', 'Masters of Hardcore', and the like. 'Label' collages collect all of the available torrents from a particular series released by a record label, such as the Dutch Label T2Entertainment's *Kind of Jazz* series, which features ten CD box set collections from artists such as Artie Shaw, Bill Evans, Charlie Parker, and others, or the 98 torrent strong 'Metal Mind' collage, which brings together artists released by Poland's Metal Mind Productions.

Collages are thus not unlike the shared playlists that are one of the key features of contemporary commercially-oriented music streaming sites such as *Spotify*, *Grooveshark*, *Rhapsody*, or *Last.FM*. However, whereas the social features employed by commercial online music distribution venues are a way for the firms to collect data about users as a means to monetise their sites through advertising or subscription

services, the collages at SITE F are not valorised in this way. Instead, members who are permitted to create collages find their labour valorised in the increased utility of the site *for other members*. This difference in the valorisation of listeners' and audiences' labour—the difference between the orientation of users' labour toward profit or toward utility for others—forms the basis for a critique of audience commodification in Chapter Six.

POWER STRUCTURE

Private sites, like their public counterparts, are at base benevolent dictatorships administered by a handful of site owners who, largely by virtue of their ability to initially purchase webhosting and server space, are responsible for the site's operations, for legislating rules and bestowing power upon those who can enforce them, and for determining who is granted access. In this sense, BitTorrent filesharing is anything but democratic at the level of its organisational structure. The hierarchy of power is clearly articulated in a private site's rules. SITE B notes: 'Don't be rude to staff [...] If a member of staff tells you to do something...do it!', while SITE E states, 'Do not defy the expressed wishes of the staff. Staff have wide discretion over how to handle rule violations'. SITE F is even more explicit:

All staff decisions must be respected. If you take issue with a decision, you must do so privately with the staff member who issued the decision or with an administrator of the site. Complaining about staff decisions in public or otherwise disrespecting staff members will not be taken lightly. *Access to this website is a privilege, not a right, and it can be taken away from you for any reason.* (emphasis added).

In many ways, private site rules are 'End User License' agreements: members voluntarily submit to these rules and accept them as a reasonable compromise in pursuit of their end goals, which are to download music and participate in an online filesharing community. This is not dissimilar from the agreements that characterise membership at any number of other more legitimate online venues, though the 'contract' one enters into at a private site is less likely to be considered binding in the eyes of a state, given the hazy legalities of private filesharing. Thus, while there may be legally binding appeal mechanisms in place at Facebook or Twitter that a user might pursue should, for example, their account be disabled without sufficient reason, processes for such an appeal at a private site are minimal, if they exist at all, and they are not codified in any way.

Special Statuses

The hierarchy of power means that there are user classes that are not attainable by the wider membership as a reward for good sharing habits. This is because such classes are reserved for site administrators, or because members can only become a part of these classes at the discretion of the administrators. Most sites have a special class reserved for 'VIP' members. Typically, VIP status is given at moderators' or operators' discretion. The wider membership is not made aware of how exactly one becomes a VIP and, as is clear from the following statements about VIP status, even enquiring about becoming a VIP is likely to be counterproductive. *SITE E* states that a VIP gets the 'same privileges as Power User[s] and is considered an Elite Member of SITE E' and they are '[a]ssigned by mods at their discretion to users they feel contribute something special to the site'. Members are warned that '[a]nyone begging for VIP status will be automatically disqualified'. At *SITE B*, the emphasis on 'special contributions' is the same, as is the warning: 'Don't ask for VIP, you'll get it if you deserve it. Do not ask for VIP or you will never be one'. *SITE F* offers only the vaguest criteria for how one can become a VIP: 'Be awesome'. Despite the mystery that surrounds how VIP's are chosen, it is clear that VIP members are given a great deal of power since they usually enjoy all the benefits of the highest member-attainable user class.

There are also other special user classes that exist, such as *SITE F*'s 'Torrent Celebrity' class, which is reserved for 'Special People on Other Trackers' who meet certain requirements and [are approved by a *SITE F*] staff member'. These members gain 'access to the Torrent Celebrity forum, advanced Wiki editing and can send unlimited invites'. This essentially means that staff and administrators from other private sites will be given preferred status at another, a type of elite class of owners and operators. Similar privileges are reserved for former *SITE F* staff members, who come to be known as 'Legends'.

There are two other special user classes. Like the VIP classes, both involve promoting members at the discretion of site administration, and both are classes that are invested with a significant amount of power with regards to validating and manipulating site information. The first is *SITE E*'s 'SITE E Iron' class. This class of member is responsible for assessing the quality and validity of certain torrents and giving them the site's 'seal of approval', which indicates that the torrents are of a particularly high quality. They function in a way similar to *SITE F* moderators that assess whether or not

FLAC files are 'perfect'. The second class, the ominously named 'Delta Team', is found at SITE F. The Delta Team is said to exist because

SITE F relies very heavily on the rules that it holds everyone to, and the guides we have to navigate them. To ensure that these continue to be up-to-date, accurate and suited perfectly for the site we've decided to create a new userclass [sic]. The Delta Team, as they will be known, will help us with that. They will be engaged with vetting and creating rules and wiki articles, maintaining editing standards and guidelines as well as working in line with our First Line Support.

Both the 'SITE E Iron' and 'Delta Team' classes are thus tasked with validation and oversight. Their precise function is to act as authoritative groups that determine the quality of the site's informational content, both at the level of the media itself, in the case of the 'SITE E Irons', and at the level of site documentation. These classes demonstrate, yet again, the crucial and wide-ranging role of oversight that differentiates private sites from public sites and which mark private filesharing as a significantly complex terrain of discipline and control.

Moderators and Forum Rules

From the Internet's earliest days scholars have analysed and theorised the functions and effects of various forms of text-based 'online communities'. For example, Barry Wellman's influential studies of networked local communities sought to understand the variety of ways in which email, discussion forums, and chat rooms impacted the daily social lives of individuals and groups that were already in some way connected through physical proximity. The studies offered that Internet communication appeared to augment already existing social connections by intermingling with extant communication forms such as face-to-face communication and telephony. Wellman noted that far from being a distraction from or separate form of sociality, Internet communication was 'being integrated into the regular patterns of social life'.³⁵ In a similar vein, Howard Rheingold's personal experience and research on the Whole Earth 'Lectronic Link (the WELL), which began as a bulletin board service in 1985 and gave rise to many now conventional forms of online etiquette and forum rules, reached a similar conclusion about the 'everydayness' of online communication. Rheingold noted

³⁵ Barry Wellman, 'The Glocal Village: Internet and Community', *Idea&s: The Arts & Science Review*, 1 (2004), 26-30 (p.29).

that:

People in virtual communities use words on screens to exchange pleasantries and argue, engage in intellectual discourse, conduct commerce, exchange knowledge, share emotional support, make plans, brainstorm, gossip, feud, fall in love, find friends and lose them, play games, flirt, create a little high art and a lot of idle talk. People in virtual communities do just about everything people do in real life, but we leave our bodies behind. You can't kiss anybody and nobody can punch you in the nose, but a lot can happen within those boundaries. To the millions who have been drawn into it, the richness and vitality of computer-linked cultures is attractive, even addictive.³⁶

The diversity of communication found in online communities prompted Rheingold to conclude that '[t]here is no such thing as a single, monolithic, online subculture; it's more like an ecosystem of subcultures, some frivolous, others serious'.³⁷ The diversity and 'everydayness' of online social communication is evident on private BitTorrent sites as members go about the quotidian business of socialising. It is also an important corollary to the important roles that music and other media have come to play in everyday life: it seems appropriate that discussions about music and other media would take place on sites dedicated to sharing and consuming such media.

Robert Plant, in his taxonomy of online communities, reinforces Rheingold's assertion of the heterogeneity of such social spaces by offering a broad definition of what constitutes online 'community'. Plant offers that such communities are 'collective group[s] of entities, individuals or organizations that come together either temporarily or permanently through an electronic medium to interact in a common problem or interest space'.³⁸ Plant's definition is broad enough to acknowledge the temporal fluidity of online social environments and the importance of interactivity while avoiding narrowly defining which types of 'problem or interest spaces' can be considered communities.

Pippa Norris built upon Robert Putnam's analysis of bridging and bonding social capitals and argued the the 'bridging' and 'bonding' aspects of communities more

³⁶ Howard Rheingold, *The Virtual Community: Homesteading on the Electronic Frontier* (Boston, MA: Addison-Wesley, 1993). Online text available at *howard rheingold's | the virtual community* <<http://www.rheingold.com/vc/book/intro.html>> [accessed 3 August 2012].

³⁷ Rheingold.

³⁸ Robert Plant, 'Online Communities', *Technology in Society*, 26 (2004), 51–65 (p. 54).

generally were, in online contexts, best conceived of as a continuum.³⁹ Putnam's capitals help explain how the individuals within a community are related to one another and to the external world. For example, bridging social capital is that which orients a group outwards, and is characterised by reaching across social boundaries such as race, class, age, or gender. Bonding groups are those that consist of members united under a common ideological orientation or goal and implicitly or explicitly prohibit membership for those with different views. Bonding communities, though they can provide positive environments for their members, run the risk of negative externalities via exclusion of others.⁴⁰ Norris's research indicated that the 'easy-entry, easy-exit' nature of online communities, even ostensibly open ones, can deepen their ideological homogeneity (i.e. those of an opposing viewpoint could simply leave a forum, or not visit a website). Yet, the textual communication of online communities breaks down standard 'social identity cues' such as race, class, and gender, which can allow for greater heterogeneity through the participation of those from a number of different backgrounds. Thus, online social groups can feasibly perform both bridging and bonding roles despite tendencies toward one or the other extreme.⁴¹

Indeed, forums on private BitTorrent sites perform both bridging and bonding roles simultaneously. A private site's utility generally increases the greater the number of active members who share media. The sites thus reach out, or 'bridge' in a way, in order to attract new members who will (ideally) share new and existing media. The bridging orientation of private sites is also evident in the 'open signup' periods, applications, and interviews described in Chapter Four. Though private sites are not 'open' to the extent that public sites are, they do actively seek out new members that share the goals of the sites. However, once those new members are admitted, they are 'trained' in the cultural and social norms of the site, something that forum moderators take as their primary task. The development of social norms in online communities has been identified as a crucial factor in how a community maintains orientation towards its goal, whatever that goal may be.⁴² Thus, a private site's bonding function is expressed through the enforcement of rules and regulations and their accompanying disciplinary

³⁹ Pippa Norris, 'The Bridging and Bonding Role of Online Communities', *Society Online: The Internet in Context*, ed. Philip N. Howard and Steve Jones (Thousand Oaks, CA: Sage, 2004), 31–42.

⁴⁰ Robert D. Putnam, *Bowling Alone: The Collapse and Revival of American Community* (Oxford: Oxford University Press, 2002).

⁴¹ Norris.

⁴² See Sara Kiesler and others, 'Regulating Behavior in Online Communities', in *Building Successful Online Communities: Evidence-Based Social Design*, ed. by Robert Kraut and Paul Resnick (Cambridge, MA: The MIT Press, 2012), pp. 127–178.

paradigms as a means to ensure that members engage in 'proper' behaviour, ranging from prohibitions on commercial content to appropriate etiquette and a deference to authority. All of this, in turn, helps to create the continued conditions for the efficient sharing of a wide variety of digital media.

'Moderators' at private sites are invested with the power to oversee forum and Internet Relay Chat discussions and to enable and disable other members' accounts. This class of member is attainable, like the VIP class, only at the discretion of a site's core staff. Moderators wield a significant amount of power at private sites since they are essentially a type of police force charged with enforcing the myriad site regulations and keeping order in the forums. Indeed, there are strict rules for engagement in the forums and private sites are clear about their rules regarding offensive posts and deliberately antagonistic discussions. This clarity is evident in the SITE E warning, which echoes those found on other sites: 'No aggressive behavior, flaming, excessive profanity, racism, sexism, bigotry, intolerance, or hate-mongering. Users should remain kind and courteous to other users, at all times. If you feel that a post should be deleted for whatever reason, please use the "Report Post" button'. SITE E also seems particularly concerned with potentially offensive avatars, which are images that members choose to associate with their on-site identity and which appear alongside their forum posts:

If you choose to have an avatar, it *must* be delicious (food) or cute (stuffed animal, pet, etc. 'Hot chicks' etc. don't count). If it does not pass the 5 Year Old Test, it is not a suitable avatar. Additionally, avatars must have a maximum width and height of 400px, and a maximum size of 50kb for static, and 200kb for animated. As a rule of thumb, if you're unsure whether your avatar choice is within the rules or not, pick a different one. (emphasis in original)

The '5 Year Old Test' is meant as a way to determine the suitability of an avatar. *SITE E* offers the following definition:

Can you show it to a five year old girl?
 ... without her going 'eww?'
 ... without her crying?
 ... without her asking 'what are they doing?'
 ... without her mother smacking you for showing her the picture?
 ... without explaining to a judge why you showed it to her?
 ... and after all of that, she goes 'ooh' or complains about being hungry?

If you answer no to any of these questions, you need to pick a better avatar.

If a member is caught with an inappropriate avatar and it is reported, the member will be sent a private message from a moderator noting that their avatar has been deleted. In this case, the avatar is usually replaced with a generic site avatar that notes something along the lines of 'I've been a bad member', which, until the member chooses a different avatar, is visible to all who see his/her profile page or forum posts.

Other rules are concerned with forum etiquette or, in online parlance, 'netiquette'. Codes of conduct for Internet communication were codified by the Internet Engineering Task Force (IETF) in 1995, and most of the rules in place on private sites echo the IETF's recommendations.⁴³ Such rules include: 'Don't "bump" threads (making unnecessary posts to gain attention for a particular thread)', which is a variant on the IETF's 'Avoid posting "Me Too" messages, where content is limited to agreement with previous posts'. The rationale for minimising such posts is provided by SITE F: 'if you're actually trying to find information, it's a pain in the neck. So save those one-word responses for threads that have degenerated to the point where none but true aficionados are following them any more'. Members are also encouraged to 'post using correct punctuation, grammar, spelling, and without overusing emoticons' since, 'Psts like dis wil b deltd n u wil b warnd'.⁴⁴ Moreover, '[d]on't use all capital letters, excessive !!! (exclamation marks) or ??? (question marks), it seems like you're shouting!'

In addition to 'netiquette', content is also strictly policed over and above the ban on offensive imagery and profanity mentioned above. On largely English speaking sites members are instructed to only use that language in the forum since, according to SITE F, 'If we can't understand it, we can't moderate it'. Such a position once again reinforces the role of exclusion in private filesharing, this time around the issue of language. However, there are many non-English speaking private sites too. Generally, though, the rules regarding content revolve around two poles: (1) the discouraging of

⁴³ S. Hambridge, 'RFC 1855 - Netiquette Guidelines', *Internet Engineering Task Force*, 1995, <<https://tools.ietf.org/html/rfc1855>> [accessed 12 February 2012]. In the introduction to the IETF's guide it is stated: 'In the past, the population of people using the Internet had 'grown up' with the Internet, were technically minded, and understood the nature of the transport and the protocols. Today, the community of Internet users includes people who are new to the environment. These 'Newbies' are unfamiliar with the culture and don't need to know about transport and protocols. In order to bring these new users into the Internet culture quickly, this Guide offers a minimum set of behaviors which organizations and individuals may take and adapt for their own use'.

⁴⁴ Author's translation: 'Posts like this will be deleted and you will be warned'

posts that reflects a lack of willingness to perform one's own research in matters requiring assistance and (2) a prohibition on content that is deliberately commercial or promotional in manner. SITE F asks that members:

[t]ry not to ask stupid questions. A stupid question is one that you could have found the answer to yourself with a little research, or one that you're asking in the wrong place. If you do the basic research suggested (i.e., read the rules/wiki) or search the forums and don't find the answer to your question, then go ahead and ask. Staff/FLS [Front Line Support] are not here to hand-feed you the answers you could have found on your own with a little bit of effort.⁴⁵

SITE E similarly implores its members: 'Before starting a new thread, please make sure it doesn't exist already by using the search function. For site-related questions, also make sure that you read the Rules and FAQ thoroughly before starting a new thread'. In each of these cases there is the expectation that members of the site are familiar with the site's rules. Indeed, at the time of their membership registration they are required to acknowledge the rules and promise that they will familiarise themselves with them. Of course, ticking a box on a web signup form has reached the point of reflex action for most Internet users, so moderators are constantly combing the forums and instructing members to 'read the rules' and directing them to the appropriate documentation on the site.

As with the reporting of torrents for infringing rules, the membership has also taken up the job of policing the forums themselves and will often anticipate a potential issue and warn another member themselves by directing them towards rules pages. This alone is not unique to private sites. Indeed, similar admonitions occur frequently on open-source software help forums, where users consistently post questions on topics that have been covered dozens of times in other threads.⁴⁶ Such an emphasis on self-directed problem solving again reinforces the high priority placed on expertise within private filesharing, something that, is also reflected in the considerable amount of

⁴⁵ 'Front Line Support' at SITE F 'are not official staff members—they're users who have volunteered their time to help people in need'. They are each listed on the 'Staff' page as having particular specialities in areas such as audio equipment, networking, editing/uploading, hardware/software, and, interestingly, Dutch and Spanish language support. FLS at SITE F are not invested with the power to address disabled accounts, warnings, invites and other areas that are handled by senior staff members. SITE F asks members to '[u]se your brain for this one. First Line Support are just users, like yourself, who happen to be knowledgeable and willing to help'. Periodically the site advertises for 'help wanted' if they are need of more volunteers. I asked a member of the SITE B support staff how he or she got the position: 'You have to be asked by an FLS leader [...] best way to get on the team is be active in the forums or in IRC... be noticed'.

technical knowledge required to engage in audio encoding, uploading, and configuring home networking connectivity.

In line with many private sites' attitudes toward the commodification of their communities, as was evident in the scandal involving the SITE G invite seller above, there are a variety of rules that prohibit posts that are commercial or promotional in nature. Such a prohibition is by no means universal, but SITE E and SITE F in particular are very detailed in the types of promotionalism that are banned. SITE E notes that '[t]he buying, selling, trading, begging for, or giving away of goods or services is strictly prohibited—This is NOT eBay or craigslist' and members are instructed to

not post any type of referral link. These are links that when clicked, the user can possibly gain something like an iPod, commission, referral bonuses, etc. This includes scam sites such as lockerz [commercial file storage sites] or other pyramid schemes. Any user posting such links will be banned with no chance of repeal.

SITE F is particularly harsh regarding discussions of money: 'No asking for money for any reason whatsoever. We don't know or care about your friend who lost everything, or dying relative who wants to enjoy their last few moments alive by being given lots of money'. SITE E also requests that there be '[a]bsolutely no discussion of illicit drug pricing, buying/selling, or manufacturing', however they do offer one crucial caveat, which is that '[d]iscussion of recreational, moderated, and safe use is encouraged'. Relatedly, discussions that see members 'begging' for invitations to other private sites are particularly egregious. However, at many private sites there are class-restricted forums in which members may *offer* invitations to other sites, which, like many private sites positions on trading invites and the encouraging of members to only invite 'trusted' online or real world friends, presumes that those who are members of one site will likely be good calibre members for another. The benefit of having subforums for offering invites also means that those with invites to distribute can observe the sharing habits of potential invitees in order to further ensure their worthiness.

⁴⁶ An good indication of the frustration that can occur as a result of such lax research behaviour is the adoption by many forum regulars of a post 'signature' that includes an animated 'GIF' image that features a screenshot of a generic forum posting menu. As a mouse pointer moves toward the 'post to forum' link, another hand-shaped pointer sweeps in from the right side of the image and forcibly redirects the initial pointer to the 'search this forum' link. See the image here 'Searchfirst.gif (GIF Image, 261 × 150 Pixels)', *SamVahedi.com*, <<http://samvahedi.com/searchfirst.gif>> [accessed 12 February 2012] or perform a web search for 'searchfirst.gif'.

Regulatory paradigms on private site forums reveal much about the dualistic character of online communities: they ‘are both technical devices [sic] *and* social arrangements; they invoke the identity of a network *and* a community, and manifest both hierarchic *and* heterarchic structures’.⁴⁷ A private site is a technical device in so far as it facilitates the network connections necessary for the efficient transfer of data between and among various computers. However, such a technical arrangement is both facilitated and augmented by the social arrangements that exist on the sites, arrangements that are actively cultured through the enforcement of rules and regulations both within and outside of the forums. Private sites are networks insofar as they are made up of connections between and among people and computers, yet they are also communities since they are clearly a form of common interest or problem space, as noted by Plant, and they perform the varied functions of bridging and bonding sociality as described by Putnam and Norris. And within the bounded structure of a private site, clear hierarchies emerge—such as those that delineate the various user and administrator classes—while the process of sharing media is largely dependent on promoting and maintaining a heterarchy of egalitarian access to media in which, at least in theory, each participant can play an equally important role in maintaining a site’s collection of media.

Administrators and Systems Operators

At the very top of a private site hierarchy are the sites’ Administrators (Admins) and System Operators (SysOps). Admins and SysOps wield ultimate power over a site’s operations. Their roles are largely ‘behind the scenes’ and are concerned with database and server operations, design, and coding. SysOps in particular are those computer experts who are competent in dealing with a large website’s ‘back end’; they perform technical troubleshooting and ensure that a site is able to serve content to its membership. Administrators, who may also be involved in the technical operation of the site, are responsible for dealing with the ‘real world’ elements of running a website. Such responsibilities include ensuring that adequate server space and hosting has been purchased from an appropriate company. Essentially, these are the people who make sure that the ‘bills are paid’ and that a site is operating in a manner that, given the hazy

⁴⁷ Michael Arnold, ‘Theorizing Community and Networks’ (presented at the Community Network Analysis Conference, Brighton, UK, 2004), p. 3
<<http://www.cmis.brighton.ac.uk/research/seake/cna/conference/proceedings/docs/michael%20arnold.pdf>> [accessed 3 August 2012].

legal area in which the sites operate with regards to intellectual property infringement, reduces potential risk to both themselves and a site's members. In most cases, administrators are also the founders of the site; there are usually very few of them and in the case of smaller sites there is often only one administrator.

Little is known about the identities of site administrators and founders, which is something that they go to great lengths to ensure. Indeed, it was not until the take down of SITE G in 2007 that the site's administrator was revealed to be 26 year-old Alan Ellis, a software engineer from Northern England known previously to the membership only by his user name, SITE G.⁴⁸ In fact, it is usually only under such circumstances that anything becomes known about private site operators at all. On occasions when a private site comes under scrutiny by law enforcement, filesharing-focussed news sites will often publish commentary by the principles in question. Such occasions are becoming more frequent given the recent successes of the Swedish Antipiratbyrån and the Immigration and Customs Enforcement Task Force (ICE) task force in the US at bringing lawsuits against public torrent trackers and seizing domain names of piracy-related websites.⁴⁹ One recent example saw the administrator of *XtremeSpeeds* come under suspicion by US authorities, which resulted in a raid on in May 2011. The administrator's limited commentary and denial of allegations of media piracy was quoted on *TorrentFreak*, though his name and location were not offered.⁵⁰ On another occasion in the same month, Swedish police arrested two men suspected of running the private site eXcelleNT.⁵¹ The only information offered by *TorrentFreak* and the Swedish newspaper *Svenska Dagbladet* was that the men were 'in their 20s' and that they had 'made some level of confession'.⁵²

The lack of visibility of private site administrators outside of their activities on the sites themselves is instructive, especially when contrasted with the relative openness

⁴⁸ 'Free Music Site Cleared of Fraud', *BBC News*, January 15, 2010, sec. Tees, <http://news.bbc.co.uk/2/hi/uk_news/england/tees/8461879.stm> [accessed 12 February 2012].

⁴⁹ For examples of Antipiratbyrån activities see 'Arrest Prompts Swedish Filesharing Site to Close - The Local', *The Local*, 3 March 2011, section Science & Technology <<http://www.thelocal.se/32348/20110302/>> [accessed 25 February 2012]; 'Swede Caught with 10,000 Films in File Sharing Raid - The Local', *The Local*, 26 August 2009, section National <<http://www.thelocal.se/21704/20090826/>> [accessed 25 February 2012]. For more on the ICE Task Force see Ben Sisario, 'U.S. Shuts Down Web Sites in Piracy Crackdown', *The New York Times*, 26 November 2010, section Technology <<https://www.nytimes.com/2010/11/27/technology/27torrent.html>> [accessed 25 February 2012].

⁵⁰ enigmax, 'XtremeSpeeds BitTorrent Admin Busted', *TorrentFreak*, 2011, <<https://torrentfreak.com/xtremespeeds-bittorrent-admin-busted-110730/>> [accessed 12 February 2012].

⁵¹ The initial URL xnt.nu now redirects to what appears to be a filesharing-focussed blog. See 'XNT.nu', *XNT.nu*, <<https://xntnu.wordpress.com/>> [accessed 12 February 2012].

of public site owners. Public sites, due to their popularity and accessibility, are under much more public scrutiny from authorities and are exposed to much more public critique from industry groups. This exposure has led to a discursive battle between public site owners and industry representatives. The administrators of the The Pirate Bay, for example, have taken a public and highly vocal stance in their criticism of the media industries, anti-piracy groups, and other issues germane to the politics of freedom of information. They have regularly commented on industry calls to eradicate piracy via tougher laws against intellectual property infringement. Even following the highly publicised trial, which saw the original owners sentenced to prison time, both the new and former operators of *The Pirate Bay* continue to comment publicly.⁵²

Private site administrators do not typically engage in such public discourse. In fact they generally remain silent on these issues. I suggest that the administrators' silence on matters pertaining to the politics of media piracy actually mimics the practices and values associated with private filesharing more generally. I noted earlier that the quotidian nature of the forums and the lack of explicit activist politics on these sites suggests that private filesharing is primarily concerned with the efficient transfer of data amongst a select group of peers as a means to counter the lack of such quality and efficiency that is characteristic of public sites. The priority of efficiency and utility has much greater priority in private filesharing than does the politics that are associated with media piracy, copyright activism, and freedom of information. Indeed, much like BitTorrent inventor Bram Cohen's emphasis on the technical side of BitTorrent, and his general reluctance to engage in commentary about copyright, I'd suggest that private site administrators have a similar perspective: they are less concerned with the politics of information than they are with engineering highly efficient technical means and social paradigms for sharing media. Furthermore, if private sites can be seen as a type of

⁵² enigmax, 'Police Raid 'Excellent' Private BitTorrent Tracker, Admins Arrested', *TorrentFreak*, 2011, <<https://torrentfreak.com/police-raid-excellent-private-bittorrent-tracker-admins-arrested-110526/>> [accessed 12 February 2012]. See also 'Tillslag Mot Misstänkta Fildelare', *Svenska Dagbladet* (Stockholm, 25 May 2011), <http://www.svd.se/nyheter/inrikes/tillslag-mot-misstankta-fildelare_6195889.svd> [accessed 12 February 2012].

⁵³ Recently, *Pirate Bay* co-founder Peter Sunde has spoken out on the practices of the copyright industry. In his typically provocative style he offers that 'Just as with any other mafia, the entertainment industry wants protection money'. See Peter Sunde, 'Pirate Bay's Peter Sunde on the Copyright Mafia', *TorrentFreak*, 2012 <<https://torrentfreak.com/pirate-bays-peter-sunde-on-the-copyright-mafia-120222/>> [accessed 25 February 2012]. While the Pirate Bay was still active, their outspokenness verged often into the realm of spectacle and self-professed performance art, such as when a bus was used to tour Europe in 2003 in order to spread an anti-copyright message. See Ernesto, 'The Pirate Bay Starts Its Summer Tour 2008', *TorrentFreak*, 2008 <<https://torrentfreak.com/pirate-bay-summer-tour-2008-080710/>> [accessed 25 February 2012] and 'S23M - Inna Da Future Wartank', *Piratbyran.org*, 2009 <<http://piratbyran.org/s23m/>> [accessed 25 February 2012].

response to the pitfalls of public sharing, then one of those pitfalls is the exposure that public torrent users and site administrators are likely to receive as a result of the scrutiny of anti-piracy groups and the state. Thus, private sites are designed in such a way as to minimise this exposure—it is difficult for industry groups to track the IP addresses of members or learn anything about the sites unless the site itself has been infiltrated. The complex vetting system of interviews, applications, and invitations are ways through which private sites attempt to minimise the possibility of infiltration. For private site administrators then, security and privacy are major concerns if the sites are to succeed at mitigating the potentially corrupting aspects of public sites.

FUNDING

Private sites generally fund their operating costs through member donations, though there are a few exceptions, such as SITE D, which runs an ‘affiliate’ program. This is in contrast to public sites, which almost uniformly employ some sort of advertising in order to cover costs and sometimes even to profit. Along with the ratio, which I discussed earlier, this major difference between public and private torrent sites is very important to highlight since it reveals a very different approach to the valorisation of members’ contributions to the sites and to filesharing more generally. Public sites also rely on the active contributions of their users to upload and download torrents. However, through advertising, they suture this participation to a logic of audience commodification that valorises the users as a site of revenue and, potentially, profit. Therefore, in Chapter Six, I theorise private sites as a form of refusal of audience labour since they appear to reject the commodification of audiences’ capacities to share, comment, and consume media. Instead, members’ contributions are valorised in the increased utility of the site. This utility is a direct result of members’ continuous seeding of torrents, contributions of new material, participation in editing and tagging torrent pages, and in their communications in the discussion forums and not as a means to cover operational costs or potentially profit. Eschewing advertising, private sites must then find other ways to continue to pay for the operational costs of the sites, and they do this largely by appealing to their members’ willingness to support the sites financially. In what follows I offer details about how the donations process works and some of the debates that surround its practice. The discussion notes the variety of different approaches to soliciting donations and the variety of different perspectives that

members have about the practice. I further highlight the complexity and heterogeneity of media piracy by demonstrating the difficulties of engaging in piratical practices that are at once fully embedded within capitalist social and economic relations while at the same time antagonistic toward these relations.

Typically there are two primary donation scenarios on private sites. In the first scenario, members donate and receive nothing (maybe an extra invitation) in return but for some kind of positive graphic indication on their user profile—for example, a heart, a star, smiley face, money bag, or dollar sign. In the second scenario, which is much more common, members are rewarded in a variety of ways. In exchange for their donation they may receive additional invitations, access to restricted site features, immunity from their account disabled, or upload credit that counts toward their overall ratio statistics. The first scenario might be described as an altruistic one, in which members voluntarily choose to help the site cover their operating costs in exchange for knowing that they had a small part in contributing to the site's continued existence. Of the sites taken up in this thesis, only SITE F and SITE E operated in such a manner. A commenter at SITE F summed up a commonly-held position of members of that site: 'I've been a member here for over 4 years and it's easy to tell how much the admins and users care about the community that's been established. I'm gladly willing to help out with a donation ... I feel it's the absolute least I could do to say thanks'. SITE F asks that donors 'be aware that by making a donation you aren't purchasing donor status or invites' and notes that in return for a donation a member will receive only 'our eternal love' and 'a warm fuzzy feeling'.

The second scenario, in which members donate in exchange for a reward, is much more common. This scenario extends the logic of incentives that characterises most aspects of private sites. Examples of such incentives are numerous and range from modest single donation rewards to highly complex reward systems. The most common incentive is for a site to offer upload credit in exchange for donations. This means that in effect members are purchasing the ability to download more media without having it count negatively against their ratio. Most sites have a graded scale of predefined donation amounts that correspond to predefined upload credit amounts. For example, donors at SITE C receive for 5 EUR (the low end of the donation scale) 3GB extra upload credit, and for 100 EUR (the high end) they will receive 150GB credit. There are donation levels of 10, 20, 30, and 50 EUR in between. At SITE N, for a donation of 2 – 125 EUR donors receive anywhere from 15GB to 2TB of credit and at SITE B,

US\$5 – 100 donors receive 5 – 65GB in exchange. In addition to upload credit, donors may also receive other ‘perks’. At SITE C donors are immune from having their accounts banned due to inactivity and they receive access to restricted forums; at SITE N donors are immune from being warned and banned for ‘hit and run’ activity, which as I noted earlier is usually discouraged in private filesharing because of the need to maintain the share ratio. SITE B, which uses a two-tiered donation system that includes both one-time and monthly donation ‘subscription’ options, offers its incentives accordingly: any immunities, increased access, or upload credit, is given at the time of donation or for each month that the donation subscription lasts.

These donation paradigms are similar in many ways to the subscription options that characterise legal online music distribution. *Spotify*, *Pandora*, *Rhapsody*, and others each offer their users enhanced features in exchange for monthly subscription fees. This is what Patrick Burkart and Tom McCourt refer to as a coming ‘pay-per-society’, in which access to media will take the form of a contractual relationship in which users will more likely ‘rent’ access to music and video than they will purchase a media commodity.⁵⁴ However, I note above that private sites appear to valorise their members’ labour in the increased utility of the site and not through advertising. This valorisation is not negated by the donation paradigm because the donations are just that, voluntary contributions of money to aid in the continuance of a site’s existence. Even if they do not choose to donate, members are still able to use most of the site’s features: access to extra invites, previously restricted forums and IRC channels do not have any measurable impact on a member’s ability to participate in sharing media and communicating with other members. These incentives are ‘extra’ in every sense: they augment the experience without affecting the core usability of the sites. In contrast, the subscription services of legal online distribution generally offer services with only limited capabilities until a user consents to a subscription, at which point they gain access to full functionality. For example, *Spotify*, a Swedish music streaming service limits its service to only ten hours of listening per month, and users can only play a single track five times in total. These limits can be avoided only if the user purchases a subscription.⁵⁵ Additionally, *Spotify* users, like almost all users of legal streaming services are subject to advertising, which reifies them as audience commodities—the

⁵⁴ See Patrick Burkart and Tom McCourt, ‘Infrastructure for the Celestial Jukebox’, *Popular Music* 23, no. 3 (2004), 349–362 and Patrick Burkart and Tom McCourt, *Digital Music Wars: Ownership and Control of the Celestial Jukebox* (Lanham: Rowman & Littlefield Publishers, 2006). I take up the ‘celestial jukebox’ and the ‘pay-per-society’ detail in Chapter Six.

very act of listening to music or consuming media itself commodified through the sale of information about users to advertisers. I take up the 'pay-per-society' along with the concept of audience commodification and labour in Chapter Six, in which private sites appear as a form of refusal of such commodification.

The above sites do not tend to solicit donations beyond the links that are featured on the post-login homepage. Users are not 'nagged' or pressured to donate, though I will note below one instance in which a site pleaded with members for their financial help. The homepage link directs members to a page that includes instructions on how to donate to the site, a link to some form of online payment service, and an explanation of the site's need for donations. For example, SITE C notes that, '[t]his site is only here because of the generous contributions from our members. Without donations, we simply wouldn't be here. We don't have any advertisements or sponsorships, nor do we sell anything', while SITE F explains: 'Because we do not have any advertisements or sponsorships and this service is provided free of charge, we are entirely reliant upon user donations. If you are financially able, please consider making a donation to help us pay the bills!' It is rare that a private site will report on how much money it receives from donors, or how many of the membership actually donate, though some will feature a graphic that indicates how close a site is to its monthly donation goals. I will take up this lack of transparency more below.

One of the sites that does offer some statistics is SITE F, which the reader will recall offers no incentive for users to donate; there are no rewards, extra upload credits, or immunities offered to its donors. As of January 2012, a time when the membership stood at over 150,000, a total of 22,081 members had donated to the site over the 4.5 years since it began operations in late-2007. Table 5-8 shows what percentage of each user class had donated.

⁵⁵ Stuart Dredge, 'Spotify's Free Music Service Now Limited to 10 Hours Per Month', *CNET UK*, 11 April 2011, <<http://crave.CNET.co.uk/digitalmusic/spotify-free-music-service-now-limited-to-10-hours-per-month-50003511/>> [accessed 12 February 2012].

Table 5-8. SITE F, donations, percentage of each user class.

User Class	Percent of class that donated
User	3.8%
Member	13.8%
Power User	21.9%
Elite	34.3%
Torrent Master	59.0%
Power Torrent Master	42.1%
Elite Torrent Master	43.8%
Delta Team	44.8%
VIP	44.4%

There are a variety of reasons why members in the higher user classes tend to donate more. One reason may correlate to the amount of time one has been a member. To reach a higher user class it is likely that members will have to spend a great deal of time on the site and come to recognise the site's value as a resource for music. They may then choose to donate based on their positive experiences with the site. A similar logic may account for the lesser percentage of donors from the 'User' and 'Member' classes: they may not yet have spent enough time on the site to justify to themselves the offer of a donation. Of course, the motivations for each individual donor are largely unknowable. However, in the unique situation I describe below, the debates that followed SITE F's appeal for donations did in fact reveal a variety of perspectives and reasons that individual members held for their decisions to donate or not.

SITE B also made monthly donation totals available to the membership, but stopped the practice in recent years. No reason was offered by the site. From February 2006 to mid-October 2010 the site collected a total of US\$213,303, an average monthly total of US\$3,742. The site also used to post the individual donation amounts for whatever the current month was. Between 1 - 17 October 2010, 110 members donated in the following denominations: US\$5 = 16 members, US\$10 = 37 members, US\$20 = 39 members, US\$50 = 18 members. Though the monthly statistics are no longer provided, at the time of writing the site still posts its monthly donation goal as US\$2,500. During this 4.5 year time period, there were three months where donation totals were unusually large: September 2007, US\$10,300; December 2007, US\$15,435; and March 2010, US\$12,010. With the exception of these large amounts, monthly donation totals were typically in the range of US\$2,000 - 5,000. Currently, the site has

around 16,000 active members, and it most likely had far fewer members in 2006. Even if each of the current members were a donor, he/she would only have donated around US\$13 each.

I include these statistics because they are some of the only details available about the ‘demographics’ and amounts of donations on private sites. They are instructive because they show that (a) not everyone donates, in fact donors make up a very small percentage of the total membership; (b) this small percentage appears to be ‘enough’ since both sites (and many other private sites) continue to operate even after half a decade of existence; (c) the amounts, though in total seem large, are small when spread across the membership, and; (d) no matter how one analyses these statistics, the ‘cost’ to donors for access to these vast music and media catalogues is minuscule compared to the costs of paying a monthly subscription fee to a legal streaming service, or the cost of paying for each single song that could be downloaded.

Like many other online commercial and non-profit entities private sites have typically used PayPal, the most popular online payment service, to administer their donations. However, some sites have recently stopped using the service and have instead shifted to using Flattr, a ‘micropayments’ service founded by Peter Sunde of The Pirate Bay.⁵⁶ The impetus for some private sites to switch from PayPal to Flattr has occurred largely because recent collaborations between PayPal and industry groups in an attempt to ‘choke’ the funding of groups that are said to be linked to copyright infringement. There has been a subsequent chilling effect that has run through the filesharing world as result of these efforts and *TorrentFreak* links these directly to the 2010 ‘withdrawal of service from *Wikileaks* by Mastercard and PayPal’ which demonstrates that ‘pressure applied in the right places by the right people can have powerful results’.⁵⁷ Lest this be thought of as conspiratorial speculation on the part of torrent site operators and the filesharing blogosphere, The International Federation of Phonographic Industries’ website further elaborates on their reasons for seeking partnership with payment providers: ‘We knew that when illegal online music services could no longer take payment from credit cards they would try to work around the restriction. That is why we and the City of London Police approached PayPal and [...]

⁵⁶ See ‘Support - Flattr.com’, *Flattr*, <<https://flattr.com/support/faq>> [accessed 12 February 2012] and Julian Benson, ‘Q&A: Peter Sunde on How to Flattr Content Creators’, *Wired UK*, 2011, <<http://www.wired.co.uk/news/archive/2011-08/31/peter-sunde-qanda>> [accessed 12 February 2012].

⁵⁷ enigmax, ‘5 Anti-Piracy Strategies Designed to Hurt Torrent Sites in 2011’, *TorrentFreak*, 2011, <<https://torrentfreak.com/5-anti-piracy-strategies-designed-to-hurt-torrent-sites-in-2011-110102/>> [accessed 12 February 2012].

they responded instantly and positively'.⁵⁸ A SITE F administrator further confirmed that site's decision to migrate from PayPal to Flattr was a result of these collaborations, which were ultimately the root of problems that SITE F was having with its PayPal service:

Being a private torrent site, we don't technically do anything illegal. However, not everyone agrees with this sentiment – especially, for some reason, payment transaction sites when the IFPI gets involved. Since August, our donations have been down for much longer than they've been up, due mainly to payment providers caving to the demands of the IFPI. As you might imagine, it's been a nervewracking [sic] time for us, and we've only been surviving by delving deeper and deeper into our savings.⁵⁹

The strategy of 'choking' pirate sites at the point of payment processing shares a great deal with attempts by states and industry to suppress dissent in other online arenas. As the *TorrentFreak* article notes, a similar strategy has had an ongoing negative effect on *Wikileaks*' operations; the infamous whistle-blowing site had its revenues cut by approximately 95% since the beginning of the 'banking blockade' in 2010 and by late-2011 had ceased publishing and instead focussed on raising funds.⁶⁰

Blocking payments is a relatively new strategy in the media industries' anti-piracy efforts. It augments more established strategies that have used existing juridical means to combat piracy. Since the early days of Napster, lawsuits against individuals and organisations have been the primary way that industry and governments have tried to contain piracy. However, juridical means have proven to be largely ineffective at stemming the flow of illicit copyrighted material online. Lawsuits seem only to have caused immense stress to individuals, sometimes leading to prison, heavy fines, and protracted legal battles. Legal action against software providers and websites have seen

⁵⁸ 'PayPal Works with Police and Industry to Tackle Copyright Infringing Websites', *International Federation of the Phonographic Industry*, 2011, <http://www.ifpi.org/content/section_news/20110721.html> [accessed 12 February 2012].

⁵⁹ Ernesto, 'SITE F Hurt By Dwindling Donations', *TorrentFreak*, 2011, <<https://torrentfreak.com/SITE-F--hurt-by-dwindling-donations/>> [accessed 12 February 2012].

⁶⁰ 'PayPal Cuts Access to Wikileaks', *BBC News*, 4 December 2010, sec. US & Canada, <<http://www.bbc.co.uk/news/world-us-canada-11917891>> [accessed 12 February 2012]; 'Visa Suspends Wikileaks Payments', *BBC News*, 7 December 2010, sec. Business, <<http://www.bbc.co.uk/news/business-11938320>> [accessed 12 February 2012]; Declan McCullagh, 'MasterCard Pulls Plug on WikiLeaks Payments', *CNET*, 6 December 2010, <http://news.CNET.com/8301-31921_3-20024776-281.html> [accessed 12 February 2012]; Esther Addley and Jason Deans, 'WikiLeaks Suspends Publishing to Fight Financial Blockade', *The Guardian*, 24 October 2011, sec. Media, <<http://www.guardian.co.uk/media/2011/oct/24/wikileaks-suspends-publishing>> [accessed 12 February 2012].

a few cease operation only to be replaced, sometimes literally overnight, by other more robust sites. It should come as no surprise then that, failing to succeed within the boundaries of existing law, profit-seeking media industries would turn to profit-seeking payment providers such as credit card companies and online payment providers as private sector collaborators in an effort to threaten piracy at one of its most vulnerable points--its ability to sustain operational costs in the form of hosting fees, server costs, and bandwidth. Such collaborations appear as a clear example of capitalist class interests combining in opposition to a form of dissent that threaten the foundations of its power. The collaborations highlight capital's capacity to take advantage of chilling effects in order to limit the possibilities of conceptualising and actually realising alternative means for the distribution of information. Though the information shared by pirates and by *Wikileaks* may differ in certain aspects, both forms of dissent are subject to brutal forms of suppression. The principle actors of many pirate sites have been arrested and charged, as was Julian Assange, *Wikileaks*'s founder (though on disputed and unrelated charges), and sites suspected of piracy are choked at the level of payment, as was the case with *Wikileaks*.⁶¹ It is also no surprise that, fearing that the site may in fact be seized by authorities, *Wikileaks* had released and encrypted version of what is presumed to be the contents of US diplomatic cables through public BitTorrent sites as a form of 'insurance'.⁶²

In fact, so little is known about how much money actually accrues from donations that it is difficult to claim with certainty that the sites are entirely non-profit, though they do not typically valorise their members through advertising as a means to gain revenue. The investigation that followed the raid of the home of the founder of SITE G revealed the difficulties in ascertaining detailed and accurate information about private torrent sites' finances. This could be a result of investigators misunderstanding the nature of the site or a result of sophisticated security provisions put in place by the founder himself. Either way, the mainstream media reports that followed the investigation are contradictory at best. For example some sources reported that over the lifetime of the site approximately US\$300,000 had passed through several PayPal

⁶¹ 'Wikileaks' Assange Refused Bail', BBC News, 8 December 2010, section UK <<http://www.bbc.co.uk/news/uk-11937110>> [accessed 26 February 2012].

⁶² See Lynn Herrmann, 'WikiLeaks Insured from Gov't Intrusion? Assange Talks', Digital Journal, 5 August 2010 <<http://www.digitaljournal.com/article/295597#ixzz16PdfV00>> [accessed 26 February 2012] and Julian Assange Responds to Increasing US Government Attacks on WikiLeaks (Democracy Now, 2010) <http://www.democracynow.org/2010/8/3/julian_assange_responds_to_increasing_us> [accessed 26 February 2012].

accounts to which the founder had access while others reported that he was in possession of the full sum at the time of the raid in October 2007; most reported that this sum was due to SITE G's practice of 'demanding a £5 fee to invite a friend to the site'.⁶³ In fact, as with the sites above, any money had only ever been voluntarily offered by members, and invites were attainable in other ways, such as by progressing through user-classes. Errors made in the mainstream reports were highlighted in several filesharing news sites and blogs.

One of the most closely guarded elements of private filesharing is how much it actually costs to run a site. Few private sites are forthcoming with their costs, and they almost never provide any reports about the amount of donation money they receive. This is a matter of some debate amongst members, whose opinions on the matter range from general curiosity to outright demands for transparency. I will address members' perspectives on donations shortly. Since the sites are so secretive, the costs associated with operating a private torrent site can only be estimated. StoreTheNet, a site less than 1/20th the size of SITE F or SITE E, had total monthly expenses of nearly US\$1200; high capacity web hosting packages at some larger providers can alone cost nearly US\$1300 per month.⁶⁴ It has been argued that *The Pirate Bay* costs around US\$120,000 per year to operate while torrent site administrators that were surveyed by Joe Karaganis reported that, depending on the size of the site, costs could be anywhere from US\$3,000-30,000 per year.⁶⁵

Such speculations make for heated discussions in the forums at private sites. In December 2011 SITE F took the unusual step of appealing directly to its membership for donations. This is a rare occurrence at private sites, which usually limit their solicitation to a persistent link to the donations page. SITE F noted that limited

⁶³ Sean Michaels, 'SITE G Founder Had £190,000 in His Piggy Bank', *The Guardian*, January 8, 2010, sec. Music, <<http://www.guardian.co.uk/music/2010/jan/08/SITE-G-founder-piggy-bank>> [accessed 12 February 2012].

⁶⁴ See enigmax, 'Private BitTorrent Trackers Commit Suicide With Rising Costs', *TorrentFreak*, 2009, <<https://torrentfreak.com/private-bittorrent-trackers-commit-suicide-with-rising-costs-091214/>> [accessed 12 February 2012] and '1Gbps Unmetered Dedicated Server Series - LeaseWeb', *LeaseWeb*, <<http://www.leaseweb.com/en/dedicated-servers/1gbps-unmetered-servers>> [accessed 12 February 2012]. *LeaseWeb* was chosen because its clients have been associated with media piracy and the distribution of computer viruses. See Andre Yoskowitz, 'BREIN Forces Web Hosting Company to Close Torrent Site', *AfterDawn*, 2007, <http://www.afterdawn.com/news/article.cfm/2007/06/21/brein_forces_web_hosting_company_to_close_torrent_site> [accessed 12 February 2012] and 'Dutch Government Shuts down Bredolab Botnet', *InfoSecurity*, 2010, <<http://www.infosecurity-magazine.com/view/13461/dutch-government-shuts-down-bredolab-botnet>> [accessed 12 February 2012].

⁶⁵ Joe Karaganis, 'Meganomics | Media Piracy | The American Assembly', *Media Piracy in Emerging Economies*, 2012, <<http://piracy.ssrc.org/meganomics/>> [accessed 12 February 2012].

donations, disruptions in the donation system created by the collaboration between the IFPI and PayPal, meant that for some time the site had been funded largely out of the private savings of the site's operators. A post on the site's homepage 'news' section declared the following:

SITE F's monthly bills are massive, and this excludes the additional costs of new servers, upgrades and snags in the road. It was once possible for us to tap into reserve funds during donation droughts, but this was before our costs ballooned with an exploding population, increased bandwidth demands and the loss of a convenient donation service. Our reserves are rapidly running dry, and now we appeal to you - our community.

The site's explanation included statistics about the current state of the membership (150,000 at the time of the post) and the number of torrents (1,250,000); it also placed the responsibility for creating the 'world's *best*' (emphasis in original) private torrent site squarely at the feet of the membership as a whole:

our community is now one of the most articulate and passionate in the BitTorrent world. All of us—together—have accomplished this feat without remaining closed-off and cold toward outsiders, but perpetually open to anyone wanting to help this music repository approach perfection.

As if borrowed from the rhetoric of other 'grassroots' pleas for charity, such as public television fund raisers in the US, SITE F placed emphasis on the membership's agency in making the site what it had become and used this as a means to springboard to the final direct request: 'We ask anyone who can spare the money to please donate to SITE F in the immediate future. Any donation (small or large) will make a dent in our bills. This money will help ensure SITE F's continued survival'. The site added to its plea for donations the option for members to purchase a SITE F-branded 'koozie', which is a neoprene sleeve that wraps around a beer bottle in order to keep the beverage cold. The koozie cost US\$5 and the proceeds from each sale would go toward the site's operational costs. A lengthy and at times heated discussion followed in the discussion forums. The discussion touched on points related to individuals' reasons for donating, or not, and issues of transparency related to the site's bookkeeping and financial practices. A sample of these are given below.

Many participants indicated that they would be more than willing to heed the

call to donate if only they were given some indication of the site's monthly operating costs. One member noted that 'While I once again donate gladly :), more transparency when it comes to these donations wouldn't hurt. Not that there have been many of these kinds of posts urging us to donate, but wouldn't some kind of running information on the economic status of the site help keep things more stable economy-wise?'. This sentiment was echoed in another member's comment, which made the link between SITE F's plea and the legal responsibilities of legitimate charities to have transparent bookkeeping:

As much as I'd love to donate, as I've said before, I do not feel comfortable doing so without any financial transparency whatsoever on SITE F's part. I think you would get much more fervent financial support if users could reconcile donations vs. costs themselves, rather than relying on periodic pleas from the administration. There's a good reason that 'legitimate' charities are expected to operate in this manner, and while on the dark side of 'legitimate', SITE F is attempting to portray itself as an ad-hoc non-profit organization. As a conscientious donator [sic]without a lot of money to spare, I feel I must do my due diligence before parting with it, whether it's going to a charity, beloved torrent tracker or friend in need.

Many other participants echoed the first point, which is that the site may actually encourage more donations if more information is made available to the membership so that they can weight for themselves whether or not to donate. However, the latter point seems to reinforce the economic rationality of charitable giving as part of the broader issue of spending and substitution, in which those with limited funds—such as the student-aged filesharing demographic—need to make calculated choices about what to do with the little disposable income they might have. Such calculations I suggest also echo the types of calculated moves made when engaging with ratio requirements, where members are constantly weighing how much to download against their ability to seed and making decisions based on the 'risk' of jeopardising their accounts. In the case of the donation, members appeared to simply want some kind of guarantee that their donation was 'actually' helping the site and not potentially going toward the personal financial gain of the operators. There is good reason for private site members to be skeptical of the site owners' motives. In 2010 staff at SITE A, a site of the stature of SITE F which focusses on film, revealed to the membership that they had been deceived

by the site's founder who had absconded with untold amounts of donation money. The staff complained of never having been included in the accounting for the site, and of having been brushed off by the founder when they had raised concerns.⁶⁶ Though SITE A recovered from the theft of the donation money, stories like this travel far and wide through the filesharing blogosphere. As the *FILENetworks Blog* noted 'Any kind of controversy related to donation money is never a [sic] good news for a torrent tracker (public or private)'.⁶⁷

Several other participants took umbrage to the resistance and questioning of the benevolence and veracity of SITE F's administrators. 'I am shocked at people who don't feel comfortable donating', offered one member:

[y]ou're comfortable d/l'ing torrents and here you are getting everything you always wanted, that you are ok with. My point is, we ALL need to give a little something as we've been taking (and taking) for years. This is a community! Give back what you can, beg for some change, ask your friend to loan you a bit, take it from your mom's purse.

These sentiments were echoed by another who said, 'IMHO, it's silly to ask for some sort of balance sheet. The people that run this site obviously aren't in it for the money and they don't even get paid'. It is simply impossible to make either of these claims since there is no evidence anywhere on the site that this is the case. There is also no evidence that this is not the case either. The problem with making demands for transparency in the form of a donation 'progress bar' or documentation of site expenses were further highlighted by a member who noted that '[t]here's nothing about a donation bar or visible percentage that's going to make SITE F's staff more trustworthy. You either think they are trustworthy (I do) and donate, or you don't'. What this member's comments indicate, as I noted above in the discussion about power structures and hierarchies, is the important role that trust plays in private sites. The importance of trust is only magnified when it comes to money and donations because members appear either all too willing to part with money in exchange for ostensibly helping the site or they are cautious about the motives of the site's operators. Even if the site were to post a progress meter or documentation there is no indication that these would be accurate or verifiable by the membership—a graphical representation could hardly be considered

⁶⁶ TEAM FILENetworks, 'SITE A Is Not Down – Site Has Moved To A New Domain', *FILENetworks Blog*, 2010, <<http://filenetworks.blogspot.com/2010/05/SITE-A-is-not-down-site-has.html>> [accessed 12 February 2012].

⁶⁷ *Ibid.*

‘proof’—and would only, as one member noted, ‘lead to requests for even greater transparency’. Because private sites, unlike legitimate charities, are not bound by any laws that would require them to be open about their bookkeeping, there is no mechanism for ensuring the legitimacy of anything the site’s might present as ‘evidence’ for the need for donations.

SITE F administrators were adamant that they would not offer incentives for donors, even though many of the members who took part in the discussion suggested that donations for upload credit would be one way for the site to increase donations. As the discussion progressed, the original post with the appeal was updated with generalised information from the site’s staff. On the matter of donations and upload credit, the site offered the following:

This will never happen. Aside from the package of donation benefits for initial donors, we will never further incentivize donating by allowing users to artificially alter the site’s economy. While we’re happy to offer cosmetic upgrades like the introduction of a personal collage, and the hopefully helpful ability to invite two friends, we’re very proud of our ratio rules. We will not let users buy success on the site.

Even under financial duress, SITE F was more concerned with upholding the ideologies of sharing, contribution, and reciprocity that they saw as foundational to the site’s success. They were mounting a principled argument that seemed to reinforce the rhetoric of the original appeal. What is interesting here is that those sites that do offer upload credit in exchange for donations typically have much poorer media selections, smaller membership, and less sophisticated means for searching and finding media.⁶⁸ The possibility of purchasing upload credit seems to have a negative impact on the sites viability as a desirable source for pirated media at the very same time that those donations more or less guarantee that the site can continue to exist. SITE F, and SITE E (which, like SITE F, offers minimal incentive and no upload credit in exchange for donations) succeed at building community-driven diverse selections of media, but always with the risk that they will not be able to cover their operating costs.

⁶⁸ For example: SITE F offers no credit in exchange for donations but which tracks over 1 million torrents, with a membership over 150,000 and a highly sophisticated content managements system. SITE B does offer various types of credit, and according to FILEnetworks Blog indexes around 50,000 torrents, has a (capped) membership of around 25,000, and utilises a fairly basic keyword search. See TEAM FILEnetworks, ‘SITE B Signups Open – 10000 New Members To Be Recruited’, FILEnetworks Blog, 2011 <[http://filenetworks.blogspot.com/2011/04/SITE B-signups-open-10000-new.html](http://filenetworks.blogspot.com/2011/04/SITE-B-signups-open-10000-new.html)> [accessed 26 February 2012].

Here then, the ambivalences of private BitTorrent privacy are in full relief. Private BitTorrent filesharing is a system of organisations that reject capitalist economic relations and laws in one realm—the realm of copyright. But the consequence is that the rejection of one legal framework also means that in practice they reject others, too, such as those that would require financial transparency. Members support these rejections by participating in the sites, by sharing media, communicating, and donating. In so doing, the values of community, autonomy, and obligation are reinforced. Members are caught in a bind: demands for some kind transparency would require some type of enforcement paradigm that would seem all but impossible without the site having to sacrifice the whole logic of autonomous and free distribution of cultural production by submitting to other laws, such as those of copyright. The choice to donate then really does come down to a calculation about whether or not one supposes he/she is getting good value or whether or not he or she ethically or morally objects to the possibility that the site's operators may seek to profit. Moreover, any ethical or moral considerations are then extended to the role of money more generally on a private site, and whether or not one might see the presence of incentives as corrupting the values of obligation and reciprocity that have made a site such a desirable place to be in the first place, even though these incentives might ensure that the site continues to exist.

Debates about donations thus reveal something even more basic about piracy's attempts to mount an exodus from the capitalist media industries. They reveal that any such exodus is only partially attainable. This is because any activity online no matter how radical must engage with the technical infrastructure of the Internet, which is almost entirely subsumed within capital. Servers, web hosting, and bandwidth are all fully commercialised. Even though private sites are particularly adept at the creation of an autonomous space for distributing music, video, and software that mitigate the negative aspects of openly accessible public sharing, such as technical corruption and inefficient file transfers, this achievement can only go so far. By rejecting the audience commodification that underwrites the openness of public sites, private sites create a situation whereby they must seek alternate funding; in so doing the limits of their autonomy from capital are more starkly revealed to the membership. A membership that self-reflexively examines its own politics regarding issues such as trust and transparency has the potential to undermine a site's ability to continue operations. If members consistently choose not donate out of scepticism about a site owner's motives then a private site is placed in a position where its attempts to challenge capitalist modes

of media distribution and emergent paradigms for audience commodification are potentially foreclosed by the membership's reluctance to provide funding for such challenges.

SEARCHING AND FINDING

The main reason for pursuing and gaining access to a private site is naturally to download high quality media, and most of this media is copyrighted. Power structures, status and the intrigues of funding are all quite secondary to this primary purpose. In many ways private BitTorrent sites can be seen as a means for remedying some of the problems raised by searching on public sites. While keyword-based title searches are still the norm, more refined advanced search possibilities are a common feature of private sites and are one of the major factors that attract filesharers to them. Most private sites feature much more detailed subcategories for music, film, and software genres than those found at public sites. For example SITE E, which specialises in music, ebooks, and software, features over seventy different musical genre categories. Its search field accepts Boolean operators (i.e. additional search terms that allow for further specificity in searches such as AND, OR, +, and -), and various other useful symbols can be used to further refine searches. A 'power search' option is available to those members who have reached 'Power User' status, who have donated to the site, or who have 'purchased' access through the use of their points in the site's 'shop'. SITE B is similar to SITE E, but because the site also trades in video, searches must be specified by media type via a dropdown list that includes subcategories for music, TV shows, and so forth. At SITE B members can also choose whether or not to search for a term in the title of the torrent or in the description of that torrent, which can be useful in finding personnel, directors, actors, or terms in plot descriptions or track titles, and anything else that might appear in a torrent description and not in its title.

SITE F employs a slightly different strategy where, in addition to keyword searches, users can also search a database of artists. The 'artists' search field uses instant predictions based on the first few characters that are input into the field, and returns a drop down list of up to ten artist results based on this match.⁶⁹ SITE F's advanced search options are the most highly developed among private music trackers. The sophistication

⁶⁹ It is not immediately evident how these ten results are determined. A test search for 'the' suggests that they are the most popular terms searched/most torrents shared, since the list of results included The Beatles, The Rolling Stones, The Who, The Roots, The Notorious B.I.G., each of whom have many torrents shared on the site.

of SITE F's site is something that is a result of the 'Gazelle' content management system, which was created as an open source torrent tracker software 'suite' by volunteer members of the SITE F community beginning in early 2008.⁷⁰ Gazelle allows users to refine searches based on release year, catalogue number, bitrate and media type, record label (and subsequent remastering or re-release label) and many other categories. Like most private sites, and some public sites, there is also an elaborate tagging system in which members can continuously add tags to search results in order to further refine and categorise media. All of these additional options and greater specificity create a more efficient means of finding shared media than that which is available at most public sites.

The search results page at SITE F further differs from those of other private sites. Typically, a search result page at most private sites will return all of the torrents that contain the search term in their titles. This means that if, for example, there are several versions of a particular album in different file formats (FLAC, MP3s of varying bit rates) there will be a corresponding entry for *each* of these in the search results list. If there are many versions, then this can result in a rather unwieldy list of results that users, if they had not used additional search operators, must then sift through 'manually' in order to find the desired media in the format of their choice. Clicking on a torrent's title will direct the member to the torrent page and from there they can download the actual torrent file. Usually there are also links that can be clicked in order to download the torrent file directly from the search result list. In contrast, the Gazelle system at SITE F offers a results list that contains only entries for specific albums whose titles or artists contain the search term. The results list is hyperlinked in several different ways: clicking on a particular album's title will direct the user to a torrent page that contains links to the torrents for all of the different formats in which the album is shared, if they are available; clicking on the artist's name will link to the 'artist page'; and clicking on the '+' or 'expand' sign to the left of a search result will reveal a list of the various formats available for the album. Further clicking on one of the formats will take the user to a more detailed information page, or the member may also click a link that will download the torrent file directly from the search result page. All of this has the effect of streamlining torrent search results and offering the user a certain amount of granular control over how information is presented and searches are conducted. In the end, this means that a user does not have to wade through several pages of what appears at first

⁷⁰ 'Project Gazelle :: Project Gazelle'; Ben Jones, 'A Sneak Peek at SITE F's Project Gazelle'.

to be duplicate content, as is typical at most private sites but which is in fact a list of differing formats. The Gazelle CMS centralises torrents based on the album or 'release', and thus makes working with search result pages more efficient.

Torrent and Artist Pages

Where private sites' paradigms for searching and finding truly excel in comparison to those of the public sites is in the torrent pages themselves. As I noted in the discussion of public sites, the torrent 'page' is the page the user sees after they click on an entry in a list of search results. On a public site these pages are usually very simple. They will, of course, include a link to the torrent file. They usually also feature the screen name of the uploader (with a link to his/her profile page or list of torrents uploaded), some detail about the title of the torrent, the media file type, the current number of seeders and leechers, and perhaps a date of release or upload. All of this information is either automatically populated, such as the username, or will be at the discretion of the user to provide. There will usually also be a space in which the uploader may have included some more details such as track/file lists, personnel, reviews, and so on. On most public sites, save for the requirement of a torrent title, there are usually no rules that require uploaders at public sites to provide much detail. As I noted in Chapter Three, torrent pages also have a place where users can leave comments, themselves an important means for public site users to determine the legitimacy and quality of the torrent's media content.

On private sites the torrent page is typically much more detailed and this is largely because at the time of upload there are a variety of different fields in which members are expected, and sometimes required, to enter data about the torrent they are uploading. This data might include the year of release, the title of the upload, the record label or studio, catalogue number, format of the original release and the format uploaded, cover graphics, and an open text field for providing a track listing, personnel, and other details. As with public sites, in most cases torrent pages on private sites are dedicated to one particular torrent, meaning that even if there are several formats available of a particular media, each will have its own dedicated torrent page. An important exception here is the torrent page at SITE F, which features links to torrents for each of the file formats a particular torrent is shared in with only one corresponding page of details that refers to all of the torrents for that particular release. The SITE F torrent page is innovative among private sites because it centralises information in a

highly useable page that features the information field, cover graphics (if provided by the uploader), a comments field, and opportunities for users to enter tags and additional artist information.

SITE F further excels in the use of a unique 'artist page'. In a typical private site artist-specific searches are usually performed by linking an artists name (on the torrent page) to a Boolean-defined search for that artist: this means that clicking on the 'more from this artist' link in SITE E, for example, returns a new search results page with torrents only by that artist. An artist search page for Pearl Jam would be generated via a link that simply populates the search field with the term 'artist_full:'Pearl Jam'. In appearance and utility, the page is identical to that which is returned for any keyword search. At SITE F the artist page is much different in that it is a centralised dedicated page that presents a variety of information about that artist and all of the torrents that are currently available to download by that artist. For example, an artist page will feature links to the torrents and torrent pages for all albums, bootlegs, live performances, anthologies, compilations, or soundtracks, or anything else that a specific artist has had a hand in creating. Each of these media types presented as an expandable subcategory that, until clicked, remains hidden; such a design lacks clutter and is and easy to navigate. In each of these subcategories, one will find torrents of varying formats for each recording, and instead of being presented as a bewildering list of all torrents, only the album title is displayed and a further click reveals the various formats that are available for sharing, as was the case in the general torrent search described above. Additionally, the page will feature a list of 'requests', which have been made by other members who are in search of a particular recording or file format that is not currently available on the site.

Another unique feature of the SITE F artist page is the 'similar artist map', which is a visual representation of links between the currently viewed artist and other related artists. Much like a family tree, this visual folksonomy places the currently viewed artist at the centre with lines connecting the artist name to other artist names: the longer the line and the smaller the font of the related artists, the more distant the relationship. Each of those artist's names is itself clickable and directs the member to another artist page. The 'collector' feature is also one of SITE F and Gazelle's signature innovations. The collector is a form of 'one stop shopping' that allows members to download an entire collection of torrents with one click. Before doing so, one can filter the collection by file type and quality. The resulting collection of torrent files is

downloaded as a compressed .zip file that the member can open and select which torrent files to open with his/her client. The collector feature adds efficiency to the downloading process because a member no longer has to surf through what can sometimes be hundreds of torrent pages in order to download complete collections of an artist's work. The artist page also lists the various tags associated with an artist. Tags can range anywhere from genre and style descriptors to city names (for recordings of live appearances), from record labels to eras and decades. Finally, the artist page displays some aggregate statistical information about the artist's torrents: number of groups (i.e. the total number of different groupings of torrents—by album, soundtrack, live recording, etc.); total number of torrents (i.e. the contents of each group); number of active seeders; number of active leechers; and number of 'snatches' (i.e. the total number of times that torrents by this artist have been downloaded). In what follows I offer one example of an artist page that illustrates firstly the sophistication of searching and finding on SITE F. But the example also demonstrates what can be achieved through the collaborative efforts of a membership and site operators who appear dedicated to ideals of contribution, obligation, reciprocity, and efficiency.

SAMPLE SITE F ARTIST PAGE: LED ZEPPELIN

The artist page for the English rock band Led Zeppelin is highly detailed; this is perhaps unsurprising due to the band's popularity, longevity, and impact on popular music. Led Zeppelin is a useful example for several reasons. Though the band was mainly active in the 1970s, their impact has been felt across musical genres since that time. They are widely acknowledged as one of the founding groups in heavy metal and they included a variety of global musical influences from around the world in their music (thus also making them pioneers in the field of 'world music').⁷¹

⁷¹ 'World Music' has been highly contested as a genre category given that it reinscribes a highly Eurocentric view of the dynamics of global cultural production while at the same offers access to music that much of the Western world would not normally be able to hear. Many of the progenitors of 'world music', Led Zeppelin and The Beatles notably, were somewhat notorious for expropriating 'exotic' sounds and including these sounds in compositions over which they claimed authorship. Much of their expropriations had origins in musical styles where either individual authorship is deemphasised in favour of its relation to tradition, or in which the music is actually a part of a collectively authored folk tradition. In Led Zeppelin's case this dynamic is further complicated by their liberal appropriation of African American blues, a genre that has its roots in a commonly held pool of verse, and the band's subsequent claims to authorship of this material. Such considerations of authorship and expropriation lead us directly back to the territory of music piracy and challenges to notions of intellectual property. For discussions of these points in relation to Led Zeppelin see Susan Fast, *In the Houses of the Holy: Led Zeppelin and the Power of Rock Music* (New York: Oxford University Press, 2001). On world music generally see Timothy D Taylor, *Strange Sounds: Music, Technology and Culture* (New York: Routledge, 2001).

During their heyday, and especially in the years following, bootleg recordings of the band's music were sold and traded around the world, often with the band seeking out and punishing suspected bootleggers. In fact, they are considered to be among the most bootlegged of all artists.⁷² Led Zeppelin's songs have been covered by a variety of artists from across the musical spectrum and their material has been a staple of hip-hop sampling since the early 1980s. Finally, each of the surviving members of the band have gone on to long and illustrious solo careers in a variety of genres since the band's breakup following the death of their drummer, John Bonham, in 1980. All of these factors have contributed to a rich recorded archive of Led Zeppelin related material and much of this material is available on SITE F. Thus, the Led Zeppelin artist page is rich with opportunities for describing the various facets of the page and also for demonstrating just how vast the catalogues of media on private sites can be (since much of the content shared here is also available on other private music sites).

The page subdivides Led Zeppelin's work into twelve different categories: albums, soundtracks, EPs, anthologies, compilations, DJ mixes, singles, live albums, remixes, bootlegs, interviews, and guest appearances. Under each of these categories several recordings are listed. In the interest of space, I will not list each of the recordings, but instead focus on just the first category, albums. Under the albums heading all of the band's nine official releases, from 1969's eponymous debut to 1982's posthumous *Coda*, are present.⁷³ Under each of the releases are all of the different versions available to share, and, especially in the case of a band like Led Zeppelin whose music has been issued and reissued around the world in a variety of media formats, there are many.

For the 1969 debut there are fourteen different versions of the recording comprising forty different torrents in various audio formats. The entire list is reproduced here and includes digitised versions of:

the original CD release;

⁷² See 'Vancouver '71 (Peter Grant) | Led Zeppelin - Official Website', *LedZeppelin.com*, <<http://www.ledzeppelin.com/image/vancouver-71-peter-grant>> [accessed 12 February 2012], 'Led Zeppelin Rock Bootleg Chart', *BBC News*, 17 August 1999, sec. Entertainment, <<http://news.bbc.co.uk/2/hi/entertainment/422948.stm>> [accessed 12 February 2012], and 'Star Page Witness in Bootleg Case', *BBC News*, 26 July 2007, sec. Glasgow and West, <http://news.bbc.co.uk/2/hi/uk_news/scotland/glasgow_and_west/6917449.stm> [accessed 12 February 2012].

⁷³ 1974's *Song Remains The Same* and the 1990 *Led Zeppelin Box Set* are correctly categorised under soundtracks and compilations, respectively. See Led Zeppelin, *The Song Remains The Same: Soundtrack From The Led Zeppelin Film*, CD (Atlantic UK, 1990); Led Zeppelin, *Led Zeppelin*, CD (Atlantic / Wea, 1990).

the original 1969 vinyl release;
 Atlantic SD8216 (the original US vinyl);
 Atlantic 58871 (the first UK issue on a label called Plum);
 Atlantic P-10105A (an early Japanese pressing);
 Atlantic SD19126 (Original CD remastered by engineer Barry Diament in 1986);
 Warner-Pioneer 20P2-2023 (a second Japanese pressing from 1988, part of a series called 'Forever Young');
 the 1990 CD re-release;
 Atlantic 82632-2 (a 1994 remaster with the participation of the band's guitarist Jimmy Page);
 Classic Records SD 8216 (a 2000 'Audiophile Reissue' in 180-gram vinyl);
 Classic Records SD 8216 (a 2000 'Audiophile Reissue' in *200-gram vinyl*);
 Atlantic WPCR-11611 (a Japanese 'mini LP/CD');
 a 2008 'Dr. Ebbetts' remaster CD;⁷⁴
 a 2008 Warner Music Japan WPCR-13130 SHM-CD Edition.⁷⁵

Each of these releases is shared in a variety of formats, with some of the more popular releases available in FLAC, MP3s of varying bitrates, and at times OGG (an open source audio codec). The digitised versions of vinyl sources are most often shared in FLAC format because it would make little sense to digitise vinyl only to compress the results to an MP3: all of the subtleties that audiophiles seek in listening to vinyl or

⁷⁴ Dr. Ebbetts was the name of a 'pirate remasterer' known for his high-quality unauthorised digital remasters of the Beatles catalogue at a time when audiophiles had registered widespread complaints about the poor quality of the original release of the Beatles catalogue on CD in the 1980s. See 'Dr. Ebbetts Sound Systems', *Dr. Ebbetts Sound Systems*, <<http://drebbetts.com/>> [accessed 12 February 2012]. Following the 2009 official release of the Beatles remasters, Ebbetts retired saying 'there has been considerable buzz surrounding the new Beatles remasters, due for release in September. There should be. We have all been waiting for this day, and it is about to arrive – finally! [...] The fact of the matter is, the Dr. Ebbetts material does not - and will not - sound better than what is coming commercially in September [...] It pains me, seeing as I have invested so much time in this thing, but I humbly and officially put this nearly-fourteen year project to bed'. See 'Dr. Ebbetts Has Heard the Beatles Remasters: He's Retiring!', *Head-Fi*, 2009, <<http://www.head-fi.org/t/433309/dr-ebbetts-has-heard-the-beatles-remasters-hes-retiring>> [accessed 12 February 2012].

⁷⁵ SHM-CD: 'SHM-CD, or Super High Material CD, is an improved version of the Compact Disc that uses higher quality, more transparent polycarbonate material that was developed for use in LCDs. It is compatible with any regular CD player. Universal Music Japan and JVC, who developed the SHM-CD, say that the new material also allows the pits to be formed more precisely, and the signal characteristics are improved as a result'. See 'Eastwind Import Home US - SHM-CD', *Eastwind Import*, <<http://www.eastwindimport.com/default.asp?categoryname=SHM-CD>> [accessed 12 February 2012].

digital encodings of vinyl would be lost. For every other entry in the 'albums' category there are similar variety of releases and formats. Other categories will be less diverse in terms of releases since many reissues, DJ remixes, soundtracks, and compilations will be less globally available, less popular, and certainly because many will have been released since the arrival of the CD they would likely not be available on vinyl. Furthermore, canonical releases, such as the official albums, over time tend to be subject to greater scrutiny by collectors, and compilations and other recordings, depending on their rarity, become less sought after.

Further specificity is revealed in the information that accompanies each version, and each audio format. One example should again suffice to demonstrate the high level of detail present on the artist page. Atlantic SD 8216, the original US vinyl release of the 1969 debut, is shared in FLAC 24-bit audio and includes the following details regarding the digitisation process:

24 bit 192kHz

Power:

TUNAMI AC CABLE

OYAIDE SWO-XX gold PRO 2500 Rack Mountable PowerCenter™ with Clean Power™ Stage 2

Turntable:

Technics SL-1200MK5 c CARDAS Tonearm wire, Fluid Damping System & Isonoe Advanced Isolation Feet.

Cart:

AT-OC9ML/II with Cardas HSL PCC E

Wires:

CARDAS PHONO with Furutech FA-p2.1 Balance Interconnect

Preamp:

PS audio GCPH

SC:

E-MU 1212M v2

Cleaning:

VPI Record Cleaning Machine

MFSL Plus Enzyme Cleaner

ZERODUST

Tuning: MFSL GEO-DISC

Soft:

Adobe Audition 3

Ripped to 32/192

Downsampled to 24/192

This highly detailed account of the process of transferring the original vinyl record to a digital audio file informs the potential downloader of the type of audio (24 bit at 192 khz); the power supply and power conditioning technology used to power the turntable and computer; the brand of turntable, its cartridge ('Cart'), also known as a stylus or needle, and tonearm variety; the audio preamp used to amplify the turntable's signal; the computer's soundcard ('SC'); 'tuning', which refers to the technology used to physically align the cartridge to ensure maximum fidelity; the software ('soft') used to digitise, master, and convert the audio; and finally, that the audio was first converted ('ripped') at a higher resolution ('32-192') and then converted ('Downsampled') to 24-bit (24-192) audio. For an audiophile this information is desirable because it indicates that the media file is likely of a very high quality since the member has gone to such great lengths to indicate the processes involved in creating the file.

The Led Zeppelin artist page further reveals a 1200-word artist description and a similar artist map featuring links between Led Zeppelin and other highly popular 1960s and 1970s hard rock artists, including Jimi Hendrix, Deep Purple, Cream, and the like. Accompanying this graphic representation is a list of all associated artists, which is much longer than that which is displayed in the graphic. In both the artist map and the list, one can click any artist's name and be taken directly to that artist's page. The page also offers some useful statistics in relation to the Led Zeppelin torrents shared on the site:

Number of torrents: 768

Number of seeders: 10,697

Number of leechers: 209

Number of snatches: 98,738

These figures reveal some important facets of the site's sharing dynamics. There are currently over 10,000 seeded torrents of Led Zeppelin material, with 209 leeching that material. However, over 10,000 seeders does not necessarily mean over 10,000 members. Since the figure refers to seeds, and because a member could be seeding multiple torrents, it is theoretically possible that only fourteen members *could* actually be seeding all 768 torrents. The same could be true of the leechers: it *could* be one

member downloading 209 torrents. Neither of the scenarios is very likely, so these statistics indicate that Led Zeppelin content is widely available and well seeded, in addition to being extremely popular. It is also important to note that over time, Led Zeppelin material has been snatched (downloaded) almost 100,000 times, though only a tenth of these downloads are still being seeded. These statistics also reflect the very common imbalances in the number of seeders versus leechers versus snatches that characterise private sites generally. Because of the strict ratio requirements, which require that members upload a percentage of what they download, members have an incentive to keep seeding torrents that they have downloaded though not everyone can or does; on the other hand though, concern over keeping a good ratio or enlarging one's buffer means that members are selective about how much and what they download.

None of the above would be possible without the direct participation of members. This is because, in addition to the obvious fact that most of the torrents themselves are provided by users, all of the information that appears on search results, torrent pages, and artist pages is generated by the membership at the time of upload and as members contribute to tagging and editing these pages. This is true of most private sites, though the SITE F example above is exceptional in this regard. In contrast to public sites, where this information is largely optional, or there is no appropriate place to include it, private sites usually require such information to be included before one can even upload a torrent file.

CONCLUSION

The above description offered a highly detailed rendering of the myriad complexities and intrigues that exist within the world of private BitTorrent filesharing. I have addressed such important private site dynamics as access to membership, the role of status and hierarchy in providing incentives for members to share, the sophistication of cataloguing and indexing in search functions, and the ways in which the sites are able to fund their operations. Along the way it has been my intention to reveal some of the important points where I might conduct some theoretical interventions in the project of interpreting how these aspects of private sites might relate to the role that media piracy is said to play in the shifting dynamics of the commercial media industries. The complexities of private sites coax many questions: In what ways do these sites subvert or support capitalist approaches to monetising digital media? What can we make of the parallel between the artificial scarcity imposed by content industries through the

restriction of access to cultural production and the restricted access that, at base, distinguishes private filesharing from its more egalitarian public counterparts? Relatedly, how do we interpret the presence of significant competition and risk on these sites given that these have also come to define the wider economic and social paradigm of neoliberalism and the expansion of global capital? What effects, if any, does the fundamentally undemocratic power structures of both public and private sites reveal about media piracy's relationship to those discourses and practices that stress the importance of a global interconnectivity in the struggle for a more egalitarian and democratic world, especially since peer-to-peer activity has been linked to such goals?

The second part of this thesis takes up these questions and theorises public and private BitTorrent piracy in relation to their potential role in anti-capitalist activities. Each variant exhibits distinct priorities. Public filesharing privileges open and egalitarian access to media and in so doing potentially sacrifices the quality and availability of the media that is shared. They do this in a way that adapts a logic of audience commodification through advertising that is similar in many ways to the forms of valorisation employed by mainstream legal online digital media distribution. Chapter Six takes up the question of audience commodification and looks to the ways in which private sites tend to subvert this logic by refusing to valorise their members as informational commodities. At the same time though, this refusal to valorise 'audience power' comes at a cost. By enclosing and restricting access to digital media through the social meritocracy of the invite, interview, and application processes, private sites reinscribe many of the problematic elements of contemporary neoliberal capital.

It is the task of Chapter Seven to take up the division between exclusion and openness. Chapter Seven seeks to assess in what ways public and private BitTorrent piracy embody new institutional formations directed toward the production, enhancement and maintenance of the 'common', which is understood as those shared capacities for producing knowledge, ideas, affects, and so forth. From the vantage point of the common it is possible to discern elements in both paradigms—public and private—that simultaneously enhance some aspects of the common while degrading others. Crucially, these analyses of the refusal of audience commodification and the pirate common affirm one of the central points of this thesis, which is that piracy is a profoundly ambivalent phenomenon: it is not homogeneously anti-capital, it is not wholly revolutionary, and it rests as much on exclusion as it does on openness.

Nonetheless, there are many piratical practices that do speak to its potential as a critical form of autonomous intervention that grates against capital's domination not only over the distribution of cultural production, but also against capital expansion into more and more aspects of life.

CHAPTER SIX: PIRACY AND THE POLITICS OF REFUSAL

INTRODUCTION

While industry has spent much of the last decade attempting various strategies for monetising online content, stumbling along the way with restrictive digital rights management, it seems clear now that audiences' capacities to share, communicate about, and desire music are rapidly becoming the primary site for the valorisation of audience labour. This chapter analyses piracy's capacity to resist the commodification of audiences and the expansion of capital and market logics to encompass many more areas of life than hitherto thought possible. It finds piracy to be a profoundly ambivalent force in this regard, since piracy itself is not a homogeneous phenomenon: some variants are revealed to support and even further entrench the logic of audience commodification at the same time as other variants appear to subvert this logic.

Since the early 1990s, capital has been searching for ways to monetise online content and mediate the effects of piracy. With regards to digital music distribution it was thought at first that restricting what listeners could do with downloaded music files through the use of various Digital Rights Management technologies was thought to be the best way to stem the flow of illegal content online. This has largely been abandoned in favour of less immediately restrictive paradigms. Innovations in the area of legal commercial digital music distribution that have proliferated in recent years suggest that recorded music distribution has, despite the much publicised 'threat' of online piracy—or quite possibly *because* of the threat of piracy—been able to harness the power of Internet communications for the legal (and profitable) distribution of music without the use of Digital Rights Management (DRM). Profitable online music distribution, despite eluding the music industry for some time now seems a reality. Major record labels appear have adjusted, though not necessarily smoothly, to the economic realities of digital media through developing distribution agreements with a host of new firms working the area of online media distribution.

Some of these firms operate from a traditional commodity logic by offering their customers downloadable digital music files in exchange for a fixed price. In an act of exchange that appears to mirror earlier ways of purchasing music, with the exception of storage media, such services facilitate, for a price, the transfer of digital information from their servers to the home computers of their customers. Other firms operate from a

different logic, one that is not based so much on the sale of a discrete commodity as it is on the provision of a web-based music 'subscription service' where customers access myriad content for a monthly fee, or, for free, if the service is funded through advertising. Here, listeners' usually do not download actual music files; rather, they stream the music directly from the Internet.

These new successful strategies for monetising online music distribution, regardless of whether or not the listener downloads a music file or streams it, have shifted the focus away from the music commodity as such. The most successful companies have instead found innovative ways to monetise listeners themselves by requiring that users of a given service create unique accounts in order to access music. Listeners submit personal information in the form of credit card numbers, locations, and music tastes. In exchange they are able to access a wide variety of music, peruse recommendations based on their listening profile, while increasing their value as informational commodities through the sharing of playlists and general expansion of the 'social' dimension of online music consumption. For the companies, listeners' desires and capacities to engage with and communicate about music—listening, sharing, and so on—are thus combined with the efficiencies of network technologies to collect and compile data about them as audiences in order to generate surplus value. Companies are also able to analyse in great depth the detail they have collected about their customers and subscribers. In some cases this data is used to provide listeners with recommendations based on past purchases in order to hold their attention and to keep them purchasing from that company. In other cases, the data is compiled and sold to advertisers, who in turn are able to target their advertising toward individual listeners. In each case, audiences, both as individuals and collectively, become informational commodities; their tastes, habits, and capacities to share and communicate about music are packaged together to become an additional, and increasingly primary, site of surplus value extraction.

In this chapter I argue that the rise of commercial online music distribution that commodifies audiences in addition to selling digital music commodities is an example of the intensification of capital's dynamism and adaptability as it expands the possibilities for surplus value generation into areas previously barely touched by market logics. Furthermore, an analysis of public and private BitTorrent music piracy reveals several ambivalences as regards piracy's revolutionary capacity in relation to this dynamism. Music piracy certainly already seems to reject out of hand the logic of

copyright, of seeking permission through payment for the use of every single music file. It has proven particularly efficient at distributing cultural production since it proceeds more or less unhindered by the restrictions of intellectual property. But what are we to make of piracy in relation to capital's new strategies for monetising online distribution through the commodification of audiences? Within the logic of audience commodification, what potentials exist within music piracy for resistance? What role does and can piracy play in rejecting not only copyright but the commodification of listening more generally?

Such questions are crucial, since strategies for the commodification of listening audiences have emerged partially in response to piracy's revelatory role in shedding light on questions about the viability of an economics of scarcity based on the restrictive nature of intellectual property rights. In other words, it was through the activities of online pirates that widespread mainstream attention has been paid to copyright, intellectual property, patents, and trademarks, issues that were once the sole domain of lawyers and policy makers. Piracy and capital are thus caught in a mutually reinforcing arrangement where piracy's challenge to the logic of property in one sphere prompts capital to make adjustments in another sphere. This process of challenge and responsive adjustment also reveals that piracy is by no means immune to shifts in capital's strategic adaptations, and in many cases it may actually serve to reinforce and further entrench the logic of audience commodification. Indeed, far from existing in opposition to the logic of audience commodification, today the most popular venues for media piracy are awash with commercial advertising and options for paid subscriptions. Just as with more legitimate commercial venues, these sites turn information about audiences into a primary means for supporting operational costs and generating profit. Even though the profits themselves can be minimal, the logic remains unchallenged. At the same time, many private BitTorrent sites eschew commercialism of any sort and do not feature advertising. Yet the echoes of for-profit and commodification frameworks resound as these sites rely on the familiar mechanisms for surveilling and tracking their members' capacities to share, listen to, and communicate about music, though in many cases this information is put toward a much different end. In this way, private BitTorrent sites can be seen as a useful area for analysing the possibility for rejecting the valorisation of audiences for capital accumulation.

In order to begin to answer these questions, I trace the emergence and rise to dominance of what Burkart and McCourt and others have called the 'Celestial Jukebox',

an always available and (it is hoped) always profitable arrangement for the distribution of cultural production through intensified surveillance and data collection.¹ Through their listening and sharing activities, users of the Celestial Jukebox contribute to the production of their own informational commodification as they voluntarily submit information, allow their activities to be tracked, pay attention to advertising, and submit to the contractualisation of music listening. In so doing, they embody what Dallas Smythe has called 'audience power', which is actualised through a form of 'audience labour', in which their attention to advertising and their willing submission to data monitoring becomes a primary site for/of capitalist valorisation.² The audience's labour is part of a much wider social and economic shift that, from the Autonomist Marxist perspective, is seen as the rise to prominence of 'immaterial labour', or that labour that is involved in the creation of information, code, knowledge, and affects.³ Economies that are rapidly shifting toward such immaterial production are both the causes and effects of the expansion of capital and market logics into all aspects of life, or what Autonomists see as a shift from the industrial to the 'social' factory. Refusal of work is crucial for resistance to capitalist valorisation, whether under the conditions of industrial capital or immaterial labour. Since capital relies on labour as the site of surplus value creation; whether in the industrial factory or the social, withdrawal from capitalist labour relations is seen by Autonomists as a crucial step toward emancipation from capital.

I analyse contemporary digital music distribution's legitimate and illegitimate variants in order to reveal the many ambivalences of piracy in relation to the refusal of audience labour. Here, public BitTorrent sites and popular 'file lockers' are revealed to have adapted themselves to the idea of audiences as the site of value extraction; they exploit audience's capacities at the same time as they seemingly free the 'objects' of digital music from their status as commodities. One could also be seen as a result of the other, an exchange of positions: as the musical commodities themselves are freed, the audiences become commodities themselves, and the site of exploitation in the search of

¹ Patrick Burkart and Tom McCourt, 'Infrastructure for the Celestial Jukebox', *Popular Music*, 23 (2004), 349–362; Patrick Burkart and Tom McCourt, *Digital Music Wars: Ownership and Control of the Celestial Jukebox* (Lanham: Rowman & Littlefield Publishers, 2006).

² Dallas Walker Smythe, *Dependency Road: Communications, Capitalism, Consciousness, and Canada* (Norwood, NJ: Ablex, 1981), pp. 22–51.

³ Michael Hardt and Antonio Negri, *Empire* (Cambridge, MA: Harvard University Press, 2000); Maurizio Lazzarato, 'Immaterial Labor', in *Radical Thought in Italy*, ed. by Paolo Virno and Michael Hardt (Minneapolis, MN; London: University of Minnesota Press, 1996), pp. 133–150. also available online at <<http://www.generation-online.org/c/fcimmateriallabour3.htm>>.

for surplus value. Private BitTorrent sites are seen to also mobilise the logic of audience commodification. However, instead of using surveillance techniques and audience data as a means to profit monetarily, private sites appear to put audiences to work in the project of expanding the quality and diversity of a site's offerings. At the same time, the results of this labour are cordoned off and made inaccessible to non-members: just as the musical commodities are exclusive to members, so the product of the creative labour of the audience is as well.

THE CELESTIAL JUKEBOX BECOMES REALITY

With the rise of Apple's iTunes Music Store (and its corresponding software player and iPod) and the inroads made by Amazon's MP3 store, online music distribution has increasingly become easier for customers to use and at the same time more profitable for the recording and technology industries. iTunes and Amazon are the two dominant pay-per-download online music distributors.⁴ Each has also begun to make inroads into the market for 'cloud' services by offering customers access to their music via any number of Internet-connected devices. iTunes Music Store sales have steadily increased since its introduction in 2003. By 2011 over 10 billion individual tracks had been purchased and industry analysts are predicting that iTunes could see annual revenues increase to approximately US\$13 billion by 2013.⁵ Amazon's MP3 store, which pre-dates iTunes by four years, has had less spectacular success. Though ranking second in market share to iTunes, in 2008 it was estimated to have sold only about one-twentieth of the tracks iTunes had in the same period.⁶ Despite the wide disparity in sales, both venues are now entrenched as primary sources for legally accessible downloadable music.⁷ The sizeable revenues that are now associated with online music distribution suggest just how high the stakes are for commercial online media, and furthermore suggest that intensified efforts to ensure its growth will be

⁴ Mike Luttrell, 'Never-ending iTunes Sales Tally Hits 10 Billion', *TG Daily*, 2010 <<http://www.tgdaily.com/consumer-electronics-brief/48578-never-ending-itunes-sales-tally-hits-10-billion>> [accessed 6 February 2012].

⁵ Luttrell; 'Apple iTunes May Add About \$13 Bln in FY13 Revenues: Analyst', *International Business Times* <<http://www.ibtimes.com/articles/174289/20110705/apple-ipad-3-ipad-kindle-amazon-itunes-appstore-ibook-store-ebook.htm>> [accessed 6 February 2012].

⁶ Antony Bruno, 'Challenges Remain for Amazon Digital Music Service', *Reuters*, 2008 <<http://uk.reuters.com/article/2008/12/13/us-2008-amazon-idUKTRE4BC1TZ20081213>> [accessed 6 February 2012].

⁷ Further proof is that iTunes downloading activity is estimated to account for 2.7% and 3.1% of American and European Internet bandwidth respectively. See Frédéric Filloux, 'Piracy Is Part of the Digital Ecosystem', *The Guardian*, 23 January 2012, section Technology <<http://www.guardian.co.uk/technology/2012/jan/23/monday-note-piracy-sopa>> [accessed 6 February 2012].

forthcoming.

However, the marriage between online distribution venues and the major record labels did not begin smoothly. Major labels were initially reluctant to allow their content onto the Internet without some measures in place to either prevent its duplication, or make duplication extremely difficult. As Apple founder and former CEO the late Steve Jobs noted in a 2007 document entitled ‘Thoughts on Music’: ‘When Apple approached these companies to license their music to distribute legally over the Internet, they were extremely cautious and required Apple to protect their music from being illegally copied’.⁸ Thus, when iTunes first began distributing major label content, it did so with Digital Rights Management attached. It was not long, however, before DRM was shown to be at best an annoyance to legitimate customers and at worst (for the record companies) easily defeated by freely available computer software designed for just such a purpose.⁹ Sensing DRM to be a hurdle to the expansion of digital music distribution, Apple’s response was to use their market dominance to pressure the labels to allow them to sell music without DRM. Jobs, in his dramatic fashion, offered the following:

Imagine a world where every online store sells DRM-free music encoded in open licensable formats. In such a world, any player can play music purchased from any store, and any store can sell music which is playable on all players. This is clearly the best alternative for consumers, and Apple would embrace it in a heartbeat. If the big four music companies would license Apple their music without the requirement that it be protected with a DRM, we would switch to selling only DRM-free music on our iTunes store. Every iPod ever made will play this DRM-free music.¹⁰

Jobs acknowledged the problem represented by DRM: it punished legitimate customers while doing little to stem the flow of illegal digital distribution. Jobs’s pitting of Apple against the major recording industry can be seen a calculated move to position Apple somewhere on a continuum between the perceived rebelliousness of piracy and the old-media attitude of record labels. In so doing, the company could be seen as embracing

⁸ Steve Jobs, ‘Thoughts on Music’, *Apple*, 2007
<<https://www.apple.com/fr/hotnews/thoughtsonmusic/>> [accessed 6 February 2012].

⁹ Mark Harris, ‘Top 5 DRM Removal Programs - Best DRM Removal Software’, *About.com*
<http://mp3.about.com/od/essentialsoftware/tp/best_drm_removal_software.htm> [accessed 29 February 2012]; ‘Crack iTunes Protected Music (remove DRM Protection)’, *Instructables*
<<http://www.instructables.com/id/Crack-itunes-protected-music-remove-DRM-protectio/>> [accessed 29 February 2012].

¹⁰ Jobs.

new-media's emphasis on openness and the free flow of information, while at the same time opening up the possibilities for expanding its market among those who were not interested in paying for music which could only be played on a limited number of devices and that could not easily be swapped. To some degree, Apple has been successful in this regard. However, the major record labels saw Amazon's emergence as an opportunity to leverage the competition between the two as they crafted new agreements with Amazon and revisited those they already had with iTunes.¹¹ If iTunes was going to pursue selling DRM-free content, it would seem possible then for labels to improve upon existing agreements since iTunes was about to face reasonable competition in a market it had dominated since its inception. In the end, DRM-free music was gradually made available via iTunes, first as premium higher priced downloads and then through an extension to the entire catalogue. Amazon's selection was DRM-free from the start.

I briefly raise these points to indicate that capital's adjustment to the potential threat of music piracy, though quite successful, has been neither uniform nor smooth. Like other media areas, from newspapers to film and television, it is a development that has seen incumbent firms face off against emergent ones and is characterised by shifts in the balance of power and control over the distribution of cultural production. Record labels, which previously had controlled most aspects of recorded music production and distribution as an oligopoly—with the exception of the final stop, the record store—are now compelled to enter into agreements with computer companies (Apple) and former book retailers (Amazon) in order to sell their wares online.¹² However, the proven viability of iTunes and Amazon and the burgeoning success of other legal music venues online has been cold comfort for many in the industry. In fact, the introduction of the Apple's iCloud and Amazon's Cloud Drive and Cloud Player has wrought even more tension between the distributors and the recording industry. In contrast to downloading, both services offer customers the chance to stream purchased music from the Internet to any connected device. Additionally, for a fee customers can upload music from their existing collections to the service. Some labels took umbrage at this development and suggested that this was an area that would require the consideration of new content licensing agreements. Amazon has proclaimed that the service has actually resulted in

¹¹ Arnold Kim, 'iTunes Still Well Ahead of Amazon MP3 Store', MacRumours, 2008 <<http://www.macrumors.com/2008/12/16/itunes-still-well-ahead-of-amazon-mp3-store/>> [accessed 6 February 2012].

¹² Burkart and McCourt, *Digital Music Wars*, pp. 18–32.

an increase in MP3 sales and that this alone should be enough to placate the industry's fears that it is not being properly remunerated.¹³

Amazon and iTunes are, however, latecomers to online music streaming and 'cloud computing'. Since the late 1990s, and enabled by the rapid uptake of broadband Internet in North America at that time, several outfits have provided music via web interfaces and software. Cloud services are attractive to music listeners and Internet users because they 'promise massive storage space for users' files, playlists, preferences and information as well as remote access to that data regardless of device or location'.¹⁴ Among them, one of the oldest is Rhapsody, a US-only service that offers users 'on demand' licensed digital content from all of the major record labels in exchange for a monthly subscription fee. At the time of writing the 'basic' plan is US\$4.99, 'premium' plan is US\$9.99, and 'premium plus' is US\$14.99 per month.¹⁵ Each of the different plans offers customers greater flexibility regarding which and how many mobile devices they can play music on as part of their subscription. As of 2008 '[t]he service had more than 775,000 subscribers in the fourth quarter, an increase over the 600,000 listed in the fourth quarter of 2007'.¹⁶ At that time Rhapsody was still owned by RealNetworks, which noted that it was the primary driver of revenues upwards of US\$40 million.¹⁷ Pandora, another US-only service, acts primarily as a recommendation/discovery service. Users create profiles to tailor music streams by indicating particular types of songs or artists that they are interested in hearing; with this information the Pandora software generates a streaming 'radio station' according to these parameters. Users can access each other's listening activity and other data by 'following' other users. Listeners are able to rate the songs they hear, and their ratings further tailor the experience by assisting the software as it dynamically and intelligently determines which types of songs to include in the stream and which to avoid. Users are also offered links to

¹³ Ed Christman, 'Amazon Letter To Labels: Cloud Drive Locker Has Boosted MP3 Sales', *Billboard*, 2011 <<http://www.billboard.biz/bbbiz/industry/digital-and-mobile/amazon-letter-to-labels-cloud-drive-locker-1005126042.story>> [accessed 6 February 2012].

¹⁴ Jeremy Morris, 'Sounds in Tthe Cloud: Cloud Computing and the Digitam Music Commodity', *First Monday*, 16 (2011) <<http://firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/article/view/3391/2917>> [accessed 6 February 2012].

¹⁵ 'Rhapsody - Subscriber Plans', *Rhapsody.com* <<http://www.rhapsody.com/subscriberplans>> [accessed 6 February 2012]; Matt Graves, 'Rhapsody Premier: You've Got Questions, We've Got Answers', *The Mix*, 2010 <<http://blog.rhapsody.com/2010/04/rhapsody-premier-youve-got-questions-weve-got-answers.html>> [accessed 6 February 2012].

¹⁶ Anthony Bruno, 'Rhapsody Revenue Up 14%', *Billboard*, 2009 <http://www.billboard.biz/bbbiz/content_display/industry/news/e3i2caa28b320f868d536c747dbb2cac076> [accessed 6 February 2012].

¹⁷ Bruno, 'Rhapsody Revenue Up 14%'.

purchase songs from online distributors such as iTunes or Amazon.¹⁸ Pandora is available as an advertising-supported free service, which most users opt for, and also as an advertising-free paid service that costs US\$36 per year.¹⁹ David Kaplan writing for *paidcontent.org*, a website that offers analyses of and commentary on the economics of digital media, noted that in 2011 Pandora ‘brought in \$67 million in revenue, a 117 percent year-over-year gain, about \$58.3 million was in advertising dollars, which were up 118 percent over the same time last year. Subscription and other revenue was \$8.7 million, a 112 percent year over year increase’.²⁰ Spotify is a more recent entry in the online music streaming market. Similar in many ways to Pandora, the service offers a free service supported by advertising; however, in addition to visual ads, there are also ‘radio-style’ audio ads of approximately thirty seconds in length that appear periodically as the user listens to music. There is also a paid option where, for US\$10 per month, there is no advertising and the quality of the streamed music is higher. Spotify offers both on demand and Pandora-style radio options. Users can also purchase downloadable MP3s for around US\$0.70. The service is available in most of Europe and the US, but is currently awaiting launch in Canada. More recently, Spotify has entered into partnership with Facebook, further solidifying and expanding the reach of the celestial jukebox and its strategy of monetising audiences’ attention.²¹

Though many subscription-based services like those noted above have yet to produce significant profits—indeed many operate at a net loss—the gradual increase in their uptake is taken as an overall positive for the recorded music industry in terms of both increasing revenues and the apparent willingness of music listeners to use these services. Music industry revenues have risen in recent years, after the fallow period post-Napster, and the promise of more profits is in the air.²² The increasing acceptance

¹⁸ ‘Pandora | Help’, *Pandora.com* <<http://help.pandora.com/>> [accessed 6 February 2012].

¹⁹ ‘Pandora | Pandora One’, *Pandora.com* <<http://help.pandora.com/customer/portal/articles/84834-pandora-one>> [accessed 6 February 2012].

²⁰ David Kaplan, ‘Pandora Revenues Jump Triple Digits; Chance Of Breaking Even In 2012’, *paidContent*, 25 August 2011 <<http://paidcontent.org/article/419-pandora-revenues-jump-triple-digits-chance-of-breaking-even-in-2012/>> [accessed 6 February 2012].

²¹ Parmy Olson, ‘Facebook To Launch Music Service With Spotify - Forbes’, *Forbes*, 25 May 2011 <<http://www.forbes.com/sites/parmyolson/2011/05/25/facebook-to-launch-music-service-with-spotify/>> [accessed 29 February 2012].

²² Steve Jones, ‘Music Industry’s Sales Are up, up, up This Year’, *USA Today*, 6 July 2011 <http://www.usatoday.com/life/music/news/2011-07-06-music-sales-jump-this-year_n.htm> [accessed 29 February 2012]; Jared Moya, ‘UK Music Industry’s Own Economist Says Revenue Up 4.7%’, *ZeroPaid*, 2009 <<http://www.zeropaid.com/news/86724/uk-music-economist-says-music-industry-revenue-up-4-7/>> [accessed 29 February 2012]; Zachary Sniderman, ‘The Music Hasn’t Died: Sales Up for First Time Since 2004’, *Mashable*, 2012 <<https://mashable.com/2012/01/06/music-2011-nielsen-soundscan-report/>> [accessed 29 February 2012].

of subscription services is seen as proof-of-concept that the blending of cloud-based services with pay-per-download services and social media platforms, such as Facebook, is something that music listeners will accept and, in some cases, prefer over maintaining personal digital or physical music collections. But, as with the tensions around licensing that characterised the major labels dealings with iTunes and Amazon, the development of legal digital music subscription services has been somewhat uneven. Grooveshark, for example, seemed poised to compete with Spotify—it was available in more regions and offered free-advertising-supported and paid subscription music streaming and even allowed users to upload music they owned to the site's catalogue of available music. However, difficulties arose in securing content licenses from record labels—which meant that users were often streaming music that Grooveshark had no authorisation to stream—and non-payment of royalties to those labels with whom Grooveshark did have agreements. By January 2012 it was reported that the service was being sued by all of the major record labels in a raft of lawsuits spanning breach of contract to copyright infringement.²³ In the realm of media regulation and policy, Pandora found itself on the verge of terminating its service in 2008 following increases in performing rights royalty rates that threatened to bankrupt online radio stations and which in Pandora's case may have represented up to 70% of the company's revenues.²⁴

The inter-capitalist tensions that have characterised the industry's attempts to monetise online music distribution are instructive in their own regard. Capital's adjustment has not been a smooth one, and regardless of what 'side' of the old- versus new-media debate is emphasised, piracy consistently appears as a determining factor in the future of profitable distribution of digital cultural production. However, a broader perspective reveals that regardless of its internal tensions, capital is indeed restructuring in order to adjust to socially and culturally-driven developments in digital music filesharing. This restructuring largely appears successful, and a primary reason for this success is these new venues' ability to commodify listening practices themselves by exploiting information about their audiences. Crucial to the analysis here is the nature of this adjustment and what role, if any, piracy plays in supporting or subverting this

²³ Steve Musil, 'Grooveshark Now Feels Lawsuit Wrath of All Major Music Labels', *CNET*, 5 January 2012 <http://news.cnet.com/8301-1023_3-57353515-93/grooveshark-now-feels-lawsuit-wrath-of-all-major-music-labels/> [accessed 6 February 2012].

²⁴ David Chartier, 'Pandora Can't Make Money, May Pull the Plug', *Ars Technica*, 2008 <<http://arstechnica.com/old/content/2008/08/pandora-cant-make-money-may-pull-the-plug.ars>> [accessed 6 February 2012]; Eric Bangeman, 'Court Declines to Postpone Internet Radio Royalty Hike', *Ars Technica*, 2007 <<http://arstechnica.com/tech-policy/news/2007/07/court-declines-to-postpone-internet-radio-royalty-hike.ars>> [accessed 6 February 2012].

restructuring. At stake are questions around access to cultural production and the disempowering effects of the more complex expansion of capital into everyday life, namely into areas that have until recently not served as sites for the extraction of surplus value.

The above services are examples of what Patrick Burkart and Tom McCourt have described as a ‘Celestial Jukebox’, which for the content industries is the actualisation of a profitable system that ‘dispenses audio-visual files and streams in dribs and drabs through wireless and broadband Internet connections’.²⁵ Though the origin of the term is uncertain, Burkart and McCourt point to Paul Goldstein’s description of the Celestial Jukebox as a type of otherworldly event, a ‘satellite orbiting thousands of miles above the Earth, awaiting a subscriber’s order’.²⁶ Hence the term celestial. But celestial can also refer to the divine, the heavenly, and thus the ‘perfect’. In this way, the celestial jukebox is mythological entity that sees the future of digital media distribution as a conflict-free zone of pure enjoyment. Piracy, as will be discussed, cuts across this smooth and trouble-free space by introducing antagonism between the profitable nirvana imagined by the music industry and the actual material practices of many music listeners. ‘Jukebox’ too conjures images of a bygone ‘perfect’ America, in which freshly minted 1950s rock’n’rollers were able to conjure their favourite music for a small price in whatever social venue they preferred (which would naturally be those with jukeboxes). The celestial jukebox is sutured to the freedom of early rock’n’roll and market values and conflates the two as the ultimate expression of American-style freedom. But, much like the tensions between online media distribution and arcane copyright laws today, jukeboxes and recorded music emerged out of tensions between older practices and newer technology. In his damning account of recorded music, written in 1906, the American composer John Philip Sousa noted that, ‘injuries to music in its artistic manifestations, by virtue—or rather by vice’ were a direct result of ‘the multiplication of the various music-reproducing machines’.²⁷ Yet, the ‘distinctly US cultural flavor’ of the Celestial Jukebox, Burkart and McCourt note, aligns with values of progress and also the religiosity associated with technological ‘fixes’, which are invested with magical and mythical properties that are divorced from the materiality

²⁵ Burkart and McCourt, ‘Infrastructure for the Celestial Jukebox’, p. 349.

²⁶ Paul Goldstein, *Copyright’s Highway: From Gutenberg to the Celestial Jukebox* (New York: Hill and Wang, 1994), p. 100; Burkart and McCourt, 349–362. (p. 349)

²⁷ John Philip Sousa, ‘The Menace of Mechanical Music’, *Appleton’s Magazine*, 1906 <<http://explorepahistory.com/odocument.php?docId=1-4-1A1>>.

of quotidian existence.²⁸ As if speaking directly to the dreams of the contemporary music industry from a vantage point a century ago, Sousa offered this assessment: 'It cannot be denied that the owners and inventors have shown wonderful aggressiveness and ingenuity in developing and exploiting these remarkable devices'.²⁹ Such an aggressive investment in the magical properties of technology finds no better expression than in Steve Jobs's statements above.

There are two major components to the Celestial Jukebox's infrastructure. The first, Digital Rights Management, is a technical 'solution' to the problem of unauthorised filesharing in which media files may be restricted to certain playback devices or made difficult to duplicate. Digital Rights Management has largely fallen out of favour for digital music for a variety of reasons, including consumer resistance and the exposure of questionable practices by labels that shipped compact discs with potentially unsecure software. Consumer resistance to Digital Rights Management was spurred on by a focus on the negative aspects of DRM by some of the Internet's most well known commentators. The resistance found expression in the growing wariness of music listeners to pay for what were seen as 'crippled' music files since they could not be swapped or played on different devices without first authorising those devices; consumers came to understand that they didn't actually 'own' the music that contained DRM since, in essence, what they were purchasing was a license to listen to the file, akin more to rent than ownership.³⁰ The 2005 Sony 'Rootkit fiasco' saw the revelation that the company had secretly included on select compact discs computer software that modified users' computers in order to prevent unauthorised copying of the disc with CD writers. Moreover, the software was found to open up a user's computer to possible attack from an outside party. Hackers call this a 'rootkit' and it is a variety of spyware. Consumer outcry against the invasion of privacy and personal space led to Sony's decision to halt the practice and eventually offer replacements for the spyware-infected CDs.³¹ The case of DRM though it less common in music now, is still a popular means

²⁸ Burkart and McCourt, 'Infrastructure for the Celestial Jukebox', p. 350.

²⁹ Sousa.

³⁰ Mary Madden, *Done Restricting Music: The End of DRM and the Future of Music Online*, The State of Music Online: Ten Years After Napster (Pew Research Center's Internet and American Life Project, 2009) <<http://pewinternet.org/Reports/2009/9-The-State-of-Music-Online-Ten-Years-After-Napster/The-State-of-Music-Online-Ten-Years-After-Napster/5-Done-Restricting-Music-The-end-of-DRM-and-the-future-of-music-online.aspx>> [accessed 29 February 2012].

³¹ David Berlind, 'Sony Offers Removal and Replacement for Rootkit DRM', *ZDNet*, 3 November 2005 <<http://www.zdnet.com/blog/btl/sony-offers-removal-and-replacement-for-rootkit-drm/2112>> [accessed 6 February 2012]; Bruce Schneier, 'Real Story of the Rogue Rootkit', *Wired*, 2005 <<http://www.wired.com/politics/security/commentary/securitymatters/2005/11/69601?currentPage=all>> [accessed 6 February 2012].

for restricting certain usages of DVDs and video games. It illustrates the legitimisation of invasive regimes of control that capital sees as necessary or controlling the potential for profit.

The second component is of the celestial jukebox is 'Customer Relations Management', and this is the primary focus of this chapter. Customer Relations Management is concerned to collect data about customers and their behaviours so that content providers can both customise and 'push' preferred content to individual consumers based on the data they have submitted about themselves. Moreover, Customer Relations Management tracks of customers' and combines this with the collected data and sells this information to advertisers.³² The logic of Customer Relations Management has, following the example of Web 2.0 and 'social media', become a central component in the project of monetising online music distribution. Streaming or 'cloud-based' services, like Rhapsody, Pandora, Spotify and so forth, and pay-per-download services like iTunes and Amazon, are able to extract value from listening practices by crafting 'detailed profiles of customer behaviours, and that of their online cohorts', and they do so with the primary goal of 'building and knowing audiences'.³³ As Burkart and McCourt wryly note: 'This jukebox may not accept your loose change, but it will take your credit card number, all the while collecting and selling information on your habits, preferences, and identity'.³⁴ As I will take up further below, this means not only that music listeners become packaged as informational commodities; the collective capacities for listeners to engage in communication through music, to experience pleasure from it, and to share thoughts and ideas all become points for the extraction of value and are thus representative of capital's reach into hitherto relatively untouched areas of life.

Piracy's relationship to the emergence of the Celestial Jukebox has been an ambivalent one. On the one hand, it seems to directly contradict the profit-oriented aspects of the Celestial Jukebox that have their basis in the exploitation of copyright. On the other, there are many aspects of peer-to-peer filesharing that appear in the various permutations of the jukebox. Specific examples reveal how clearly, tracking and monitoring were crucial to Napster's ability to connect its users to one another in order to transfer files, and indeed the centralised nature of this monitoring was its ultimate downfall. Spotify utilises peer-to-peer strategy that, like BitTorrent, utilises collective

³² Burkart and McCourt, 'Infrastructure for the Celestial Jukebox', p. 350.

³³ *Ibid.*, p. 354.

³⁴ Burkart and McCourt, *Digital Music Wars*, p. 6.

bandwidth order to increase the efficiency of their music streams.³⁵ Social aspects of the Celestial Jukebox also draw much from piracy. Many of the earliest peer-to-peer clients, from Napster to Kazaa, Audiogalxy to DC++, offered opportunities for users to connect to one another over and above the file transfer—chat clients, private message boards and the like were all possible—and most BitTorrent-related websites, whether public or private, are also social spaces.

Nevertheless, Burkart and McCourt's critique of the Celestial Jukebox is primarily concerned to understand its potential disempowering aspects in terms of access to the objects of cultural production. The 'pay-per-society' they critique is framed largely in terms of the relationship of audiences to the musical commodities they seek to procure and how this relationship is under threat from privatisation and enclosure. In fact, the emergence of the Celestial Jukebox and the locking down of the distribution of digital cultural production is seen largely as a *fait accompli*:

[The] culture industries have transformed the Internet from a public space into a private distribution platform for media conglomerates. Though online consumers may have greater access to commercial media content, it has come at a cost to their society. Instead of a gateway into a utopian cultural abundance, the Celestial Jukebox has become a tollbooth into a web of privately owned and operated networks where traffic in intellectual property is carefully monitored and controlled, a walled garden of closed networks with restricted access and tightly circumscribed activities.³⁶

In many ways, Burkart and McCourt are correct: an overwhelming amount of Internet bandwidth is used in commercial pursuits.³⁷ There are a variety of reasons for this. The marketing campaign that with incredible success 'married' iTunes and the iPod/iPhone to one another in the minds of the music-buying public is significant here, as is the burgeoning success of the Amazon MP3 store and the popularity of Rhapsody, Pandora, and Spotify.³⁸ These are venues written about throughout the blogosphere and on

³⁵ Nathan Chandler, 'How Spotify Works', *HowStuffWorks*, 2011 <<http://electronics.howstuffworks.com/gadgets/audio-music/spotify.htm>> [accessed 29 February 2012].

³⁶ Burkart and McCourt, *Digital Music Wars*, pp. 4–5.

³⁷ Filloux.

³⁸ Most iPod/iPhone users are likely unaware that their devices can be used with a variety of media players and not just the iTunes player. Indeed, many of these players are free and open source and allow users to transfer media both from the computer to the device and from the device to the computer. iTunes only allows the former.

technology-focussed news sites in a way that makes it appear as if these venues are the *only* means for obtaining or streaming music online and managing personal digital collections. Thus, through narrative and discourse, the dominance of these venues is continually reinforced.

Another reason for the dominance of commercial Internet traffic is the persistence of industry efforts to influence national and transnational media policy. The MPAA, RIAA, and IFPI are perhaps the most high profile in this regard, but they are joined by a diverse collection of other bodies and agreements that together lay claim to the control over the distribution of cultural production. These groups have been instrumental in pressuring governments to consider and sometimes implement laws that restrict the uses of various media beyond those intended (and sometimes permitted) by rights holders. In an effort to tip the balance of power toward rights holders and capitalist distribution paradigms transnational bodies such as the World Intellectual Property Organisation (WIPO) are combined with agreements such as the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) and the emerging Counterfeiting Trade Agreement (ACTA), which are themselves augmented by national variants such as Bill C-11 in Canada, the DMCA, the currently stalled Stop Online Piracy Act (SOPA) and Protect Intellectual Property Act (PIPA) in the US, the HADOPI laws in France, and the Digital Economy Act (DEA) in the UK. Even if these policy directions become law or not, I suggest that they are publicised in such a way that appears to foment chilling effects in online music downloading practices.

The Celestial Jukebox and the attendant political and litigious environment that supports its existence is a proprietary and closed space that enables content industries to control the distribution of content through profitable logic of exclusion—in the form of both technical and legal controls on the reproducibility of digital content—and expanded commodification—in the form of contractual relationships with listeners. For Burkart and McCourt, such an arrangement points the way toward a disempowering “‘pay-per-society” in which an intellectual commons is privatised and meted out by culture industries’ and ‘wherein each cultural artefact or useful piece of information delivered through a commercial network has a price attached to it’.³⁹ The Celestial Jukebox is a total commercialisation of culture; it restricts and tames the flow of cultural production, which Burkart and McCourt note was initially a largely autonomous and open practice in the early days of the Internet: ‘Before the Internet was widely

³⁹ Burkart and McCourt, ‘Infrastructure for the Celestial Jukebox’, pp. 350, 357.

diffused and commercialised', they note, 'peer-to-peer networking was the norm, not the exception, to online information flows'.⁴⁰

However, there are two further points to consider. First is that the Celestial Jukebox is still contested in many ways, and, I argue, not just at the level of access to cultural production. Second, it is not only the corporate music industry and its lobbying efforts that have seen the erection of walled gardens and the monitoring of intellectual property distribution. In many ways, phenomena such as music piracy that contest the dominance of the celestial jukebox in the realm of access do so through the same logic of privatisation and monitoring that Burkart and McCourt see as the exclusive terrain of commercial interests.

Private BitTorrent sites also limit access through membership requirements as they track and monitor the traffic of intellectual property, but in such a way that frustrates efforts to generate surplus value from audience surveillance. At the same time, the openness of publicly accessible sites and cyber lockers, while seeming to remedy concerns about freedom of access, also sees those same sites adopting many of the same tenets of Customer Relations Management in order to generate income, and often profit, from the activities of music listeners; they employ advertising and offer subscription-based services. Both public and private variants operate in such a way that impedes the final capitalist valorisation of intellectual property, but do so in a way that reflects and intensifies some of the disempowering practices of the Celestial Jukebox. This apparent paradox signals an ambivalence which in many ways impels us to rethink the relationship between media piracy and the capitalist music industry. So, when, Burkart and McCourt assert that '[t]he sharing communities enabled by P2P networks are economically, culturally, and technologically *incompatible* with the online music stores through which the recording industry hopes to control access to their properties', they seem to miss the many ways in which piracy and the Celestial Jukebox might in fact be mutually reinforcing paradigms, with each borrowing and reconfiguring aspects of the other to suit different needs and purposes.⁴¹ The relationship between the two is much closer, I argue, especially when we consider Olle Findahl's claim that '[i]t works like a large library with millions of tunes. But this music library is a virtual library. It does not exist in a specific place but its content is scattered all over the world but instantly available for everyone connected to the network' could just as easily describe the

⁴⁰ Ibid., p. 357.

⁴¹ Burkart and McCourt, *Digital Music Wars*, p. 49. (emphasis added)

celestial jukebox, even though in this context he is describing peer-to-peer filesharing and music piracy.⁴² Already several studies have suggested that the ‘sharing communities’ play an important, if indirect, role in increasing music sales and driving chart success, with avid downloaders acting as opinion leaders for radio markets, driving interest in new singles, or simply because those who chose to pirate do so because they are that committed to consuming music are also likely to be major music purchasers.⁴³ Thus, it is not only so much a matter of whether or not P2P and the Celestial Jukebox are incompatible. Rather, I think that the notion of their incompatibility is something that needs further scrutiny.

The relationship between piracy and the Celestial Jukebox is not a simple one of resistance versus cooptation, especially at the level of access to cultural production. My interest in this chapter thus shifts Burkart and McCourt’s focus on the access to the musical commodity as such, and expands their critique of ‘Customer Relations Management’ in order to see how it further entrenches the disempowerment of audiences not only through the restriction of access to cultural production, although this is important and will be addressed in more detail in Chapter Seven, but rather through the emphasis the Celestial Jukebox places on the commodification of audiences themselves. One of the ways to do this is to look at the wider context of the commodification of audiences in the Celestial Jukebox. In so doing, we can see that such a strategy is part of a much wider economic shift; the celestial jukebox is one expression among many that are reflective of shifts in the site of capitalist valorisation embedded within shifts from Fordist to post-Fordist economies.

AUDIENCE COMMODITY

The commodification of audiences is not unique to the Celestial Jukebox. Though commercial Internet endeavours may intensify and increase its scale, audience commodification, as a practice, has historical antecedents in other forms of data gathering and demographic studies about audiences. From a Marxist political economy perspective, Dallas Smythe’s important work on the audience commodity and broadcast television has new found significance as it analyses the role audience commodification has played in expand the territory of capital’s exploitative practices. Smythe set out to

⁴² Olle Findahl, ‘Thieves or Customers?: Filesharing in the Digital World’ <http://xml.nada.kth.se/media/Research/MusicLessons/Reports/Thieves_or_customers.pdf>.

⁴³ Sean Michaels, ‘Study Finds Pirates 10 Times More Likely to Buy Music’, *The Guardian*, 21 April 2009, section Music <<http://www.guardian.co.uk/music/2009/apr/21/study-finds-pirates-buy-more-music>> [accessed 29 February 2012].

challenge what he saw as ‘subjective and idealist’ approaches to analysing the role of media within capitalist social relations.⁴⁴ These approaches, from his perspective, focussed too much on media content, ideology, and messages that, despite being a crucial point of analysis, obscured other ways of thinking about the media’s role in supporting capitalist relations and expansion. Instead, Smythe sought to refocus the question—‘what is the principal product of the mass media?’—in an effort to move away from the messages and meanings, manipulations and entertainments, which he saw as primarily the ‘effects’ or ‘purposes’ of media rather than its product. As for the ‘actual’ product of the media Smythe’s answer was simple, the audience.⁴⁵ My purpose here is not to debate the primacy of any one perspective on the media’s product, but rather to connect the emergence of the Celestial Jukebox, and its contestation via music piracy, to a broader discourse on the role that audiences play in the political economy of the Internet. I do so in order to lay the groundwork for an analysis of how piracy cuts across the logic of audience commodification and the celestial jukebox, at times supporting its goal of capital accumulation and at times subverting it by refocussing the uses of audience data to create autonomous spaces for the distribution of cultural production.

Smythe’s argument was that advertising in mass media was a crucial part of the commodity culture’s management of consumer demand—mass media was involved in the ‘production of consciousness with two mutually reinforcing objectives’: producing desire for commodities and docility toward state policy.⁴⁶ It follows that the success of the media’s efforts in this regard are tied directly to a form of ‘audience power’. And just as with Marx’s ‘labour power’, from which Smythe’s new term borrowed its name, ‘audience power’ was ‘produced, sold, purchased and consumed’ among media companies and advertisers as a commodity with a price, it could therefore be seen as somewhat analogous to a form of labour.⁴⁷ According to Vincent Mosco, the process of producing and exchanging the audience commodity ‘brought together a triad that linked media, audiences, and advertisers in a set of binding reciprocal relationships. Mass media programming is used to construct audiences; advertisers pay media companies for access to these audiences; audiences are thereby delivered to advertisers’.⁴⁸

⁴⁴ Smythe, p. 23.

⁴⁵ Ibid.

⁴⁶ Ibid., pp. 24–26.

⁴⁷ Ibid., p. 26.

⁴⁸ Vincent Mosco, *The Political Economy of Communication: Rethinking and Renewal*, 1st edn (Thousand Oaks, CA: Sage Publications, 1996), p. 148.

The same can be said for the great economic successes within the paradigm of ‘Web 2.0’, which from the outset have also relied on harnessing audience power in order to generate surplus value. Though framed in terms of audience emancipation through active engagement—‘user generated content’, participatory culture, and so forth—the road to profit in the Internet era is paved with the labours of audiences that exchange their audience power for opportunities, specifically those that new platforms for sharing information, communicating, and spreading cultural production (their own, and that of others), afford. Crucially though, as Nicole Cohen notes, there has been a temporal compression in the way that Web 2.0 harnesses audience power: ‘the work of [Smythe’s] audience came after content was produced. The television program, for example, is produced and then broadcast, during which time the audience’s work would begin. In contrast, Web 2.0 models depend on the audience producing the content’.⁴⁹ I suggest though that the contrast is not as stark as Cohen suggests here. Rather than instantaneous valorisation *supplanting* older broadcast paradigms, there is within Web 2.0 an augmentation or expansion of the broadcast logic of the commodification of audiences. This augmentation is based around *both* the instantaneous and delayed valorisation of audience power. Audience activity creates informational content, much of which circulates without remuneration (for the user or for others) and is valorised in ‘real time’ as it dynamically (re)constitutes Web 2.0 content as such. But audiences are also involved in the production of themselves as informational commodities to be valorised *afterwards* as their data and activity are scrutinised and packaged.⁵⁰ This redoubling of the valorisation of audience power happens because the logic of Web 2.0 requires that in order to participate in the production of their ‘own’ content—whether YouTube videos, Tweets, or Facebook statuses—users must first submit information about themselves in the form of demographic information, email addresses, credit card numbers, and so forth. And this is in addition to the already considerable amount of information collected by the infrastructure providers: ISPs collect location and internet traffic data, commercial computer operating system providers require that their technologies be licensed, often connecting to company servers in order to authenticate and provide software updates, and Internet browsers often collect anonymous statistics about their users by default. Adding to this already significant collection of information

⁴⁹ Nicole S. Cohen, ‘The Valorization of Surveillance: Towards a Political Economy of Facebook’, *Democratic Communiqué*, 22 (2008), 5–22 (p. 8).

⁵⁰ Of course, there is still a temporal compression in this latter stage as computing power and communication technologies have sped up the process of the scrutinising and dissemination of information about audiences

about audiences, the informational content that *is* produced ‘knowingly’ by audiences—emails, Tweets, playlists, statuses—is further scrutinised and compiled into useful information in the production of the audience commodities: ‘free’ email is scanned for keywords to customise advertising, as is Facebook content and the links between users; the same is true for almost all other purportedly free services. Advertising, and the compiled and packaged information about audiences which precedes it, remains, just as in Smythe’s time, the key to the exploitation of audience power, even if this exploitation has shifted registers and now expresses itself in the production of publicly consumable ‘user generated content’.

The same is true for the Celestial Jukebox. ‘Customer Relations Management’ is an expression of commercial online music distribution’s attempts to harness audience power as a primary strategy in the accumulation of capital. All of the services noted above rely in one way or another on the constant creation and nurturing of audience power. Whether it is through attention to advertising, the monitoring and tracking of purchasing habits in order to ‘push’ content to users, or through constantly encouraging users to openly communicate playlists, listening preferences, and purchases, customers are enlisted in the production of themselves as audience commodities. As commodities, their activities become the baseline precondition for profit and the financial successes of these services.

Piracy, too, valorises audience power in ways that are similar to the Celestial Jukebox. Public BitTorrent sites require constant audience participation in order to attract advertisers to their sites, and they also compile information about these users which is drawn from statistics about user activity, the media shared, the traffic generated, and the profiles of those users who register to upload torrents. The mechanisms for doing so are significantly less sophisticated than those available to the actually ‘legal’ Celestial Jukebox. Moreover, since torrent uploaders are, for reasons largely related to the legality of media filesharing and the potential for punitive measures, less likely to divulge personal information and thus the information that is available is considerably less useful to advertisers in generating the targeted advertising characteristic of other commercial Web 2.0 endeavours. In combination with the questionable legality of these sites, this leads to advertising focussed much more on gambling, sex, and quick-fix money earning schemes and not the more ‘legitimate’ commodity and service advertising associated with the legal commercial web. Indeed, Frederick Neij of the Pirate Bay was open about the differences between ‘legitimate’

advertising, and the type of advertising available to sites like the Pirate Bay when he noted: 'it's the legal grey zone ... the advertising prices drop'.⁵¹ Despite these superficial dissimilarities however, the logic of the exploitation of audience power remains, and as such it implicates public torrent sites within the broader commodification of audiences online, even as their users go about the business of downloading media without regard for the valorisation of capital through the sale 'primary' commodity, the digital media file.

Private BitTorrent filesharing appears to alter the contours of the audience commodity-surplus value arrangement. Audience tracking and analysis are also the preconditions for the functionality of private BitTorrent sharing; private sites track and monitor members' activity in a variety of ways while for the most part eschewing advertising *qua* revenue generation. At the same time, the injunction to participate in creating the informational content of the site is in some senses much stronger than with 'legal' commercial sites or public sites. Because members are *required* to upload in order to maintain their memberships, with further incentives to participate in the form of advancing through the various user class levels, gaining seeding bonuses, and so forth, private sites mandate participation in a way that commercial and public sites do not: anyone using Spotify, iTunes, YouTube, or Google for that matter, is only required to engage in either the financial transaction involved in the subscription or to heed advertising (or not). Use of commercial Internet services does not usually require explicitly that audiences engage in any productive activity at all, one can maintain a Google, Facebook, or Twitter account without actually sending or receiving email, posting a status or having 'friends', or sending out a tweet.

What is ultimately at stake in an analysis of private sites is the end result of the valorisation of audience power. In commercial online media audience power is valorised in two meaningful ways. On the one hand, in the case of Web 2.0 especially, more tweets, greater Facebook activity, more published play lists, and so on, increase the perceived utility of the service to users in much the same way that greater advertising revenue for broadcast television might result in greater investment in programming. Concomitantly, as audiences are valorised as informational commodities, profits and capital accrue to the company providing the service. The same would be true of public BitTorrent sites: the greater the activity of users, the more useful the site becomes to

⁵¹ *Pirate Bay Talks to Hollywood: Make Your Own Torrent Site* <<http://www.youtube.com/watch?v=VaqrhYP1g8>> [accessed 29 February 2012].

them and the greater the potential for advertising revenue for the site operators.

For private sites however, audience power is valorised almost entirely in the enhanced utility of the sites. The more torrents uploaded and continuously seeded, incentivised by the ratio requirements, the broader the selection of media available to members. With no advertising revenue sought, private sites can thus be seen as a venue in which the labours of the membership are not valorised as capital, the benefits of which are ultimately revealed as enhanced use value that is spread across and to the entire membership. What is important here is how private sites valorise audience labour through the same set of processes—tracking, monitoring, informationalisation—as do commercial variants of the Celestial Jukebox and public torrent sites, yet at once they resist the valorisation of this labour into capital for the privilege of the site operators *and* they free the musical ‘objects’ from their status as surplus-value bearing commodities. Commercial online music distribution restricts access to cultural production by commodifying audiences as a means to reinforce the logic and profitability of the regime of intellectual property through paying for licensing and copyright costs and ultimately profiting themselves from this arrangement. Public sites valorise audience labour by generating revenue, ostensibly to cover operating costs and potentially profits, for site owners, and they do so by offering relatively unrestricted access to cultural production in a way that resists the logic of intellectual property. Private sites resist both the logic of intellectual property rights and the valorisation of audience labour as capital while at the same time doing so in a way that actually increases restrictions on access to cultural production through the membership requirement and the need for technical expertise required to maintain membership status.

THE SOCIAL FACTORY

The emergence of a Celestial Jukebox is part of a much broader shift whereby capitalist accumulation strategies are directed toward the immediate valorisation of information and networks. In order to fully understand the role that audience commodification in digital media distribution plays in contemporary life it is useful to situate media piracy within the wider political-economic conditions of the ‘social factory’. Autonomist Marxists offer up the term, which describes the ways in which aspects of life that have hitherto been peripheral to capitalist valorisation processes become fully subsumed in, and increasingly integral to, the processes of capital

accumulation.⁵² The expansion of the social factory necessarily involves moving beyond the industrial labour that characterised the manufacture of rivalrous commodities and toward the valorisation of what Autonomists call ‘immaterial labour’, or the type of labour involved in the creation of communication, information, software, knowledge, ideas, affects, and so forth. Since audiences can be said to perform a type of immaterial labour within the social factory—whether or not they use legal or pirate distribution channels—it is important to attend to the ways in which piracy supports or subverts capitalist accumulation. This is because even though

the digital and network revolution has attacked traditional monopoly rents (used to quite stable ‘territories’) and forced them to reinvent their strategies. The common reaction was to reclaim a stronger regime of intellectual property. On another level, capitals were forced to find new material and immaterial territories to exploit.⁵³

Piracy appears to have been largely successful at liberating the ‘objects’ of cultural production—that is, the audio, video, image, and software files themselves—from their status as surplus value-bearing commodities and effectively challenging the ‘monopoly rent’ of intellectual property. Despite this success, the imposition of harsher intellectual property regimes and the development of ‘new territories’ of audience surveillance and commodification have had a mitigating effect. Furthermore, piracy’s resistant gesture is tempered and potentially undermined by factors immanent to changes *in its own* various organisational structures, expressed in the use of advertising, user tracking processes, and logics of exclusion. Here, piracy as a form of outright resistance is revealed to be an ambivalent resistance. In the case of openly accessible pirate sites, such as the The Pirate Bay, Torrentz, or KickAssTorrents, or file-lockers such as MegaUpload or Rapidshare, there is an open support for the logic of capitalist accumulation strategies which are based on the valorisation of audiences as informational commodities through advertising or subscriptions, even though the sites appear to reject the legitimacy of intellectual property. But, as is evident in the private BitTorrent paradigm, audiences, though similarly informationalised, are valorised in such a way that their use value is prioritised over their exchange value as informational

⁵² Mario Tronti, *Operai e capitale* (Workers and Capital) (Turin: Einaudi, 1966); Rosalind Gill and Andy Pratt, ‘In the Social Factory?: Immaterial Labour, Precariousness and Cultural Work’, *Theory, Culture and Society*, 25 (2008), 1–30.

⁵³ Matteo Pasquinelli, ‘Immaterial Civil War: Prototypes of Conflict Within Cognitive Capitalism’, *Generation Online*, 2006 <<http://www.generation-online.org/c/fcimmateriallabour5.htm>> [accessed 5 February 2012].

commodities.

Autonomist Marxist theory and practice is concerned to understand and critique capital's expansion beyond the factory as the immediate site of production. For autonomists, such an expansion follows Marx's observation that capital acts as a circuit that subsumes the entirety of the social world under its logic.⁵⁴ Capital, which depends on the labour power of individuals to generate surplus value also requires the continuous reproduction of that labour power. Importantly, this idea was seized upon by Marxist feminists to note the role that child rearing, housework, care, and so forth plays in the reproduction of male labour power.⁵⁵ From the autonomists' perspective, the reliance of capital on such reproductive and 'indirect' labours (or labours that the status quo cannot recognise as productive) reveals the 'socialisation of capital' in which 'the movement of individual capital turns out to be a part of the total movement of social capital'.⁵⁶ Capital and labour are thus intertwined in ways that stretch beyond the wage relationship to include all manner of activities that support, increase, and expand the capacities of labour power. In this way, the entirety of society is subsumed by capital as value producing activity. Hence the emergence of the 'social factory', in which, as Mario Tronti famously noted, 'the entire society now functions as a moment of production'.⁵⁷ In the social factory, reproductive labours, the distribution and consumption of commodities, creative practices, and affective and communicative gestures each come to mark points in the circuit of capital where value can be further extracted.

The Celestial Jukebox and the commodification of audiences via the valorisation of audience labour is one of these points. Here, as Paolo Virno notes,

[w]hat is learned, carried out and consumed in the time outside of labour

⁵⁴ Karl Marx, *Capital, Volume 1: A Critique Of Political Economy*, trans. by Ben Fowkes (London: Penguin Classic, 1990). See especially the chapter on 'Primitive Accumulation' (pp. 873–874) and Section II of the 'Appendix: Results of the Immediate Process of Production' (pp. 975–1059).

⁵⁵ According to Nick Dyer-Witford, 'Mariarosa Dalla Costa and Selma James, anticipating themes now popular in feminist political economy, argued that within the social factory, the reproduction of labour power occupied a crucial but unacknowledged role. Without the—to male theorists—invisible labour process of child-bearing, child-raising, cooking, shopping, education, cleaning, caring for the sick, emotional sustenance, in short, "housework", labour power would not be ready for work each morning. This vital reproductive labour, traditionally female and "unwaged", was subordinated to the traditionally male breadwinner. Thus the wage, mediated by patriarchal authority, commanded and disguised unpaid labour time not only in the workplace but also outside it'. Nick Dyer-Witford, *Cyber-Marx: Cycles and Circuits of Struggle in High-technology Capitalism* (Urbana: University of Illinois Press, 1999), p. 67. See also Mariarosa Dalla Costa and Selma James, *The Power of Women and the Subversion of the Community* (Bristol: Falling Wall Press Ltd, 1975).

⁵⁶ Mario Tronti, 'Social Capital', *LibCom* <<http://libcom.org/library/social-capital-mario-tronti>> [accessed 6 February 2012].

⁵⁷ Tronti, 'Social Capital'.

is then utilised in the production of commodities, becomes a part of the use value of labour power and is computed as profitable resource. Even the greater “power to enjoy” is always on the verge of being turned into labouring task.⁵⁸

Legal digital music distribution is embedded within the expansive logic of the social factory. Listening to music is a practice that was once largely outside the reach of surplus value creation—the purchase of the recording commodity via the cash transaction was the extent of this reach. But, listening has itself become subsumed as value and is extracted directly through listeners’ engaging in a type of audience labour as they submit data about themselves, pay attention to advertising, enter into contractual arrangements with music services, and ultimately contribute to their own informationalisation through the sharing of public profiles, playlists, and communication. Driven largely by the desire to enjoy music consumption and then communicate this enjoyment, which for millennia has been a major component of non-work activity, within the context of the Celestial Jukebox listeners often find themselves unwittingly implicated in the direct production of themselves as informational commodities. The disempowering implications of this, I suggest, go far beyond the ultimate contractualisation of access to cultural production—the dystopian ‘pay-per-society’ imagined by Burkart and McCourt. They stretch into the very fabric of one’s private mental and corporal life, colonising and thus limiting human activities in a cold economic calculus that envisions these very activities as only so many points for the expropriation of value. It is thus crucial to inquire into the specific ways in which piracy might offer the potential for resistance within this scenario. One way to address this question is to attend further to the nature of the type of labour that is actually performed by audiences.

IMMATERIAL LABOUR

Since, as Smythe noted with regard to broadcast television, audience power is valorised as an informational and communicative commodity within the Celestial Jukebox, audience labour can thus be conceived of as a form of labour that is proper to post-Fordism and the social factory. It is in many ways an example of what autonomists call ‘immaterial labour’. The social factory emerges and expands alongside the

⁵⁸ Paolo Virno, ‘General Intellect’, *Generation Online* <<http://www.generation-online.org/p/fpvirno10.htm>> [accessed 5 February 2012].

‘informatization’ of advanced capitalist economies as production processes in these economies shift from their foundations in industrial manufacturing towards ‘information economies’.⁵⁹ In this scenario, the capacities of rapid networked communication become crucial in the coordination of global production. As a result, a new emphasis is placed on the capture of information and its manipulation toward value-producing ends. ‘Immaterial Labour’ thus names the types of labour that comes to typify value producing activity within the context of an informatised economy. According to Maurizio Lazzarato, there are two primary articulations of this labour. The first refers to that labour directly related to the production of ‘informational content’, ‘it refers directly to the changes taking place in workers’ labor processes in big companies [...] where the skills involved in direct labor are increasingly skills involving cybernetics and computer control’.⁶⁰ Such labor involves the design of communication technologies and structures along with their operation, maintenance, and management and is characteristically the domain of the contemporary ‘knowledge worker’, the software programmer, information technology specialist, public relations person, social media consultant, and so forth. The second aspect of immaterial labour refers to that labour which, ‘produces cultural content’ but which is ‘not normally recognized as “work” [...] the kinds of activities involved in defining and fixing cultural and artistic standards, fashions, tastes, consumer norms, and, more strategically, public opinion’.⁶¹

Conceptually then, immaterial labour thus moves beyond the narrow parameters of the labour of knowledge workers and those employed directly in the creation of informational or cultural content—software and hardware designers, computer coders, and technical support, to name a few—to include the wide variety of productive activities that constitute our symbolic, informational, and communicative environments. Increasingly, these activities are performed by audiences and media consumers as they contribute new cultural content through a variety of largely commercial network media platforms such as YouTube, Twitter, Facebook, and so on. As a result, the traditional division between media producers and consumers is said to have been challenged through the rise of what has been variously called the ‘prosumer’, ‘produser’, ‘citizen media’, and so on.⁶² This novel scenario has captured the imagination of scholars from across disciplines as they seek to comprehend the specific materiality, the political potential, and the continued role of power and domination within the collapsing

⁵⁹ Hardt and Negri, *Empire*, p. 280.

⁶⁰ Lazzarato, p. 134.

⁶¹ *Ibid.*, p. 133.

producer/consumer binary.⁶³ Much of this scholarship does tend to focus however on the 'produsage' of cultural content in the form of mash-ups, remixes, and other more easily discernible forms of 'user generated content'. It does not, typically, take up the role that audiences play in their own commodification, nor the potentials for resistance at this level.

The audience labour involved in both the Celestial Jukebox *and* media piracy can be considered immaterial according to the definitions noted above. As Tiziana Terranova notes, such labour is largely 'free' in the sense that it is unwaged, just as in Smythe's model, and is made up of activities that have not traditionally been considered work:

[L]abor on the Net includes the activity of building Web sites, modifying software packages, reading and participating in maintaining lists, and building virtual spaces [...]. Far from being an 'unreal', empty space, the Internet is animated by cultural and technical labor through and through, a continuous production of value that is completely immanent to the flows of the network society at large'.⁶⁴

This means that the labour of online audiences is itself the basis for the existence of the Internet, or at the very least, the World Wide Web: audience labour brings into existence the very network that in many cases ultimately exploits this free labour. It is largely for this reason that Terranova reminds us that '[l]abour is not equivalent to employment'.⁶⁵ The labour of audiences in the Celestial Jukebox and media piracy is largely of the second variety noted by Lazaratto and expanded on by Terranova. As Hesmondhalgh and Baker note in their analysis of television production, one must be careful not to equate the specificities and political potentials of one type of immaterial labour with those of another; the material conditions of the symbolic manipulation computer

⁶² As others have noted though, this division itself is rather dubious because, at least at the level of the creation of cultural content, readers bring as much to texts as do authors. If we are to follow Foucault or Barthes, there is a co-production of meaning in the act of 'consuming' media. See Roland Barthes, 'The Death of the Author', in *Image, Music, Text* (New York: Noonday Press, 1988), pp. 142–148 and Michel Foucault, 'What Is an Author?', in *The Foucault Reader* (New York: Pantheon Books, 1984), pp. 113–138.

⁶³ For two fairly disparate views on producers/consumers see Christian Fuchs, 'Web 2.0, Prosumption, and Surveillance', *Surveillance and Society*, 8 (2011), 288–309 and Henry Jenkins, *Convergence Culture: Where Old and New Media Collide*, Revised edn (New York: New York University Press, 2008).

⁶⁴ Tiziana Terranova, 'Free Labor: Producing Culture for the Digital Economy', *Social Text*, 63 (2000), 33–58 (p. 34).

⁶⁵ Tiziana Terranova, *Network Culture: Politics for the Information Age* (London; Ann Arbor, MI: Pluto Press, 2004), p. 88.

programmers is markedly different from the affective labour of a nurse.⁶⁶ The material conditions and nature of the free labour performed by music listeners and pirates might be considered different from than that performed by an information technology professional, especially since one obviously carries credentials and a wage. (Though the high level of technical proficiency necessary for participation in private BitTorrent piracy suggests that, for this example at least, the skill sets necessary for working in an IT capacity and those necessary for accurately encoding and transmitting audio or video content are largely similar, even if the material conditions of the labour are not).

Within the celestial jukebox, audiences create cultural content in their shared playlists, social profiles, linking, commentary, and communication and also as they submit data about themselves that is ultimately packaged into informational commodities. Articulations of immaterial labour within the various forms of media piracy are similar: the cultural content on a public and private torrent sites—the torrent files, profiles, commentary, and communication—are all the products of the creative capacities of audiences to upload and share information about themselves. In public sites this labour is also packaged into informational commodities to gain advertising revenue for the sites. File lockers are similar in that they are advertising-funded but also include the option for users to subscribe to their service, which is another component of the legal commercial Celestial Jukebox. By relying on an exchange of information and sometimes money for access to music in order to attract advertisers, commercial online music services, *and* public BitTorrent sites and file-lockers fully subsume listeners as immaterial labourers, since they are both the subjects of the informational commodity and the commodity objects as such.

In contrast, the activities of members of private BitTorrent sites are not normally valorised through advertising or subscription models, even though they labour in a way that is largely an identical articulation of that which is performed in the Celestial Jukebox, on public sites, and file lockers. Cultural and communicative content on private sites is the result of the active participation of the membership in seeding torrents, participating in forums, and sharing profile information. Information about the membership—especially those elements of the torrent tracking software that monitor members upload-download statistics—is crucial to maintaining the sites' media catalogues due to the incentive of the share ratio. But, the immaterial labour of private

⁶⁶ David Hesmondhalgh and Sarah Baker, 'Creative Work and Emotional Labour in the Television Industry', *Theory, Culture and Society*, 25 (2008), 97–118.

site members is valorised in a way that departs from exchange value since in most cases members are not saleable informational commodities. Instead, by refocussing audience labour in the production of use values, the labours of the membership directly intervene in the process of circulation as they aid in the expansion and deepening of a site's media catalogue and ultimately in the creation and maintenance of an autonomous space for communication and the free circulation of cultural production. In this way private sites appear to reject the logic of audience commodification at the same time as they reject the logic of intellectual property, regardless of what the intent or motive may be.

REFUSAL

Without audiences' submission to the monitoring and tracking of customer relations management, the ability of the Celestial Jukebox to valorise them as capital is threatened. In this way, the real engine of development of commercial online media distribution is in fact the willingness of audiences to involve themselves in the 'unwaged' or 'free' labour of communicative practices and the submission of data. As long as audiences see the services provided by commercial online media distribution as fulfilling their wants and needs and, crucially, not appearing to demand too much of them in return, then the Celestial Jukebox will continue to be successful. But the Celestial Jukebox, as Burkart and McCourt stress, is detrimental to the future of access to cultural production because it upholds the regime of intellectual property that sees culture and audiences alike as only so many commodities to be exploited. Such a logic imposes limits that enclose culture through the creation of artificial scarcity via what amounts to the imposition of rent on cultural production. It prevents building on previous cultural production, a practice which has formed the very basis of all artistic, intellectual, scientific, and communicative endeavours from time immemorial. How does piracy intervene in this scenario? Clearly it does so at the level of intellectual property, by liberating cultural production from its status as commodity. But as we have seen with public BitTorrent piracy and file lockers, it does so at the same time as it further entrenches the logic of audience commodification. Therefore, what potentials exist in piratical practices for resisting the enclosure of culture and knowledge by way of audience commodification?

There is a threefold antagonism between (1) audiences' desire for increased access to knowledge, information, and cultural production, (2) capital's need to create boundaries and artificial scarcities in order to control this access as a means of

generating wealth, and (3) the potential for the degradation of culture due to limits placed on its circulation and uses by intellectual property. This antagonism obtains regardless of whether or not it finds expression in audiences' actions. More simply stated, because of the threat to cultural development represented by intellectual property, the conditions that allowed for the diversity of collection of cultural production that audiences desire and enjoy today via legal online distribution channels is under threat of erasure by the very copyright regimes that are supported by audiences' willing participation in the Celestial Jukebox. The lack of widespread resistance to audience commodification does not mitigate the antagonism, and in fact, it intensifies its effects: the more that capital is able to convince (or coerce) audiences to embrace the celestial jukebox, the stronger the grip of intellectual property. Piracy, I suggest, is in general an expression of this antagonism and as such has driven capital to restructure and develop increasingly draconian technical and juridical means by which it can retain control over the distribution and use of cultural production through the opportunities afforded by network technologies to extract surplus value from the activities of audiences.

For many, this antagonism is expressed solely through piracy's rejection of the legitimacy of intellectual property. Just as cassette swapping had done before, widespread piracy initially demonstrated that listeners were more than willing to share music without concern for the remuneration of rights holders, regardless of whether they were the artists themselves or corporations. With the emergence of online piracy, capital's response to this affront to property was, as I noted in the introduction, first to utilise the existing legal structure to bring lawsuits against companies and organisations that helped facilitate such audience behaviour, and then to bring lawsuits against individual filesharers themselves. Such a strategy found customers of the media industries cast as antagonists in a highly public legal battle over control of information distribution. As John Kennedy, former president of the IFPI and president and Chief Operating Officer at Universal Music International noted: 'one of the great ironies is that our enemy in this is our consumer and one of the rules that anyone in marketing knows is not [to] make an enemy of your customer. We have no choice, because frankly, when the music is being consumed for free they are no longer customers that we can look after'.⁶⁷ These initial lawsuits were taking place at a time when legal alternatives to

⁶⁷ John Kennedy quoted in Jamie King and League of Noble Peers, *Steal This Film* (England: Artefact Films, 2007).

piracy were underdeveloped and the legality and moral acceptability of filesharing were still subject to much debate. Working in consort with the various legal battles were two other strategies: (1) the deployment (and then rejection, at least in the case of music) of DRM and intrusive anti-copying technologies such as the Sony Rootkit noted earlier and (2) the mobilisation of anti-piracy discourses in the form of fear mongering and moralistic propaganda directed at movie goers and students. Of course, the recorded music industry has since restructured and the emergence of services that focus on the commodification of audiences has been one of the major innovations of this readjustment. So too have there been changes in juridical and policy structures that, working in consort with the 'market based' solution of the Celestial Jukebox, seek to contain antagonisms over intellectual property by driving audiences toward the services that, in addition to adhering to the logic of intellectual property, also commodify the very audiences they serve.

One of the autonomists' crucial innovations was to foreground the constitutive role that the antagonism between the working class and capital plays in capital's expansion and restructuration.⁶⁸ 'Capital', writes Antonio Negri, 'has often accepted that the working class struggle is the motor of development—and has even accepted that proletarian self-valorisation should dictate the pace and nature of development'. This concept is clearly visible in the antagonisms between media audiences and commercial media distribution: audiences within capitalist economies have been more or less trained to seek maximum self advantage and thus to procure media (or any other commodity) in an efficient and cheap manner; to this capital responds by developing ways to harness this antagonism and bring it back within the fold of accumulation and profit. Thus, noting that audiences desired to share and communicate about media, capital restructured around notions of 'free' (or cheap) access at the level of the media content, a process largely enabled by the general decline in costs of creation and reproduction of media content afforded by network technologies.⁶⁹ But the value that was once generated by the sale of the media commodity, though still a major part of the music

⁶⁸ Mario Tronti, 'The Strategy of Refusal', in *Autonomia: Post-political Politics*, ed. by Sylvère Lotringer and Christian Marazzi (Cambridge, MA: Semiotext(e), 2007), pp. 28–35; Antonio Negri, 'Domination and Sabotage: On the Marxist Method of Social Transformation', in *Books for Burning: Between Civil War and Democracy in 1970s Italy*, trans. by Bove Arianna (New York: Verso, 2005), pp. 231–290.

⁶⁹ See Chris Anderson, 'Free! Why \$0.00 Is the Future of Business', *Wired*, 2008 <http://www.wired.com/techbiz/it/magazine/16-03/ff_free?currentPage=all> [accessed 6 February 2012] and 'PRESS KIT -- Moore's Law 40th Anniversary', *Intel.com* <http://www.intel.com/pressroom/kits/events/moores_law_40th/index.htm> [accessed 6 February 2012].

download services, was largely transposed to extraction of value via the packaging of audience desires and activities into informational commodities. This, I suggest, is an expression of what Lazzarato means when he suggests that '[f]or economics there remains only the possibility of *managing and regulating the activity of immaterial labor* and creating some devices for the control and creation of the public/consumer by means of the control of communication and information technologies and their organizational processes'.⁷⁰ Within a networked economy that finds the costs of creation and duplication of digital media content decreasing, profitable ventures—and successful economies—will be those that find ways to create 'devices for the control and creation' of audiences; such devices today are found in transnational and national IP policies, the legal system, technical surveillance, domain seizure and blocking, and, importantly, network throttling via deep packet inspection. Each of these work in consort with the others to create an environment of control and restriction in the name of capital accumulation.

The antagonism between piracy and the regime of intellectual property thus reveals to us capital's strategies (and techniques) for controlling and creating audiences (the 'public/consumer', the immaterial labourers) by turning them into commodities. Historically, this antagonism emerges when capital, faced with the continuing possibility of revolt by labour, resorts to what Nick Dyer-Witheford notes is increased 'state intervention and technocratic control'.⁷¹ This is a strategy clearly visible in the rapid and widespread intensification of both national and transnational intellectual property policies that I noted in the introduction each of which seek to expand capital's power to limit communication technologies through a combination of technological surveillance and policing. Each of these measures seeks to coordinate the restricted usage and distribution of cultural production to parameters that clearly benefit rights holders—themselves an increasingly smaller number of transnational media conglomerates—and effectively drive audiences into juridically enforced valorisation as the commodities of legal online media firms.

The intensification of state intervention is already seen in the various lawsuits that have been brought against pirate sites and individuals and in the deployment of various state police forces in the enforcement of national policies. The Pirate Bay, QuebecTorrents, and MiniNova cases noted earlier are all examples, in which state legal

⁷⁰ Lazzarato, (p. 146). (emphasis added)

⁷¹ Dyer-Witheford, *Cyber Marx*, p. 67.

apparatuses were used as a means to enact the will of the content industries while, especially in the case of the Pirate Bay, the police were deployed as a means of supporting these apparatuses through a show of force.⁷² For the individuals, the state's role in supporting a legal infrastructure that allows for the suing of the elderly, the young, and the naive—largely as a means of 'setting an example' for other would-be pirates—are particularly egregious examples of the use of state power to attempt to drive audiences toward the use of legitimate services and ultimately toward their own commodification.⁷³ Enforcement of national and transnational policies thus hinges on a globalised juridical and technological infrastructure that allows for and encourages—and in some cases compels—the surveillance, detection, and punishment of infringement. In line with Burkart and McCourt's prediction of a 'pay-per-society', recorded music consumption thus becomes fully subsumed in the logic of a technologically and juridically bounded market that is, as often as not, maintained and supported through the monopoly on violent force held by the state.

What drives this multifaceted intensification is the fact that the capacities associated with immaterial labour are not always actualized in a surplus value-producing labour activity. They consistently escape capture by capital. Music listening, recorded or otherwise, has for centuries taken place outside the realm of advertising and paid subscriptions, of contracts and the submission of information. Even when purchasing an LP or CD, no exchange of information was required and no all-encompassing surveillance mechanism existed to track and monitor listening or sharing practices (at least until the rise of credit and debit payments, and even then the information paled in comparison to that information gathered in the celestial jukebox). Piracy can be seen as an adaptation and continuance of the practice of experiencing music outside of the watchful eye of capital's colonisation of life. The capacities of audiences to share and communicate, even in the Internet age, are thus 'virtual' and not 'purely functional to a new historical phase of capitalism'.⁷⁴ Since 'capitalist production now requires an entire network of social relations, these [relations] constitute so many points where its operations can be ruptured' because when capital does harness the

⁷² Quinn Norton, 'Pirate Bay Bloodied But Unbowed', *Wired*, 2006

<<http://www.wired.com/science/discoveries/news/2006/06/71089>> [accessed 29 February 2012].

⁷³ Xenj Jardin, 'RIAA Attacks 10-yr-old Girl (7 at Time of Alleged Download)', *Boing Boing*, 2007 <<http://www.boingboing.net/2007/03/25/riaa-attacks-10yroid.html>> [accessed 29 February 2012]; John Borland, 'RIAA's Case of Mistaken Identity?', *Cnet*, 24 September 2003

<<http://news.cnet.com/2100-1027-5081469.html>> [accessed 29 February 2012].

⁷⁴ Tiziana Terranova, *Network Culture*, p. 83.

power of immaterial labour it can only do so partially.⁷⁵ In channelling productive capacities of immaterial labour into specific areas for the extraction of surplus value, there is always a remainder that escapes the logic of profit, and even when profits do obtain, they are only ever disproportionate and selective, an uneven distribution of the spoils of collective creative production.⁷⁶

As capital comes more and more to rely on the valorisation of immaterial labour by exploiting various aspects of life as sites of the production of value, there is thus a concomitant multiplication of the possible points for articulating resistance. This is because, as Dyer-Witheford emphasises,

[b]y informing production, capital seems to augment its powers of control. But it simultaneously stimulates capacities that threaten to escape its command and overflow into rivulets irrelevant to, or even subversive of, profit. Indeed, insofar as the increasingly “communicative” texture of the modern economy discloses and intensifies the fundamentally “socialised”, co-operative nature of labour, it comes into friction with capital’s hegemony.⁷⁷

Furthermore, for Hardt and Negri, ‘[t]he immediately social dimension of the exploitation of living immaterial labor immerses labor in all the relational elements that define the social but also at the same time activate[s] the critical elements that develop the potential of insubordination and revolt through the entire set of laboring practices’.⁷⁸ In essence, Mario Tronti notes, ‘capitalist exploitation [...] provokes workers’ insubordination’.⁷⁹

I have noted above that it is through the very same processes of surveillance, monitoring, and tracking that the Celestial Jukebox, public, and private BitTorrent piracy valorise the labour of audiences. In the former two, that labour is valorised through the exchange value of the audience commodity as a site of profit; in the latter however, I noted that audience labour materialises as greater use values for members of private sites. In this way, we can see private BitTorrent piracy as a form of insubordination in excess of that which is found on publicly accessible pirate venues because private BitTorrent piracy short circuits the valorisation of *both* intellectual property and audience commodities.

⁷⁵ Dyer-Witheford, *Cyber Marx*, p. 68.

⁷⁶ Tiziana Terranova, *Network Culture*, p. 84.

⁷⁷ Dyer-Witheford, *Cyber Marx*, p. 85.

⁷⁸ Hardt and Negri, *Empire*, p. 29.

⁷⁹ Tronti, ‘The Strategy of Refusal’, (p. 31).

For Autonomist Marxism, one of the crucial strategies for actualising a rupture in the antagonistic relationship between labour and capital has been the enduring concept of the refusal of work.⁸⁰ The refusal of work portended a potential exodus from the exploitation and alienation of capitalist social relations because, according to Sylvère Lotringer and Christian Marrazzi,

[o]nly when the worker's labour is reduced to the minimum is it possible to go beyond, in the literal sense, the capitalist mode of production. Only when “non-worker's labor” becomes a generalized reality and enjoying life a productive fact in itself, does freedom from exploitation become not only possible but materially achievable.⁸¹

In his highly influential essay ‘The Strategy of Refusal’ published in 1965, Mario Tronti had emphasised that capital’s reliance on labour, and especially the antagonistic relationship between the two, was the animating force of capital’s expansion. Indeed, ‘the platforms of demands which workers have for decades, presented to the capitalists have had—and could only have had—one result: the improvement of exploitation. Better conditions of life for the workers were not separable from greater economic development of capitalism’.⁸² Tronti’s example drew from Marx’s analysis of the working day in volume one of *Capital*, in which the demands for shorter work days actually benefit capital by decreasing the likelihood workers becoming incapacitated due to exhaustion; a shorter working day, and more shifts for labourers, results in a more efficient type of exploitation over a longer term. Others have noted that the Keynesian bargain of the 1945-73 era was of the same stripe; the benefits afforded to workers during this period—the legal strike, health benefits, vacation time, and so on—calmed the possibility of revolution and allowed capital to restructure.⁸³ Within the current climate, we see the undoing of almost all of these at the same time as capital continues to expand and experience more rapid and widespread crises.⁸⁴

In the context of online media distribution, pirates’ early insubordination in the form of refusing the logic of intellectual property, though not benefiting capital immediately (and in fact there are well-founded doubts that piracy has had any negative

⁸⁰ Tronti, ‘The Strategy of Refusal’, pp. 28–35.

⁸¹ Sylvère Lotringer and Christian Marazzi, ‘The Return of Politics’, in *Autonomia: Post-political Politics*, ed. by Sylvère Lotringer and Christian Marazzi (Cambridge, MA: Semiotext(e), 2007), pp. 8–23 (p. 16).

⁸² Mario Tronti, ‘The Strategy of Refusal’, *LibCom* <<http://libcom.org/library/strategy-refusal-mario-tronti>> [accessed 29 February 2012].

⁸³ David Harvey, *A Brief History of Neoliberalism* (Oxford: Oxford University Press, 2007), pp. 10–12.

⁸⁴ David Harvey, *A Brief History of Neoliberalism*.

effects on profit at all, with potentially the opposite being the case) did set in motion a series of 'improvements' for media consumers.⁸⁵ The emergence of convenient legal alternatives in the form of iTunes, Rhapsody, Pandora and so on have satiated audiences' desire for easy and cheap access to cultural production that was revealed by the emergence of Napster. Also set in motion was the complex of technological and juridical instruments now used in the commodification of audiences, which is itself proving to be a much more efficient form of exploitation of immaterial labour because audiences seem more than willing to accept, and indeed voluntarily submit to, their own commodification so long as they can maintain convenient access.

Nonetheless, Tronti saw in capital's dependence on labour a crucial opening for resistance, which was the capacity for workers to refuse to participate in capitalist development by withholding their labour:

what happens when the form of working class organisation takes on a content which is wholly alternative; when it refuses to function as an articulation of capitalist society; when it refuses to carry capital's needs via the demands of the working class? The answer is that, at that moment and from that moment, the system's whole mechanism of development is blocked.⁸⁶

Such a blockage would necessitate nothing less than a revolution in working class thinking away from the traditional Marxist-Leninist glorification of labour and its expression in trade union demands, the victories of which had in Tronti's view only strengthened capital and further entrenched the exploitation of the working class:

A new form of antagonism must instill [sic] itself in working class science, bending this science towards new ends, and then transcending it in the totally political act of practice. The form we refer to is the form of the struggle of refusal, the form of organisation of the working class 'No': the refusal to collaborate actively in capitalist development, the refusal to put forward positively programme of demands.⁸⁷

Tronti's view of the potential effects of such a refusal was dramatic: 'the catastrophic

⁸⁵ Brett Danaher and Joel Waldfoegel, 'Reel Piracy: The Effect of Online Film Piracy on International Box Office Sales', *SSRN eLibrary*, 2012 <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1986299> [accessed 29 February 2012]; Felix Oberholzer-Gee and Koleman Strumpf, 'The Effect of File Sharing on Record Sales: An Empirical Analysis', *Journal of Political Economy*, 115 (2007), 1–42.

⁸⁶ Tronti, 'The Strategy of Refusal'.

⁸⁷ Tronti, 'The Strategy of Refusal'.

collapse' of capitalism. Within the context of networked immaterial labour, what are the potential forms that the refusal of work can take?

I do not suggest that Private BitTorrent filesharing fulfils Tronti's prediction that refusal will hasten the catastrophic collapse of capital. Nor do I suggest that private BitTorrent piracy is somehow representative of shift in a wider working class revolutionary consciousness. Indeed, by many accounts the media industries are today thriving more than ever before and they are doing so largely because the majority of listeners appear more than willing to accept the terms put forth by the celestial jukebox. However, the practices associated with private filesharing can and do in many ways provide a model for the organisation of an outright refusal of the capitalist valorisation of the audience labour associated with consuming online media content. If audience commodification through advertising and subscriptions enabled by the tracking and monitoring of consumer activity is the primary site for the extraction of surplus value within the celestial jukebox, then private BitTorrent piracy, by eschewing audience commodification, *is* significant for its refusal of this logic.

Crucially though, the refusal performed is not one that rejects creative productive labour out of hand. Private BitTorrent sites are complex entities that have taken a great deal of technical knowledge on the part of the programmers charged with maintaining their operation, and take a great deal of commitment on behalf of the membership to continually augment the sites' catalogues and other informational content. Indeed,

[t]his refusal of work should not be confused with a denial of one's own creative and productive powers. It is a refusal rather of the capitalist command that structures the relations of production and binds and distorts those powers. This refusal, then, is also an affirmation of our productive forces or creative capacities outside of capitalist relations of production.⁸⁸

Private BitTorrent piracy refuses capitalist valorisation but does not refuse productive work as such. It harnesses the very same tools, technical skills, and network connections that capital has so efficiently exploited for the benefit of the corporate ownership of the recording industry and effectively redirects these toward the work of creating and expanding of autonomous spaces for the sharing of cultural production.

⁸⁸ Paolo Virno and Michael Hardt, *Radical Thought in Italy* (Minneapolis, MN: University of Minnesota Press, 1996), p. 262.

CONCLUSION

This chapter has offered a unique perspective on the relationship between piracy and legal online music distribution. I argued that while copyright has been a dominant framework for understanding piracy as a potentially revolutionary force, there are other important elements of the phenomenon that require attention. The media industries have, in recent years, shifted focus somewhat. They have moved away from the digital musical 'objects' themselves and have begun to focus on the various ways to monetise the participation of music listeners. The principle means for monetising audiences has been through the imposition of a contractual relationship to music through subscription services and through monitoring and tracking audience behaviours as a means to push content to them and sell this information to advertisers. This is what Patrick Burkart and Tom McCourt refer to as the 'celestial jukebox', an always on and always profitable paradigm for profiting from audience capacities to share, listen to, and communicate about music.

The Celestial Jukebox finds resonance in Dallas Smythe's work on the audience commodity. Smythe saw that one of the principal products of the mass media was the audience itself, which was produced so that it could be sold as an informational commodity to advertisers. Adapting Marx's labour theory of value, Smythe suggested that broadcast media valorised 'audience power' as surplus value, and thus the audience itself could be said to 'work'. Audience labour was crucial to the profitability not only of mass media production, but also of the wider commodity culture that audiences took part in. Smythe's audience commodity is representative of a broader shift in capitalist accumulation strategies that has seen the expansion of market relations deeper and deeper into more and more areas of life. Autonomist Marxists see capital's expansion beyond the walls of the industrial factory as the emergence of the 'social factory' in which all forms of activity represent points of potential value extraction.

Paralleling the rise of the social factory is the emergent logic of 'immaterial labour', which according to Hardt and Negri includes productive activity that creates ideas, knowledge, code, affects, and so forth. This expansive definition of immaterial labour, I suggested, would include the labour performed by audiences as they communicate, share, listen to music, attend to advertising, and enter into contractual relationships in order to access music. Crucially, public BitTorrent filesharing sites have also adopted the logic of audience commodification as they employ advertising in order to generate revenue to cover costs and potentially generate profits. In this way, despite

the fact that public sites reject the commodity status of digital media, they reinforce the commodity status of audiences by turning them into informational commodities to be sold to advertisers.

Private sites, in contrast, reject both intellectual property and audience commodification by eschewing advertising in favour of soliciting donations from the membership. As a result, I argue that private sites perform a type of refusal of immaterial labour. Refusal of work has been a central concept in Autonomist Marxist thought, which holds that the constitutive role played by labour in capital's expansion means that withholding work can have detrimental effects for capital. In this way, private sites can be seen to refuse the valorisation of the labour of their audiences as surplus value and instead valorise this labour through the creation of autonomous spaces for the sharing of cultural production.

'But at a certain point all this must be reversed into its opposite', argues Mario Tronti. 'When it comes to the point of saying "No", the refusal must become political; therefore active; therefore subjective; therefore organised. It must once again become antagonism—this time at a higher level'.⁸⁹ The question thus becomes: what happens following this refusal, how does it become organised and political. The following chapter takes up this question and presents an argument for conceiving of public and private BitTorrent sites as experimental 'institutions of the common'.

⁸⁹ Tronti, 'The Strategy of Refusal'.

CHAPTER SEVEN: PIRACY AND THE COMMON

INTRODUCTION

The central task of this chapter is to analyse and understand the various ways that BitTorrent piracy experiments with new organisational forms and how these forms relate to contemporary perspectives on the ‘common’. I am concerned to analyse piracy’s capacity to resist intensified focus on intellectual property, patents, and other forms of ‘immaterial’ production more generally as a primary site of value extraction within the context of post-Fordist capitalism. Such intensification sees the valorisation of capacities for thinking, communicating, sharing knowledge, ideas, affects, and so forth. Each of these are part of the common, and thus modern capitalism comes to rely more and more on them as it seeks to privatise and control these common productive capacities. Within such an apparently totalising scenario—the ‘social factory’ of Autonomist Marxism—resistance itself might seem impossible. I have already established how private BitTorrent sites articulate a refusal of audience commodification that augments and intensifies piracy’s more general refusal of the intellectual property form. It is not enough, however, to simply identify media piracy as form of refusal, it is also crucial to ask what actualisations emerge from these twin refusals. It is crucial to understand what forms refusal takes, and how the specific organisational, structural, and social elements of these forms might support or subvert the capitalist system they are said to refute. It is possible to see in piracy elements that open towards the enhancement of the common but also that threaten to enclose and degrade the common, and thus potentially reinforce and expand capital’s expropriation.

A focus on piracy is useful because of piracy’s multifaceted experimentation with organisational forms that attempt to move beyond the expropriation of the common through intellectual property and, at times, audience commodification. One way of understanding such experimentation is to see BitTorrent media piracy, in both its public and private variants, as emergent institutions of the common. *The Pirate Bay*, SITE F, SITE E, SITE B and others, are, as entities, important alternative practices for cultural distribution. As discrete entities and as a totality, public and private BitTorrent sites contribute variously to the experimental process of moving toward a form of common and collaborative media distribution. But such sites do so in ways that are at once contradictory and ambivalent since they span a range of practices and tactics that

appear, often simultaneously, to both support and subvert the common. In order to more fully understand these contradictions, BitTorrent filesharing needs to be seen less as peripheral to the dominance of commercial media industries and more as central to the experimental practices involved in the creation and maintenance of the commons. To make this perspectival shift, a more nuanced and detailed consideration of piratical practices is necessary in order to identify those aspects of piracy that are in the service of enhancing the common, and those which threaten it.

To begin to address these concerns I first discuss contemporary perspectives on the commons. I take up those perspectives on the commons that emerge from the Autonomist Marxist tradition. These perspectives see the common as encompassing the knowledges, ideas, codes, affects, and so forth that are a precondition for all productive activity. But they also see the common as constantly threatened by capital's expropriation, in which case there is a will to capture commons-based productive activity in order to valorise its many guises as private surplus value.¹ In the case of the virtual commons, this expropriation increasingly finds expression in the reassertion of rent as a privileged form of capitalist accumulation, especially in the form of controlled access to intellectual property. I then address the important analytical distinction that is made between the 'natural' commons—that of land, air, water—and the emergent 'virtual' commons of immaterial production. The idea of a 'media commons' has its roots in the the observation that digital information is a form of virtual commons that is not, for the most part, subject to the scarcity that characterises the natural commons. Attending to critiques of Garret Hardin's seminal though problematic narrative of the 'tragedy of the commons' provides an important starting point for understanding the role of commons thinking with regards to digital media circulation.² This is because piracy itself is most often seen as opposed not only to capital but also to the goals of a copyright-reformist approach to the media commons, which argues for a commons that largely leaves in place its primary antagonist—private property.

Second, I take up the importance of institutions in the creation and maintenance of the common. Institutions can take varied forms, and piracy is but one of them. Hardt

¹ Nick Dyer-Witheford, 'Cognitive Capitalism and the Contested Campus', in *Engineering Culture: On The Author as (Digital) Producer*, ed. by Geoff Cox and Joasia Krysa (Autonomedia (DATA Browser 02), 2005), pp. 71–93 <kurator.org/media/uploads/publications/DB02/DyerWitheford.pdf>; Michael Hardt, 'The Common in Communism', in *The Idea of Communism*, ed. by Slavoj Žižek and Costas Douzinas (New York: Verso, 2010), pp. 131–144; Michael Hardt and Antonio Negri, *Commonwealth* (Cambridge, MA: Belknap Press of Harvard University Press, 2009).

² Garrett Hardin, 'The Tragedy of the Commons', *Science*, 162 (1968), 1243–1248.

and Negri emphasise the importance of developing institutions that are oriented toward the common as a means of providing both the conceptual but also the material apparatus for facilitating an exodus from capital. I take up David Harvey's critique of Hardt and Negri's Autonomist-inspired conceptualisation of the common, which sees them as too abstract because they do not take into consideration the positive role that may be played by certain limited forms of organised and limited enclosure.³ Harvey's critique can be fruitfully combined with Hardt and Negri's emphasis on institutions because each emphasise the need for some sort of organisational element in order to facilitate an exodus from capital. Here, I offer piracy as a means to analyse experiments in the creation of institutions and organisational frameworks that might create the conditions for a fully realised commons of media circulation, one that is unbounded by considerations of private property, artificial scarcity, and the commodification of human capacities to share, communicate, and experience pleasure through media.

I must again emphasise the experimental nature of these nascent 'pirate commons' because, as I discuss in the third section, not all aspects of BitTorrent filesharing are necessarily positive for the project of creating and maintaining an autonomous space for cultural distribution. Here, I propose to take up Cesare Casarino's challenge, which issues forth in his observation that if in fact the common is so integral to capital as to be nearly indistinguishable, then it is necessary to identify and assess the differences between the two if there is any way to reappropriate the common from capital.⁴ In order to begin to distinguish BitTorrent piracy's relationship to the project of the common I propose a tripartite analytical framework for assessing piracy's ability to open up towards making the common a reality. This framework draws on Hardt and Negri's triadic formulation that sees the common as: (a) the presupposition, or the condition of possibility for (b) all productive activity, which is in turn necessary for producing the common as (c) the (desired) result, an enhanced and stronger common, which then in turn becomes the condition of possibility for this self-perpetuating circuit.⁵ Casarino sees these as, respectively, the common 'for itself', 'in itself', and 'for others'. With this framework it is possible to analyse and assess public and private filesharing as emergent institutions of the common. I consider those intrinsic and extrinsic aspects of public and private BitTorrent piracy that support and/or subvert (a)

³ David Harvey, 'The Future of the Commons', *Radical History Review*, Winter (2011), 101–107; David Harvey, 'Commonwealth: An Exchange', *ArtForum*, 2009, 211–215, 256–262.

⁴ Cesare Casarino, 'Surplus Common', in *In Praise of the Common: a Conversation on Philosophy and Politics* (Minneapolis, MN: University of Minnesota Press, 2008), pp. 1–40.

⁵ Casarino, p. 16; Hardt and Negri, *Commonwealth*.

the common ‘for others’—the opening up of access to cultural production unhindered by intellectual property and commodification; (b) the common ‘in itself’, or the ways in which the sites are organised to limit or embrace the productive activities that create the conditions of possibility for the success of the common ‘for others’; and (c) the common ‘for itself’, in which I take up those elements of the sites that encourage the formation of subjectivities that are amenable and committed to the process of (re)appropriating the common from capital.

THE COMMON AND CAPITAL

Michael Hardt and Antonio Negri note that the common is consistently ignored in mainstream conceptions of alternatives to global capitalism. They stress that throughout the twentieth century only two major forms of social, economic, and political organisation existed on our horizon of thought: socialism or capitalism. They argue that ‘neoliberalism and socialism, seem to be the only poles of the contemporary economic imaginary’.⁶ These dominant forms are both ‘regimes of property’ and they differ only in the ways in which they envision the ownership of that property (collective or individual) and the distribution paradigms for the results of production (public or private). As regimes of property they are antagonistic to the common because by engaging with production at the level of property each imposes limits on the productive capacities of the common, especially those involved in the production of knowledge, affects, and ideas. Where capital relies so much on the valorization of the common, the more it must encourage the common, and the more the common escapes it, socialism becomes a management strategy for directing this production, a ‘regime of work imposed through government and bureaucratic institutions’.⁷

The contemporary resurgence of interest in the commons has emerged alongside the proliferation of digital networks that are said to see us ‘standing on the threshold of post-scarcity’, in which an abundance of easily transferable and reproducible digital content has radically altered the contours of global capitalism and the possibilities for resistance.⁸ Media, ideas, knowledges, and so forth in digitised form are abundant and largely non-rivalrous. Their utility is enhanced by sharing them and suffers when arbitrary limits attempt to impose the logic of scarcity. The potentials for resistance that are said to emerge from post-scarcity means that ‘interest in the commons has been

⁶ Hardt and Negri, *Commonwealth*, p. 268.

⁷ *Ibid.*, pp. 268–269.

⁸ Murray Bookchin, *Post-Scarcity Anarchism* (Oakland, CA: AK Press, 2004), p. iv.

revived by opponents of global capital seeking a vantage from which to criticise the “new enclosures” [that are] privatizing [] natural and social resources across the planet’ and thus ‘the concept remain[s] an important lever for rethinking issues of collective production and ownership’.⁹ Attending to media piracy and its relationship to contemporary discourses on and theories of ‘the common’ can help us understand online media piracy’s capacity to resist within contemporary informational capitalism.

A focus on the common is useful in this regard because the emergent logic of production has its basis in the shared capacity for human beings to engage in the production of knowledge, ideas, affects, and so forth. These capacities are precisely the foundation upon which capital’s successes in the realm of online media distribution is built because, as I noted previously, these capacities are increasingly subsumed as forms of immaterial labour within informational capitalism and valorised through the tracking of listener preferences, sharing practices, and so forth. Capital and online media distribution have expanded and come to rely on these capacities as sites for both the direct extraction of value—as in audience commodification—and as preconditions for any productive activity. The extraction of surplus value from the productive capacities of the common is what Hardt and Negri call the ‘expropriation of the common’—the taking, by capital, of that which is common and the valorising of it as private wealth.¹⁰ Such a reliance has seen an expansion of market relations further and further into everyday life, into its every dimension. Online piracy, through its varied organisational forms, appears to have frustrated capital’s attempts to capture value or to expropriate commons-based activity in its totality. As a popular practice based on the communication of information across the same global networks that enable the expansion of capital, but which itself exists in tension with this expansion, piracy is thus a vital point for a critical intervention and consideration of engagement with the possibility of staging resistance within the very domain and conditions that see the increased expropriation of the common.

The development of a line of thought that sees online media piracy in relation to the common is crucial because at the same time as capital expands in an attempt to capture value from all areas of life, our contemporary world is also marked by increased technological capacity for the production and expansion of the common. The productive

⁹ Nick Dyer-Witford, ‘The Circulation of the Common’, *The Free University*, 2006 <<http://www.thefreeuniversity.net/ImmaterialLabour/witfordpaper2006.html>> [accessed 29 February 2012].

¹⁰ Hardt and Negri, *Commonwealth*, pp. 138–142.

capacities that hold the possibility for the production of the common are also subject to strategies for extracting value that direct common cultural production toward ever-increasing (and ever more imaginary and abstract) forms of private wealth.¹¹ One example of such an extraction strategy is the use of advertising by many publicly accessible piracy venues. Accompanying this expansion has been a parallel intensification in modes of control—social, technological, and juridical—deployed to ensure capital’s smooth capture of the common. In relation to piracy, examples of such modes of control would include transnational intellectual property policies, network surveillance, audience commodification, and lawsuits. So much has capital come to rely on and control that which is common that it becomes possible to suggest that ‘the common is virtually indistinguishable from that which continually captures it, namely, capital understood as a fully [...] global network of social relations’.¹²

The central problematic of this mutually constitutive relationship between capital and the common is that as capital’s reliance on the common grows so too do the possibilities for the common’s escape. As Michael Hardt has argued, capital’s increasing reliance on the ‘immaterial’ production of affects, ideas, code, and so forth requires that capital’s strategies of command and control operate from a distance.¹³ This is because strict control over such immateriality fetters its productive capacity since the ‘products’ of immaterial labour are not scarce and are easily shared, and in fact their productivity and utility are often enhanced through their free circulation. Thus, in terms of online media circulation it can be said that too strict limits on access—for example, Digital Rights Management—actually reduces the capacity of the celestial jukebox to realise surplus value through audience commodification. This is because the celestial jukebox requires that audiences retain a certain autonomy to share and communicate about music and thus draw other potential audience members into the fold. Capital cannot strictly police such productive capacities in the way that it once organised production inside the factory walls. Instead, the capacities associated with audience commodification specifically and immaterial production generally can only be controlled from a distance. In terms of the celestial jukebox such control takes the form of the subscription, limits on quality and quantity of media, adherence to copyright law, and so forth. However, these indirect forms of control also hasten the possibility of the escape of both the media

¹¹ David Harvey, *A Brief History of Neoliberalism* (Oxford: Oxford University Press, 2007), pp. 157–158.

¹² Casarino, p. 15.

¹³ Hardt, ‘The Common in Communism’.

objects and the commodified listening subjects. Hardt puts it thus: ‘the more the common is corralled as property, the more its productivity is reduced; and yet expansion of the common undermines the relations of property in a fundamental and general way’.¹⁴ Capital and the common are thus in lock step, with capital seeking ever more innovative forms of control, albeit partial and at a distance, over productive capacities that have their basis in the common and always threaten to, and often do, break free of their capture by capital.

The dynamics of capital and the common are clearly seen in online digital media piracy, in which the success of the media industries and the logic of the celestial jukebox hinge upon a double movement. First, capital must encourage the common capacities of sharing, communicating, listening, assessing, and experiencing pleasure from media that is provided through a mechanism that sees its users surveilled, catalogued, contractualised, packaged and sold as informational commodities. Second, this requires a form of control that, in an effort to prevent these capacities from being valorised as anything other than private wealth, must call forth the powers of the state to police Internet content through domain filtering and seizure, lobby for intensified control over the proliferation of pirated media content, encourage the adoption of commercial venues that draw media consumers into webs of self-commodification, and mount ideological campaigns in the form of information subsidies to schools and anti-piracy advertising in order to sway listeners’ opinions. Each of these are ways of directing the commons-based activity of sharing and communicating toward profitable ends.

At the same time, piracy always threatens to break free of these controls by repurposing these networks to facilitate the open access to media content and toward the creation for alternative communicative spaces—towards the reappropriation of the common from capital’s grip. Piracy is exemplary of how human beings can leverage technology for the purposes of opening access to information and for working and producing in ways that are not restricted by property relations. However, piracy is by no means inherently positive for the enhancement of the common. The ambivalences of piracy illustrate Hardt and Negri’s point that ‘not all forms of the common are beneficial [...] some forms of the common increase our powers to think and act together [...] and others decrease them. Beneficial forms are motors of generation, whereas detrimental

¹⁴ *Ibid.*, p. 136.

forms spread corruption'.¹⁵ Many of the practices associated with piracy threaten the common through new forms of enclosure and exclusion, while others threaten to corrupt the quality of the common as a result of unrestricted access and lax curation. Public BitTorrent sites demonstrate that at times open access can result in the degradation of the quality of media while the enclosures of the sort germane to private sites can enhance this quality. At the same time, that very enclosure excludes many from having access to high quality collections of digital media. For these reasons, attending to the specific details of the various forms media piracy takes allows for a tempering of the more extreme accounts of piracy's revolutionary capacity. To fully understand what piracy means regarding the potential for resistance within information capitalism means recognising the mutually constitutive relationship between the common and capital, but also recognising that the indistinguishability that is said to be a result of capital's increased reliance on the common is itself a perspective that serves to benefit capital. The task here is to break free from that type of thinking. Casarino notes that 'precisely because it is capital rather than the common that posits and needs to posit itself and the common as indistinguishable from one another' that 'any project of reappropriation of the common from capital needs to begin from an attempt to distinguish—that is, to articulate, the difference—between the two'.¹⁶ Capital requires that we conceive of it as necessary so that it can continue to expropriate the common unchallenged. The task of seeing resistance through the enhancement of the common requires that we question this necessity, but the only way to do so is to find ways of seeing the difference between those activities that enhance and those that degrade the common. This is precisely the aim of the final section of this chapter, where I analyse those factors involved in pirate organisations that support or subvert the common.

THE NATURAL AND THE VIRTUAL COMMONS

The 'commons' has traditionally been understood as those natural resources that are shared among all human beings, despite various attempts throughout history to make it otherwise. Land, air, water—the basic building blocks of the natural environment—have long been understood as limited or precious common resources in need of careful management of their use. More recently, the definition of the commons has been extended to include such things as ideas, affects, and knowledges. A crucial distinction

¹⁵ Hardt and Negri, *Commonwealth*, pp. 159–160.

¹⁶ Casarino, pp. 15–16.

is made between these two forms of commons. The first—the ‘natural’ commons—are ‘rivalrous’; they can be depleted, and thus they require careful stewardship to ensure their sustainability. The second—understood as a ‘virtual’ or ‘artificial’ commons—are largely ‘non-rivalrous’ because in the sharing of knowledges and ideas, or in the creation of affects, nothing suffers (any irreparable) depletion. In fact, such a common is, through sharing, often enhanced and expanded rather than degraded.¹⁷ This point has been identified as a distinguishing factor of peer-to-peer networks because ‘the more users are using the P2P networks to share files, the more valuable the network is, as there exists more possible locations to access content and more content is available in the network’.¹⁸ To share a music or video file is not to prevent another from retaining it, and the more digital media proliferates, the larger the common pool of media resources through which knowledges and ideas are circulated becomes. I have already noted earlier that the increased utility of BitTorrent sites is a result of the labour of audiences, whose continuous participation in seeding torrents makes them potentially more valuable in this respect than public sites. This utility is also enhanced by filesharers who contribute to other aspects of the informational elements of public and private BitTorrent sites. In this way, digital media resources are not so much non-rivalrous as they are ‘anti-rivalrous’ since ‘consumption *increments* the utility of the good’.¹⁹ Digital media can thus be understood as part of the ‘virtual’ or ‘artificial’ commons because of its near limitless reproducibility, which is a result of the coupling of expanding digital storage space with digital network technologies. This expansion of an anti-rivalrous commons facilitated by peer-to-peer networks ‘create[s] acute problems [for] private ownership and market rationing’ because the scarcity that is foundational for limiting access to more material commodities is challenged by the reproducibility of the virtual commons; this being a process which is less easily fenced and less amenable to restricted access.²⁰

Though this chapter’s primary focus is on the virtual commons of digital media circulation it is important to note from the outset that the proliferation of digital (or immaterial) production is, in fact, enabled by a material layer that is itself under constant threat of degradation as a direct result of the practices and products of a digital

¹⁷ Hardt, ‘The Common in Communism’, p. 136.

¹⁸ Carlos Macián and Jorge Infante, ‘The Tragedy of the Commons Vs P2P Success: An Analysis of the Conditions for Cooperative Sustainability in the File-sharing World’, 2008 <www.canavents.com/its2008/abstracts/249.pdf>.

¹⁹ Ibid.

²⁰ Dyer-Witheford, ‘The Circulation of the Common’.

media commons. Any emancipatory potentials of a networked commons must be set against a backdrop of the threats they might represent to the natural commons. Capital's threat to the natural commons is immense and is only magnified by the reliance on and proliferation of digital network technologies.²¹ There are two dimensions to this threat. The first is the degradation of the natural environment through pollution and unrestricted use of resources. For example, the immense need for water in the manufacture of computer technologies is a serious issue for environmental sustainability, as are the effects of the waste products resulting from both manufacturing processes and the detritus created through obsolescence of technological devices. Concerns have mounted about 'e-waste', especially in parts of the world where the discarded technologies of the West are often sent only for the disposal process to be poorly managed in a way that has detrimental effects for ground water, food supply, air quality, and so forth.²² Moreover, energy consumed in the use of Internet technologies and its relation to the depletion of the ozone layer is also of concern: it has been suggested that two Google searches will produce as much carbon emissions as boiling a kettle and the information technology industry as a whole contributes approximately 2% of global carbon emissions.²³

The second dimension is the role of privatisation and enclosure as a threat to common access to the natural commons. Industrial processes, including those involved in the manufacture and distribution of computer technologies, privatise land and water usage and colonise air space and the broadcast radio spectrum with an aim of introducing points of friction in order to extract value from the use of such resources. Examples here abound, from the forced privatisation of water resources through International Monetary Fund (IMF) restructuring plans to forestry industries that lay claim over large swaths of the world's woodlands, to the largely unfettered use of the radio spectrum by for-profit broadcasters and telecommunications companies in many areas of the world. Indeed, these secondary threats to access dovetail with the first threats to material resources since it is largely through the processes of privatisation for

²¹ Manfred Dworschak, 'Massive Computer Centers Bad for the Environment', *Spiegel Online*, 28 March 2008, section Business <<http://www.spiegel.de/international/business/0,1518,544053,00.html>> [accessed 1 March 2012].

²² Y Amoyaw-Osei and others, *Ghana e-Waste Country Assessment* (Green Advocacy Ghana & Empa Switzerland, 2011) <http://ewasteguide.info/Amoyaw-Osei_2011_GreenAd-Empa>. See also Alex Means, 'Toxic Sovereignty: Biopolitics and Cote d'Ivoire', *Politics and Culture*, 2 (2007) <<http://www.politicsandculture.org/2009/10/02/alex-means-toxic-sovereignty-biopolitics-and-cote-divoire/>> [accessed 29 February 2012].

²³ "'Carbon Cost" of Google Revealed', *BBC News*, 12 January 2009, section Technology <<http://news.bbc.co.uk/2/hi/7823387.stm>> [accessed 1 March 2012].

profit that such common natural resources are depleted or threatened with overuse. Marx referred to such processes as a form of capital's 'primitive accumulation' that saw formerly common land and resources subsumed into industrial capitalist production.²⁴ Traditionally, Marxist scholars have understood such privatisation processes as a historical phase that laid the groundwork for industrial capitalism through the dispossession of common resources by private interests (i.e. common land). More contemporary Marxist scholars see primitive accumulation as an ongoing process necessary for capital's continued function, as in times of social or environmental crises, when formerly public or common property is privatised in a strategy designed to profit from catastrophic loss.²⁵ Thus, the threat to the natural commons might also be extended to those political elements that see global capital supporting authoritarian regimes in search of precious natural resources, such as those needed for the manufacture of telecommunications and computer hardware.²⁶

There is a similar bifurcation of common resources that is intrinsic to digital filesharing. As Carlos Macián and Jorge Infante note, peer-to-peer is actually a combination of 'anti-rivalrous' goods—the digital files themselves—and the relatively more scarce (as a result of the imposition of restrictions on use) 'common pool resources' of bandwidth, computer processing power, and storage: 'CPU, storage capacity and upload bandwidth are scarce resources share[d] by the participant[s] private use and the P2P community[']s public use'.²⁷ And just as with the natural commons, the potential for shared usage of the hardware layer of networked computing—something that any filesharing, and especially BitTorrent relies on—is itself constantly under threat of new enclosure by capital. To be sure, according to Moore's Law the market price per gigabyte of storage continues to drop, which is itself a phenomenon that can only be a result of the provision of cheap Asian labour, just in time shipping, the oil and plastics industries, and essential materials that are drawn from regions of great conflict in Africa.²⁸ But perhaps more crucial to digital media

²⁴ Karl Marx, *Capital, Volume One: A Critique Of Political Economy*, trans. by Ben Fowkes (London: Penguin Classic, 1990); David Harvey, *A Companion to Marx's Capital* (New York: Verso, 2010), pp. 289–313.

²⁵ Naomi Klein, *The Shock Doctrine: The Rise of Disaster Capitalism* (New York: Metropolitan Books, 2007); David Harvey, *The Enigma of Capital and the Crises of Capitalism* (Oxford: Oxford University Press, 2011).

²⁶ *Faced with a Gun, What Can You Do?* (Global Witness, 2009) <<http://www.globalwitness.org/library/faced-gun-what-can-you-do>> [accessed 1 March 2012].

²⁷ Macián and Infante.

²⁸ 'PRESS KIT -- Moore's Law 40th Anniversary', *Intel.com* <http://www.intel.com/pressroom/kits/events/moores_law_40th/index.htm> [accessed 6 February 2012]; *Faced with a Gun, What Can You Do?*; Harvey, *A Brief History of Neoliberalism*, pp. 120–151.

circulation is the recent strategy for extracting value from network use, which is the practice by Internet Service Providers (ISP) of pro-rating Internet bandwidth usage fees either through tiered subscription packages or pay-per-use data plans. Here, capital extracts value from data in motion—each time a packet of information passes between a home connection and the wider Internet, it counts against the total amount of bandwidth purchased as part of the service and overage fees are not uncommon.²⁹ It is in this way that we find the further abstraction of strategies for surplus value extraction. It is no coincidence that as streaming music and video services such as *Spotify* or *Netflix* become popular, ISPs begin to charge for bandwidth more intently—indeed, many ISPs describe the business models of the streaming services as being parasitical on their networks and thus justify their own need to share in the profits, passing the ultimate charges on to Internet subscribers. Though my focus here is less on the conception of the common in a communally available resource and more so on the common as a way of being or as a set of practices and customs, it is important to acknowledge that undergirding all of this is a material commons that is threatened by the drive to extract surplus value from the very processes that rely on the digital networks that this common itself permits.

The issue of the relations between natural environments and resources and media piracy and Internet communication technologies is the subject of another research project. Indeed, the research undertaken for this analysis suggests that a fuller understanding of the practices of online media piracy and their relationship to the common can teach us a great deal about the ways we might address the physical layer of modern communication technologies inasmuch as the needs and goals of a commons-based media structure might be quite different than those of a private structure. I need only briefly point out that a privatised, proprietary network driven toward market expansion, surplus value extraction, and private accumulation implements certain features that enhance these prospects. Such features include a certain amount of planned technical obsolescence, cost-cutting labour measures through globalised outsourcing, and intensified marketing campaigns to ensure maximum growth through continuous consumption.³⁰ Each of these features stretch natural, social, and mental environments to their limits at the same time as limits are placed on the potential uses of network

²⁹ 'CRTC Green Lights Usage-based Internet Billing - Technology & Science', *CBC News*, 28 October 2010 <<http://www.cbc.ca/news/technology/story/2010/10/28/crtc-usage-based-billing-internet.html>> [accessed 1 March 2012]; Jared Moya, 'Canadian ISP: Overage Fees "Not Meant to Recover Costs"', *ZeroPaid*, 2011 <<http://www.zeropaid.com/news/92025/canadian-isp-overage-fees-not-meant-to-recover-costs/>> [accessed 1 March 2012].

technologies through the introduction of artificial scarcity via bandwidth caps, pay-per-use services, and so forth. One can imagine that an open and commonly accessible network directed more toward enhancing the common and away from the deleterious effects of unhindered expansion of profitability would have a very different set of concerns. Such concerns would more than likely be based upon principles of free access in addition to reliable long lasting infrastructures and devices. Moreover, in a world in which such a network actually existed as a priority, it is also highly likely that issues of environmental sustainability and labour conditions would be equally as important as access, which in turn would result in a wholly different paradigm for the manufacture and maintenance of technologies such as network devices and infrastructure.

THE COMMON AND THE LIMITS TO THOUGHT

The blindness to the common that Hardt and Negri note can be attributed to critiques of the common's capacity to sustain itself, such as those made famous by Garrett Hardin in his important 1968 essay 'The Tragedy of the Commons'.³¹ Hardin was chiefly concerned to demonstrate how, if left unchecked, a common resource would ultimately be depleted by those who relied on it. The example Hardin offers is a group of cattle owners who hold in common the land upon which the animals graze. Hardin asserts that as 'a rational being, each herdsman seeks to maximize his gain. Explicitly or implicitly, more or less consciously, he asks, "what is the utility to *me* of adding one more animal to my herd?"'.³² The herdsman concludes that it is to his maximum advantage to continuously add cattle to his herd because, at first blush, overgrazing will affect everyone equally though the benefits of the value of more cattle will accrue only to him. Since, over time all cattle owners would seek maximum self-advantage—something that Hardin obliquely admits is a form of coercion since '[e]ach man is locked into a system that *compels* him to increase his herd without limit'—the resulting overgrazing would result in the ultimate depletion of the commonly-held resource.³³

Hardin's logic appears reasonably sound at first given that a finite resource can only support a finite amount of users of that resource. At base though, Hardin's

³⁰ Jeremy Bulow, 'An Economic Theory of Planned Obsolescence', *The Quarterly Journal of Economics*, 101 (1986), 729–749 <doi:10.2307/1884176>; Joseph Guiltinan, 'Creative Destruction and Destructive Creations: Environmental Ethics and Planned Obsolescence', *Journal of Business Ethics*, 89 (2008), 19–28.

³¹ Hardin, 'The Tragedy of the Commons'.

³² *Ibid.*, p. 1244.

³³ *Ibid.*, p. 1244. (emphasis added)

argument assumes a rational, self-interested subject that is concerned only with his/her self-advantage. Just as with the blind spot that the common represents in contemporary political-economic thinking, little consideration is given to the possibility that the herdsman would be aware enough to understand the ultimate consequence of their overgrazing habits or that they may potentially form autonomous alliances or affinities among one-another with the aim of ensuring that the resource was not depleted. This is what E.P. Thompson meant when he wrote that ‘the commoners themselves were not without commonsense. Over time and over space the users of the commons have developed a rich variety of institutions and community sanctions which have effected restraints and stints upon use’.³⁴ Such a critique though is also precisely that which informs projects that seek to impose limits on common resources as a means of nominally ‘protecting’ them through privatisation. Hardin would later revise his thinking by admitting that his error was in the omission of the word “managed” suggesting instead that averting tragedy would necessitate management of the common in order that it sustain its users and be reproduced.³⁵

Hardin’s critique and proposed remedy through private management suggests what appears to be ‘an irrefutable justification for privatization’.³⁶ However, as David Harvey points out, the emphasis on the pasture here is misleading: Hardin’s focus on the land as the common resource neglects to account for the role that private ownership of the cattle plays in destroying the common: ‘if the cattle were held in common’. Harvey notes, ‘the metaphor would not work. It would then be clear that it was private property in cattle and individual utility-maximizing behavior that lay at the heart of the problem’.³⁷ Harvey’s critique echoes John Frow, who offers that Hardin’s perspective was also historically uninformed because, ‘[t]he commons were a governed space, and their destruction had to do with the pressures of capitalist agriculture upon coincident use-rights, together with the sheer political power of the landholding class, rather than with competition on an equal footing between isolated individuals’.³⁸ Both Harvey and Frow emphasise that what actually constitutes the tragedy of the commons is the pressure of privatisation and self-interest, which they suggest are two features most

³⁴ E. P. Thompson, *Customs in Common: Studies in Traditional Popular Culture* (London: The New Press, 1993), p. 107; John Frow, ‘Information as Gift and Commodity’, *New Left Review*, I (1996), 89–108 (p. 100).

³⁵ Garrett Hardin, ‘Extensions of “The Tragedy of the Commons”’, *Science*, 280 (1998), 682–683.

³⁶ Harvey, ‘The Future of the Commons’, p. 101.

³⁷ *Ibid.*

³⁸ Frow, p. 100.

detrimental to the common.

I raise Hardin's work not just because it is a seminal and highly influential work in the field of the study of the commons but also because the perspective he advances 'fits very well into the neoliberal discourse, [which argues] for privatization of resources of any kind, including global knowledge'.³⁹ Within neoliberal rationale such privatisation 'is seen as the precondition for enhancing welfare', which results in the contradictory logic that only private property can succeed where the self-interest of the farmers failed; private property can effectively exclude those whose presence might threaten that which is common while at the same time expropriating value as a result of that very exclusion, which is the same as a form of artificial scarcity.⁴⁰ Pushing even further, the popularity and dominance of Hardin's work is also revealed in how forceful these elements have been in limiting the potentials of thought in such a way as to locate alternatives to 'regimes of property' simply beyond the horizon of thought, let alone possibility, let alone actuality. Such limits are revealed in the dominant debates around intellectual property generally, and the circulation of cultural production more specifically. The major perspectives on how to deal with the 'problem' of piracy tend to circulate only around the pole of some sort of property, whether they are of the neoliberal stripe that aims for the total privatisation of knowledge and ideas, 'socialist' approaches that see full state ownership as the only means of protecting commons access, or of the 'liberal' copyright-reformist position that seeks a moderate form of intellectual property law that maintains private property while also protecting the common.⁴¹ Property remains intact regardless of whether the focus is on fairer remuneration for artists, the importance of the protection of intellectual property as a means for encouraging innovation, or revenues for major corporations. In each case little to no consideration is given to how we might understand digital media and cultural production as existing beyond the realm of property as such.

Hardin's conclusions and ensuing copyright-reformist critiques of property also sediment the distinction between the natural commons and the virtual common. Property relations are assumed to be the preferred means for managing threats to the

³⁹ Andreas Exner, 'The "Great Transformation" to "Great Cooperation": Commons, Market, Capital and the State', *Social Innovation Network*, 2010 <<http://www.social-innovation.org/?p=1650>> [accessed 1 March 2012].

⁴⁰ Ibid.

⁴¹ These three approaches can be seen clearly in (a) the desire for a free-market solution to piracy through enhanced and inexpensive online media distribution (b) proposals for such things as an 'iPod tax' or compulsory licensing, and (c) in the creative commons initiative, which I will address below.

natural commons, while it assumed that some moderated form of private property is more apt for the virtual commons.⁴² This leads to the further assumption, taking Hardin's later revisions to heart, that as a result of their potential for depletion only the natural commons require careful tending if they are to continue; the virtual commons on the other hand, freed as they are from the bonds of scarcity, will simply proliferate without end. Such a conclusion is emphasised in what has become dangerously *cliché* thinking about the potential for the development of a freely accessible information commons centred on Internet communication: that it will proliferate organically. The tantalising prospect of John Gilmore's observation that 'The Net interprets censorship as damage and routes around it' *appears* to offer a technological truism: any attempts made to introduce measures that run counter to an information commons will 'naturally' fail because of the technical structure of the Internet and the inherent properties of digital information.⁴³ But, as Cory Doctorow observes, the danger of faith in this proposition is assuming that the digital information requires no vigilant guardianship against elements that threaten Internet's capacity to continue to operate in this fashion.⁴⁴ Moreover, as Johan Söderberg notes, ascribing inherent qualities to informational goods is itself 'a close call to fetishism' since even informational products are themselves, like other products, borne of social relations.⁴⁵ The proliferation of a virtual common is not at all guaranteed because it is under constant threat due to the imposition of artificial scarcity—through intellectual property, a form of 'new enclosure'—as a means of ensuring continued possibilities for the extraction of value. Moreover, the productive capacities of Internet users to act and be in common through sharing and communicating are pressed into service—through technological surveillance and juridical power—so that, rather than escaping toward the common, they instead function as so many points along the axis of private property and value extraction through the expropriation of the common.

Media pirates serve the valuable role of creating and maintaining institutional

⁴² Johan Söderberg, 'Copyleft Vs. Copyright', *First Monday*, 7 (2002) <<http://firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/article/viewArticle/938/860>> [accessed 1 March 2012].

⁴³ Gilmore quoted in Philip Elmer-Dewitt, 'First Nation in Cyberspace', *Time International*, 1993 <<http://www.chemie.fu-berlin.de/outerspace/internet-article.html>> [accessed 1 March 2012].

⁴⁴ Cory Doctorow, 'We Need a Serious Critique of Net Activism', *The Guardian*, 25 January 2011, section Technology <<http://www.guardian.co.uk/technology/2011/jan/25/net-activism-delusion>> [accessed 1 March 2012]. See also *The Return of Revolution* (HowTheLightGetsIn).

⁴⁵ Johan Söderberg, 'Reluctant Revolutionaries – the False Modesty of Reformist Critics of Copyright', *Journal of Hyper (+) drome. Manifestion*, 1 (2004) <<http://hyperdrome.net/journal/issues/issue1/soderberg.html>> [accessed 1 March 2012].

structures that hold within them the possibility of growing a virtual common that is antagonistic toward property. They directly intervene in the process of guarding against threats to information access and are antagonistic toward capital's attempt to expropriate the common. But, even as they do so they also take on the characteristics of the system that they supposedly resist. At times they reinforce the new forms of commodification that undergird capital's attempts to valorise audiences' capacities to share and communicate about media, as with public sites' use of advertising. At other times new forms of enclosure emerge that parallel the artificial scarcity created by intellectual property. So, though private sites might resist the logic of audience commodification through their refusal to valorise listeners and viewers as informational commodities, they reinforce exclusionary practices through membership requirements, advanced technical knowledge, and competition. The contradictory character of piracy's direct interventions finds another antagonist. Because it skirts more traditional forms of politics that seek to negotiate moderate copyright laws, piracy can also be said to be antagonistic not only toward capital, but also toward those more mainstream reformist attempts to ensure open and free access to a 'media commons'. It is to this antagonism that I now turn.

MEDIA COMMONS

One of the more dominant streams of commons thinking with regard to the Internet is the notion of a 'media commons'. The argument for the development of a media commons hinges on the distinction between the reproducibility of digital information and its corresponding lack of scarcity. The overarching proposition is that because digital media is not subject to the scarcity of material resources that it can and should be made freely accessible to all. The notion of a media commons advances a critique of the 'artificial scarcity' created by commercial publishers, record labels, and the intellectual property laws that support them and which they exploit. A media commons is seen as a progressive position because it seeks to democratise access to information in an era where information itself is seen as having an inherent value, whether in the form of formal education, creative blendings of popular culture texts, or access to information used in state governance and policy making.⁴⁶ As such, a media commons is at base a proposal to harness the increased utility of non-rivalrous goods

⁴⁶ Lawrence Lessig, *The Future of Ideas: The Fate of the Commons in a Connected World* (New York: Random House, 2001).

that results from the act of sharing them and to craft some kind of institutional framework by pursuing alternative policy arrangements that include moderate copyright laws designed to promote and grow such activity. It is future-oriented in so much as there is a supposition that should an open access approach to cultural production take root and become the norm, then other elements of life would follow suit. This, I argue, is a tremendous risk to take given the centrality of information that such positions suggest is necessary for life in all its guises. It is risky because there is a clear danger that the expansion of capital into all facets of life, and the increasing measures of distanced command and control that support this expansion, will simply continue to expand and capture that which is produced in common, whether or not alternative proposals appear to moderate such a possibility. Media piracy exists in tension with such efforts, I argue, precisely because it circumvents copyright law entirely and instead directly intervenes in the project of forcibly opening access to cultural production. And when it does so, it is often criminalised by the state and eschewed by those who seek more 'legitimate' forms of the cultural commons.

There exist numerous examples of attempts to form institutions based around the idea of a media or cultural commons. *Wikipedia*, a user-editable and free accessible encyclopædia is perhaps the best known. The Internet Archive, which captures digital 'snapshots' of the Internet at regular intervals and also hosts a variety of openly accessible (and legal) media, is another important example. Another, the Creative Commons initiative spearheaded by Lawrence Lessig of the Harvard Law School, is of particular relevance when it comes to issues of intellectual property and media circulation.⁴⁷ Creative Commons is promoted as an alternative to copyright and offers creators the opportunity to have 'some rights reserved' in order to determine, for themselves, what types of access they wish to provide for those using their work. Such examples include a variety of licenses that allow the creator to place limits on commercial redistribution, derivative works, attribution, and, importantly, the option to require that anyone who uses their work licenses it in the same way. The media commons has also been embraced by many scholars and universities, which seek in different ways to establish digital repositories of research and information, many of which still hinge on membership via institutional affiliation, which for many means the payment of increasing tuition fees. In the realm of popular culture, experiments in Creative Commons licensed music repositories, such as Jamendo; user generated

⁴⁷ 'Creative Commons', *Creative Commons* <<https://creativecommons.org/>> [accessed 1 March 2012].

content, through personal blogs and corporate initiatives such as YouTube; and ‘crowd-sourcing’, whether through volunteer labour as in the open-source software community or through decentralised funding initiatives such as Kickstarter are all examples of efforts to carve out alternative means for producing, accessing, and sharing cultural production.⁴⁸

Yet, many of these initiatives work within established state and legal frameworks in order to achieve their goals. Lessig, for example, is only the most visible of a large contingent of copyright reformists who see the possibility of a media commons only within the narrow scope of that which is attainable through changes in policy. Such positions seek to expand provisions for ‘fair use’ and ‘fair dealing’ to include the possibility for digital mashups of popular music or Disney films, as just two examples, to be seen as new and legitimate forms of cultural expression to be supported and encouraged by a moderate copyright law. That is to say, copyright reformist positions see the threat to the media commons in capital’s overreach in the area of copyright and intellectual property, and suggest that a moderate form of copyright is in the best interest of cultural production because cultural works themselves need to be shared in order for their utility to be enhanced, in order that culture as such can continue. Examples cited in support of a more open policy toward fair use and fair dealing are the rampant piracy of the early American film industry, musical theatre practices, and book publishing, each of which had their basis in the fact that international copyright held no sway in early America.⁴⁹ These examples give credence to the effectiveness of a ‘reasonable’ copyright because the ‘success’ of the US in the realm of cultural production had its basis in the potential for building on culture; if such a potential is legislated away by an overemphasis on permission through far reaching intellectual property laws, it is said, then how is it possible that cultural production could continue at all?

But such reformist proposals suffer from the same misplaced emphasis as does Hardin’s critique, which places responsibility for the tragedy of the commons in the hands of the owners of the cattle and not in the system of property itself. That is, reformist projects intent on bringing into existence a media commons do little to

⁴⁸ ‘Royalty Free Music Downloads | Jamendo - Jamendo’, *Jamendo* <<http://www.jamendo.com/en/>> [accessed 1 March 2012]; ‘Kickstarter’, *Kickstarter* <<http://www.kickstarter.com/>> [accessed 1 March 2012]; Jeff Howe, ‘The Rise of Crowdsourcing’, *Wired*, 2006 <<http://www.wired.com/wired/archive/14.06/crowds.html>> [accessed 1 March 2012].

⁴⁹ Adrian Johns, *Piracy: The Intellectual Property Wars from Gutenberg to Gates* (Chicago: University Of Chicago Press, 2010).

challenge the foundation of property—only its juridical reach—and do almost nothing to challenge capital’s expropriation of the common since moderate copyright laws do not prohibit capital from seizing upon, say, public domain works as a means for generating surplus value. Further, the deleterious effects of capital’s reliance on the common are left unchallenged because, in a paradoxical move, by asking capital to relax its grip on intellectual property reformist positions end up supporting the more distanced forms of control that capital needs in order to expropriate the common. As I have already demonstrated, online media distribution has already largely moved away from concerns with copyright per se and instead has intensified the monitoring and surveillance of audiences as a means to generate private wealth from the common capacities that audiences have to share and communicate. In this sense, the copyright reformist position ends up strengthening contemporary capital and leaves us with an illusory ‘freedom’ to engage in mash ups and cultural reconfiguration while capital gets the spoils.

Where piracy fits in this narrative, I suggest, is in the simple claim that a media commons already exists. The infrastructure is already fully functional and a set of evolving normative practices and customs are already operative within the context of media piracy. Such a commons has been established largely without appeal to the state and has done so largely by not accepting the foundational principles of property, and for these reasons is in tension not just with capital but also with other purportedly progressive attempts to craft a media commons. But even piracy’s relationship to a utopian media commons is itself filled with contradictions, and that is the task of the final section of this chapter to theorise.

INSTITUTIONS

As I have noted, the common today can refer equally to the identifiable material and immaterial resources *and* to the sets of practices, customs, and institutions that are involved with their creation and maintenance. The common can be understood as the productive capacity for the creation and circulation of knowledges, ideas, affects, and so forth as much as it can be seen as the results or artefacts that emerge as a result of this capacity. This form of the common is ‘dynamic, involving both the product of labour and the means of future production. This common is not only the earth we share but also the languages we create, the social practices we establish, the modes of sociality that

define our relationships'.⁵⁰ The common then, is not simply the possibility of sharing a resource or utility amongst a group of people (i.e. holding something in common, like land), but it also names the processes involved in generating and caring for this resource. Such a broad definition of the common means, for Hardt and Negri, that

‘[e]very social institution rests on the common and is defined, in fact, by the common it draws on, marshals, and creates. Social institutions are thus essential resources for the project of exodus. [...] Exodus thus requires a process of selection, maximizing the beneficial forms for the common and minimizing the detrimental, struggling, in other words, against corruption’.⁵¹

Institutions are thus a necessary precondition for ensuring that the common proliferates and for enabling the creation and maintenance of alternative forms of being against capital.

It is in this broad sense of the common that both the media circulated on digital networks and the forms and practices involved in this circulation can be said to have their basis in the common. Digital media files circulate more or less freed from their status as private property, while the means for procuring such files—the practices and customs, both technological and social—are potentially open to all. Peer-to-peer filesharing networks, whether directed towards copyright-infringing piracy or not, seem to be grappling as a whole with the question of how best to deal with the distribution and maintenance of the common. As they do so, they struggle against the imposition of a capitalist logic that seeks to contain the proliferation of media through intensified technological surveillance and national and transnational policies that seek to criminalise the institutional structures that have begun to emerge around piratical practices and the individuals that take part in them. Within this scenario, it is a matter of utmost importance to discern exactly how much and in what ways piratical practices of distribution really do encourage the production and maintenance of the common, and in what ways such forms may reinforce commodification and exclusion. Under conditions of global neoliberal capitalist accumulation, there is no guarantee that the simple existence and growth of a ‘virtual’ immaterial commons is enough to ward off the threat of the re-imposition of private property. Indeed, through a close examination of piratical practices as pertains to BitTorrent peer-to-peer filesharing, it is evident that even this

⁵⁰ Hardt and Negri, *Commonwealth*, p. 350.

⁵¹ *Ibid.*, 159–160.

broader conception of the commons requires careful stewardship of its forms if it is not to fall prey to potentially toxic and disempowering forms of managing the common.

It is on the issue of stewardship that David Harvey mounts a materialist critique of Hardt and Negri's emphasis on the reproducibility and lack of scarcity that characterises the virtual or immaterial commons of communication, affects, ideas, and so forth. For Harvey, just because this form of the common, unlike the material common, 'is not subject to the logic of scarcity, it is subject to a logic of debasement and enclosure [...] After all', Harvey notes, 'one of the most serious critiques of contemporary representations lies in the corruption of affects, signs, and codes as well as of the qualities of information'.⁵² Harvey is touching on something similar to my observation that although public sites demonstrate a lack of scarcity that can characterise digital media when it is freed from the constraints of copyright, they are, because of their very openness and accessibility, often subject to the debasing and corrupting influence of fake files, surveillance by anti-piracy groups, and low quality or corrupt media. Moreover, the logic of enclosure is precisely what is informing the exclusionary practices characteristic of private sites which, though they appear to solve the problem of debasement do so only in a way that sees the creation of a fenced in and exclusive commons. Harvey has thus offered a similar warning as did Corey Doctorow, which is that just because something appears to lack scarcity does not mean that it is not threatened by other potentially deleterious elements.

Harvey also argues that Hardt and Negri's rendering of the common and its transformative potentials consist of theories that 'remain locked [...] in the realm of immaterial abstraction and, unfortunately, never acquire concrete form'.⁵³ As a result of this, he sees their lack of alternative proposals as a potential gap that can just as easily be filled by toxic forms of the common as it could with any positive forms.⁵⁴ My aim here is not to reconcile these two positions but rather to point out that through observing online media piracy, it is possible to read together Harvey's desire for a materialist approach to the common and Hardt and Negri's desire to take a 'stance of political realism' that is against vanguards and 'ideologies of truth' and which 'begin[s] not from a version of people as we think they ought to be but from people as they are'.⁵⁵ Looking to emergent and experimental institutions of the common that have their beginnings in

⁵² Harvey, 'Commonwealth: An Exchange', p. 261.

⁵³ *Ibid.*, p. 263.

⁵⁴ *Ibid.*

⁵⁵ Michael Hardt and Antonio Negri, 'Commonwealth: An Exchange', *ArtForum*, 2009, 211–215 (p. 215).

the concrete but ambivalent practices and organisational strategies associated with media piracy suggests a way of engaging with things 'as they are'. This is because such practices, in the here and now, are attempts to negotiate the problems of debasement and enclosure. They do so in a manner that seems ripe for the type of institutional analysis that Hardt and Negri perform on the three great institutions of capitalist society: the family, the corporation, and the nation. They argue that each of these institutions has a basis in the common but at the same time debases it through practices of exclusion and hierarchy. But, they note, because these institutions both 'whet the appetite for the common and frustrate it' we should not be too hasty to dispense with those elements that frustrate, but instead look to find ways to build upon them.⁵⁶ Such a perspective, I suggest, echoes, albeit in a less specific manner, David Harvey's suggestion that '[i]n the grander scheme of things, and particularly at the global level, some sort of enclosure is often the best way to preserve valued commons'.⁵⁷ The formation of hierarchies and enclosure may at particular times and in particular scenarios be desirable when 'scaling up' commons-based activity from localised operations to a truly global commons.⁵⁸ The problem of scale appears to be precisely that which peer-to-peer networks excel at, especially at the level of efficient distribution of the end results of commons-based production, such as music, video, and software. And because they appear so effective in this regard, the practices and institutional structures and customs associated with media piracy are important vantage points from which to analyse the formation of institutions of the common.

THE PIRATE COMMON

We can clearly see the formation of institutions within the sphere of media piracy. Jonas Andersson has noted that two such entities, The Pirate Bay and Piratbyrån or 'Pirate Bureau', are foundational piratical institutions.⁵⁹ These groups have been crucial to activist projects that seek to raise public awareness around issues of copyright, access to information, and expressive freedom. The Pirate Bay, Andersson argues, is effective in this regard largely due to the mere fact of its controversial existence. As one of the Internet's most popular websites, the sheer size and continuous public presence of

⁵⁶ Hardt and Negri, *Commonwealth*, p. 164.

⁵⁷ Harvey, 'The Future of the Commons', p. 102.

⁵⁸ *Ibid.*

⁵⁹ Jonas Andersson, 'The Origins and Impacts of Swedish Filesharing: A Case Study', *Critical Studies in Peer Production*, 1, pp. 8–9 <<http://cspp.oekonux.org/research/mass-peer-activism/rs1.1-swedish-file-sharing>>.

The Pirate Bay makes it a focal point for celebration, activism, critique, and police and legal action. For anti-copyright activism, The Pirate Bay serves a crucial 'rhetorical function of asserting the justification for p2p-based file sharing and the obsolescence of copyright in its current form'.⁶⁰ The Piratbyrå, which disbanded in 2010 and out of which The Pirate Bay itself emerged, was an organisation set up to counter the Swedish state-run Antipiratbyrå (Anti-piracy Bureau). The Piratbyrå's 'goal was to start a debate on copyright issues and how they affect society. Until then, most press in Sweden would simply take everything Antipiratbyrå said for granted.'⁶¹ The Piratbyrå's activities largely centred around problematising the terms of what had been deemed the 'copyfight'. Where, for example, mainstream media would (and still do) consistently frame the contestation of copyright in terms of 'the continuing dispute over what sort of legal protection creative people or the companies that employ them should have over the ways in which their works are used', the Piratbyrå would question the foundational presumption that there should be protection at all and whether or not such a position was even feasible in a world in which the very act of copying was now an essential feature of lived existence, 'as if there was a choice between copying and non-copying'.⁶²

Copyright activism has itself flourished in a variety of guises, and does not always emanate from piracy circles. The Creative Commons efforts noted above are one such example. Such activism performs a crucial function in awareness raising and policy analysis but, I suggest, is perhaps overrepresented in research in the area of media piracy. Most of the major scholarly works that have taken up media piracy have done so in ways that focus almost exclusively on piracy's challenge to what is by now axiomatically seen as a system of copyright that is unfit for the digital world in which copying is the *lingua franca* of online communication.⁶³ Media piracy is thus almost always cast in the role of the principle antagonist in a fight against capital's overreach into cultural production and distribution. However, few scholarly works have taken up

⁶⁰ Ibid., p. 8.

⁶¹ Ernesto, 'Pirate Bay's Founding Group "Piratbyrå" Disbands', *TorrentFreak*, 2010 <<https://torrentfreak.com/pirate-bays-founding-group-piratbyran-disbands-100623/>> [accessed 1 March 2012].

⁶² 'Piratbyrå Valborg 2007', *Piratbyrå.org*, 2007 <<http://piratbyran.org/walpurgis/>> [accessed 1 March 2012]. See also Bill Thompson, 'The Copyright "Copyfight" Is On', *BBC News*, 18 February 2005, section Technology <<http://news.bbc.co.uk/2/hi/technology/4277075.stm>> [accessed 1 March 2012].

⁶³ Marcus Boon, *In Praise of Copying* (Malden, MA: Harvard University Press, 2010); Kembrew McLeod, *Freedom of Expression(TM): Overzealous Copyright Bozos and Other Enemies of Creativity* (New York: Doubleday, 2005); Siva Vaidhyanathan, *Copyrights and Copywrongs: the Rise of Intellectual Property and How It Threatens Creativity* (New York: New York University Press, 2001).

the internal dynamics of specific modes of piracy in order to mount a type of immanent critique of their organisational practices and social and technological customs. It is possible to expand Andersson's perspective on the importance of pirate institutions in such a way that takes into account both the external relationship that certain forms of media piracy have to copyright law, and to capital more generally, but also piracy's internal dynamics in order to critique them 'from within' in a way that takes up the challenge of determining and assessing piracy's role in the expansion of the common.

In this way, we can determine to what extent public and private BitTorrent piracy is able to participate in a process that Casarino refers to as the project of generating 'surplus common'.⁶⁴ The surplus common is that which exceeds capital's valorisation processes, and in doing so challenges them. It is crucial though that '[t]his surplus not only is not measurable or quantifiable but also is not a thing or collection of things at all'.⁶⁵ By this, Casarino encourages us to think even more about the common as a process or a way of engaging with the world that is not directed toward the quantification of capitalist surplus *value*. Surplus common, he argues, is as much, if not more, about potentials than it is about measuring or identifying an opposition between capital and the common. Indeed, as I noted above, capital has a vested interest in propagating the notion that capital and the common are one in the same. It is for this reason that Casarino foregrounds that surplus common is potential as such, and suggests that the key task is not determining that which is surplus value and that which is surplus common, but rather noting that there is in fact *the one and only surplus* which can be actualised in opposing ways. Casarino argues that

there is only one surplus, which may effect and be effected in different ways. On the one hand, surplus is that which capital strives to subsume absolutely under surplus value and yet manages to do so only relatively because it is structurally unable to subsume without at the same time negating and foreclosing that which it subsumes—thereby enabling the emergence of surplus common. On the other hand, surplus is also that which envelops and subsists in the common as surplus common, that is, as the common's distinct yet indiscernible element of potentiality, and hence also as the condition of possibility of all the common's fully exploitable and subsumable actual elements—thereby enabling the

⁶⁴ Casarino.

⁶⁵ *Ibid.*, p. 22.

emergence of surplus value.⁶⁶

Again, capital and the common are in lock step, one seemingly enabling or foreclosing the potential for the other. Capital cannot fully valorise that which is common without threatening the capacities of the common to be exploited, while the common as a precondition for all productive activity always risks being subsumed and valorised as private accumulation. The key for Casarino, though, is not to see this as a vicious cycle, a ‘serpent swallowing its own tail’, but rather to shift focus to actualising the surplus, but ‘actualizing without foreclosing that which enables us to actualize in the first place’.⁶⁷ By this he is referring to Hardt and Negri’s conception of the common, as I noted earlier, as both a precondition for productive activity that is threatened by limits that are placed on it when directed toward private (neoliberal-capitalist) accumulation or public (socialist) control. To not foreclose the common as it becomes actualised as surplus means recognising that

[t]he qualitative difference between capital and the common consists in positing surplus in different ways, in engaging surplus to different ends. Surplus value is living surplus as separation (in the form of value par excellence, namely, money). Surplus common is living surplus as incorporation [...] in the forms of the common.⁶⁸

I argue that media piracy in general, and public and private BitTorrent sites in particular, are tentatively pointing toward the positing of the surplus—the near infinite reproducibility of digital media—as incorporated into the common. Piracy is oriented away from separation, since it is largely a collective endeavour, even at the level of the BitTorrent protocol, which as a precondition requires at all times at least one seeder and one leecher in order to be considered *sharing* at all. These sites, whether public or private, exist only in as much as they are a means for users to connect to one another, and it is only through this interconnectivity, this incorporation multiplied over millions of participants spread across an ecology of disparate sites, that piracy can become exceedingly adept at freeing digital media from the bounds of copyright. But, the surplus common that is touched upon (but not yet fully realised) by piracy is not just the ‘collection of things’ that are shared over the network. Despite the fact that the ‘collection of things’ has been the primary point of contention between piracy and capital and the almost exclusive focus of much filesharing scholarship, public and

⁶⁶ Ibid.

⁶⁷ Ibid.

⁶⁸ Ibid., p. 23.

private sites as burgeoning experimental institutions of the common also point toward the generation of a surplus common in the form of productive processes and as subjectivities oriented toward the common. This is because their organisational structures, technological implementations, and sets of social and cultural customs are equally as important as the ‘things’ they are dedicated to circulating. As with the media / creative commons perspective above, ‘[t]he sole focus upon “copyright freedom” sweeps away consideration of the processes of valorisation active within the global factory without walls’.⁶⁹ Such a focus potentially blinds us to other, just as crucial aspects of the relationship between capital, media piracy, and the common.

Consider the variety of material that is available online for no cost and how this availability is facilitating largely anonymous yet significantly large aggregates of connected users. In this scenario server space is distributed and transmission speeds are dependent on the aggregate speeds of all users, a common. Organisationally, the phenomenon of media piracy is anything but a free for all. Piracy is facilitated through a relatively clear but continuously evolving and largely self-organising and self-governing set of practices and customs. Online media piracy thus appears as the formation of institutions of a global commons that contest and are contested by capital. As institutions they are constantly under threat of eradication from both external forces, such as intensified surveillance and policy arrangements that exist to further the interests of property, and also from internal forces, such as new forms of commodification and enclosure. The task for understanding piracy specifically and for the common more generally is to remain constantly vigilant in efforts to determine which existing and emergent institutions benefit the common and which do not. As institutions, the various spaces and technologies associated with filesharing are generating operative principles that are suited to a specific task, which is democratising access to media. These principles at times involve some sort of hierarchy or enclosure in order to guard against debasement of the common. But it is also the case that such arrangements may themselves debase the common by redirecting it toward privatised and exclusive access. Similarly, the task of democratising access may be served by opening access to all by eliminating private accumulation of any sort. At the same time, these efforts may risk debasing the common by also allowing for the greater possibility

⁶⁹ Martin Hardie, ‘Change of the Century: Free Software and the Positive Possibility’, *Mute*, 2006 <<http://www.metamute.org/editorial/articles/change-century-free-software-and-positive-possibility>> [accessed 1 March 2012] quoted in Matteo Pasquinelli, ‘The Ideology of Free Culture and the Grammar of Sabotage’, *Generation Online*, 2008 <www.generation-online.org/c/fc_rent4.pdf>.

of corruption. It is thus crucial not only to see pirate institutions in their oppositional relationship to copyright, but also to understand the way that internal organisational dynamics support and subvert aspects of the common.

The public and private BitTorrent sites discussed throughout this thesis can be considered institutions in so much as they are bounded and knowable spaces that promote a specific set of ideals and provide a framework for actualising these through a set of evolving technological, social, and economic practices. Moreover, they are sites that are frequented by many millions of users and in this sense have come to be relied upon as primary conduits to accessing digital media. Yet they differ a great deal from more traditional institutions. They are considerably transitory, likely to appear and disappear quickly. It is evident that many of the commons-enhancing capacities of either private or public sites often rest on or are inextricably linked to strategies or paradigms that simultaneously denigrate the common. It is precisely because of these internal contradictions that specific forms of piracy need to be analysed more fully in order to temper the extreme assessments of piracy on either end of the ‘copyfight’ spectrum that are characteristic of contemporary commentary on piracy. More importantly such an analysis can create the conditions for identifying and potentially improving upon those existing practices that seem most well-suited to enhancing the common. Here, I build on Hardt and Negri’s formulation of the common as not merely a set of resources to be shared among users, but rather as a condition of possibility for all productive activity. The common produces and is produced through these capacities and is in this sense ‘legion’, and has at its foundation the ‘potentiality for thought common to all human beings [...] not the solitary activity of separate individuals, [but the] collective, incessant, and incremental practice of a common humanity.’⁷⁰ Casarino’s observation that as both process and result, the common can be considered a continuous self-producing, self-positing, and self-referential production and maintenance of human capacities for collaborative knowledges, for the sharing of ideas, and for the creation of affects means that it is important to see these pirate institutions ‘as they are’, which, I suggest, is as emergent institutions—experiments in new ways of dealing with the complexities of a world of digitised information.⁷¹

Casarino’s tripartite division of the commons as ‘for others’, ‘in itself’, and ‘for itself’ is a useful framework for approaching public and private sites’ relative successes

⁷⁰ Casarino, p. 8.

⁷¹ *Ibid.*, p. 17.

and failures in relation to their capacities to enhance or denigrate the common. The common 'for others', Casarino notes, is the common 'as result' of productive capacities which themselves find their basis in the common as a precondition for productive activity, or the common 'in itself'. The common 'for itself' is in turn the condition of possibility for both of the others and is involved in the nurturing of subjectivities oriented toward the production of surplus common not yet realised.⁷² However, it is important not to see thinking through media piracy as generating a simple list of pros and cons. The experimental nature of pirate institutions means we should treat them not as models for future commons but rather, as Stavros Stavrides notes of the organisation of Zapatista municipalities, 'more like instances of a new world trying to emerge and not prototypes of what the world should become'.⁷³ As experiments in a emergent commons, public and private BitTorrent media piracy reveal an ambivalence with regard to their positioning *vis à vis* the generation of surplus common. As forms of the common 'for others', or their capability of providing open and free access to cultural distributions, both forms demonstrate different capacities for actualising the common: one is restrictive and exclusive, the other open and accessible. As the common 'in itself', the organisational and structural elements of each variant speak to different strategies for engaging with the common as a sphere of productive activity, as a precondition for the distribution of digital media files: one is largely hierarchical and based around notions of command-and-control, while the other largely dispenses with hierarchy. As the common 'for itself', public and private sites rest on dramatically different conceptions of pirate subjectivity, and invoke disparate strategies for fomenting in their users and members a subjectivity that is amenable to the common: one encourages obligation and reciprocity through the imposition of rules and regulations, while the other trusts that the 'organic' capacities of participants who want to share will be actualised given a venue to do so. And yet there are internal ambivalences too. In each case, where each form succeeds on one level, it fails on another. The structure of the above criteria should be seen primarily as an analytical one to help, as Stavrides encourages, in the process of developing 'principles through which we can judge which communities actually fight for commons'.⁷⁴ In practice, each of these elements is crucial to the formation and maintenance of the common and is, as

⁷² Ibid., p. 16.

⁷³ Massimo de Angelis and Stavros Stavrides, 'On the Commons: A Public Interview with Massimo De Angelis and Stavros Stavrides', *e-flux*, 2010 <<http://www.e-flux.com/journal/on-the-commons-a-public-interview-with-massimo-de-angelis-and-stavros-stavrides/>> [accessed 1 March 2012].

⁷⁴ Ibid.

Casarino reminds us, synchronic.⁷⁵ Each impacts and finds expression in the other and features of one tend to spill over into features of another.

Thinking media piracy in terms of the ‘common-for-others’ is a way of conceiving of the common ‘as result’, and in terms of piracy involves noting the ways in which public and private sites facilitate the common access to cultural production. The accessibility of the sites, the quantity, availability, and quality of the media available and the ease of searching and finding are crucial to facilitating this access. Public sites prize openness and accessibility, they have low barriers to participation, and anyone with a basic knowledge of BitTorrent can obtain media through these sites. Sites such as The Pirate Bay, ISO Hunt, Torrentz, and others have millions of users and index millions of torrent files as a result.⁷⁶ The selection of media that is available across the spectrum of publicly accessible sites is large and diverse, has greater potential to be of low quality and generally suffers from a lack of seeders and an overabundance of leechers. This means that though the selections may be large, it is not uncommon to find many torrents lacking seeds. Diversity suffers as a result of popular media being well-seeded and more esoteric fare hard to come by. At the same time, public sites typically do not police their sites for content, which, combined with fairly basic search functions that often result in bewildering lists of unrelated content, results in the need for their users to develop nuanced tactics for utilising the asynchronous interactivity of comments sections as a means for self-curating the content found on these sites. The potential for debasement of the common looms large at public sites. Poor quality digital transfers abound, as does duplicate content. Importantly, partially as an effect of the sites’ accessibility, they are also targets for intentional corruption by those seeking to debase the media common for malicious purposes, such as spreading malware. Additionally, as I noted in Chapter Three, they are open to countermeasures by anti-piracy outfits that seek to corrupt the network by seeding fake torrents or enacting surveillance of the network in order to collect data for legal action.

Private sites, by contrast have high barriers to entry. The vetting processes of the interviews, invites, and applications all privilege technical expertise and assess the ‘character’ of potential members in order to test their commitment not just to

⁷⁵ Casarino, pp. 16–17.

⁷⁶ Ernesto, ‘Pirate Bay User Database Compromised and Exploited, Again’, *TorrentFreak*, 2011 <<https://torrentfreak.com/pirate-bay-user-database-compromised-and-exploited-again-110320/>> [accessed 1 March 2012]; Glenn Peoples, ‘Business Matters: Pirate Bay Claims 5 Million Registered’, *Billboard*, 2011 <<http://www.billboard.biz/bbbiz/industry/digital-and-mobile/business-matters-pirate-bay-claims-5-million-1005118512.story>> [accessed 1 March 2012].

downloading material, but also to uploading and sharing media with other members. Their individual membership numbers tend to be small in comparison to public sites, but in the aggregate, the amount of torrents shared through private sites is considerable.⁷⁷ The selection of media found on private sites tends to be large and diverse, especially in the case of the more established trackers like SITE F, SITE E, SITE C, and SITE A. Largely this is a function of the incentive systems such as the share ratio, which see members seeding more torrents for longer periods of time. As a result, however, private sites also suffer from an overabundance of seeders as members compete to maintain their ratio buffers, and are selective in what they download so as not to place their downloading privileges at risk. Search functions on private sites are generally far more sophisticated and efficient than the search functions of public sites. Private sites privilege detail, and require that members include a great deal of information about the torrents they share. As a result, the database search functions allow for greater specificity through boolean search operators, and, especially for those trackers that use the Gazelle content management system pioneered by SITE F, through highly detailed torrent and artist pages. Oversight is crucial at private sites, which means that the potential for corrupt torrents, fake files, and anti-piracy industry-sponsored torrents is mitigated as members of high user classes combine with the general membership to constantly police the content that is shared and thus minimise the potential for debasement.

In terms of the common-for-others—access to the collection of things—public sites succeed at opening access to cultural production, but do so in a way that sees greater potential for the debasement of the common through corrupt and low quality content. Private sites restrict access and through hierarchical oversight mitigate the potential for corruption. Public sites are egalitarian, requiring minimal competency with the technologies involved, and are open toward the common-for-others through an inclusive participatory regime in which anyone can share anything, yet they retreat from the common-for-others by not providing a means to guard this common against debasement. Private sites are exclusive and see the results of common production closed off and valorised as a form of private ‘wealth’ in so far as only those who have proven themselves worthy to be accepted as a member—through the vetting processes—are permitted to enjoy the spoils. They are oriented toward the common-for-others, but only

⁷⁷ Chao Zhang and others, ‘BitTorrent Darknets’ (presented at the IEEE Conference on Computer Communications (INFOCOM’10), San Diego, 2010) <<http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.157.7563>>.

certain ‘types’ of others are deemed worthy by site administrators. Neither form of piracy is fully open to the common-for-others.

Public and private BitTorrent sites as a form of the ‘common-in-itself’ means thinking about the important ways in which the means of organisation differ between the two forms and assessing the various ways in which these organisational elements facilitate the common as a productive process. Criteria for use and sites’ expectations of users are differences that impact the ability of the sites to create the conditions of possibility for access to media content. They also have major repercussions on the production of commoner subjectivities addressed in the third area of the analysis below. These factors need to be considered as part of a site’s broader position with digital media distribution, and thus the orientation of the productive efforts of users and administrators is also crucial. Issues of the valorisation of audience labour come to the fore here since the generation of surplus common means refusing valorisation as surplus value. Thus, the common here is not seen from the standpoint of the ‘objects’ of piracy, the digital media files, but rather from the perspective of the engagement of pirate site users and administrators and their roles in the collective construction and maintenance of the sites as entities for distribution of cultural production.

Public sites are organised in an egalitarian fashion that sees access to digital media as the primary goal. This access is facilitated through openness. Nothing is expected of users; there are no incentives or punishments for adhering to or disobeying rules. Public sites are largely anarchic spaces that, devoid of hierarchy, trust in the capacity of their users to self-regulate the flow of information. As a means of producing access, this has worked remarkably well since public BitTorrent sites usually rank fairly high in worldwide statistics about online destinations, with many of the larger public sites appearing in the top five hundred websites catalogued by Alexa.com.⁷⁸ Their egalitarian organisation means that users themselves are highly involved in creating and curating the database of media available through the sites. Comments fields provide a forum for users to communicate with one another about the relative merits and problems with specific torrents, while discussion forums create a space for debate and quotidian discussion. Users have no responsibility to the site or to other users, which means that public sites are exemplary of a certain type of obligation-free media access that parallels the type of access imagined by the proponents of the commercial ‘celestial jukebox’, which I took up in Chapter Six. The fact that there is no monetary transaction needed to

⁷⁸ ‘Alexa Top 500 Global Sites’, *Alexa* <<http://www.alexa.com/topsites>> [accessed 1 March 2012].

access material through a public site does not detract from the fact that, at base, downloading media on a public site is, much like a commodity transaction, a private endeavour that requires little in the form of mutual obligation and reciprocity. It is largely through the lack of requirements, such as the share ratio, that public sites suffer from a chronic lack of seeds. Average users of public sites, much like average patrons of record stores or legal online services, ‘use’ the sites instrumentally and work from a means-to-end logic that sees them as download-oriented.⁷⁹ Yet, despite this, there are seeds. In some way, public sites are able to tap into users’ desire to share. However, many of these seeds may in fact themselves be interested in developing a popularity that leads to potential profit. As Cuevas *et al* reveal, there are levels of piracy that are concerned to publish in advance of official release content that has been secured directly from music or movie studios. These seeds publish information along with their torrents that directs users to visit advertising-supported websites; they are responsible for much of the initial seeding that takes place on torrent sites.⁸⁰ In a similar fashion, public sites need to generate revenue in order to cover the considerable operating costs associated with running a large site, and in order to do so they too employ advertising. As I noted in Chapter Six, though it has yet to be proven that the sites actually generate significant profit from this advertising, I suggest that their appropriation of the logic of audience commodification is important because as much as public BitTorrent sites facilitate the commons-for-others through a rejection of the rule of copyright and the commodification of digital media, they shift commodification to a different, and potentially more damaging, register. In so doing, they parallel strategies used by legal commercial services to valorise as surplus value the common creative capacities of their users to communicate about media, to share it with one another, and to self-curate the database of available material. Audiences, who through their sharing habits are oriented toward the common-for-others and the common-in-itself, are packaged into informational commodities and exploited as a means to generate surplus value *at the same time* as their activity generates surplus common in other ways.

Private sites are organised around a logic of exclusion that, in contrast to public

⁷⁹ Adele L. Jia and others, ‘Fast Download but Eternal Seeding: The Reward and Punishment of Sharing Ratio Enforcement’, in *2011 IEEE International Conference on Peer-to-Peer Computing (P2P)* (Tokyo, 2011), pp. 280–289.

⁸⁰ Rubén Cuevas and others, ‘Is Content Publishing in BitTorrent Altruistic or Profit-Driven?’, in *Proceedings of the 6th International Conference on Emerging Networking Experiments and Technologies* (ACM CoNEXT 2010) (Philadelphia, PA: Reza Rejaie, 2010) <<http://e-archivo.uc3m.es/handle/10016/10116>>.

sites, sees quality and efficiency as the highest priority; access, in the sense of egalitarian public openness, is secondary to the goal of minimising the debasement of media catalogues as a result of poor quality and duplicate media and under-seeding. Quality as a guiding principle is expressed in the vetting process, the regulations that govern the types of media allowed on a private site, and the development of sophisticated search mechanisms. The importance of efficiency is reflected in the incentive of the ratio, which means that more members will continuously seed content, which in turn means that torrent swarms will be more efficient since there will be many seeders. Efficiency is also reflected in the search mechanisms and organisation of the database into subcategories, through tagging, and in the development of torrent and artist pages that provide a great deal of detail on each torrent. All of this is primarily driven by the membership themselves, who, since they have been vetted through applications, interviews, and the social trust developed around invites, are generally oriented toward providing detailed information about torrents and contributing not just to the catalogue of shared media, but also to the informational content of the site as they edit torrent pages, create and edit wiki pages, and tag releases. Yet, the strict rules and regulations that are directed toward enhancing the quality of content and efficiency of searching and file transfer also mark private BitTorrent sites as profoundly anti-democratic. Just as in public sites, memberships have little to no control over how the sites are run, and they are under constant surveillance and threat of punitive measures should they deviate from these rules. The site administrators are secretive about important aspects of the site, especially the flow of donation money, which, as I noted in Chapter Five, results in a great deal of suspicion as to the site owners' motivations. As with public sites, it is difficult to know the specifics of how much donation money is collected, where it is put to use, and who benefits most from the members' generosity. The donation paradigm emerges because many sites eschew the type of audience commodification that characterises public sites. They refuse, as I noted in Chapter Six, to valorise the immaterial labour of their members as surplus value; instead they valorise their members' productive activities in the increased utility of the site. However, by doing so they also foreclose access to the common-for-others as they subject their members to surveillance practices similar to those used in the celestial jukebox: members' sharing habits are tracked, assessed, and valorised. But here is an example of what Casarino touches upon above when he writes of the importance of attending to articulation: private sites, like public sites, and like commercial venues,

collect data about their users. Like commercial sites they use this data as a means to add to the productive dimensions of the sites. But, crucially, the valorisation of information about members is articulated in an orientation toward the generation of the common-in-itself, through increases in the productive capacities of a private site to provide access (for the select few) to high quality media.

In terms of the ‘common-in-itself’—the common as productive activity—the *laissez faire* approach of public sites sees users engaging in activity very similar to commodity transactions: even though no money is exchanged users can instrumentalise the sites as a means to downloading, and are neither encouraged nor compelled to share back what they have taken. It is the labours of public site users that make the sites function as repositories and through-paths to digital media circulation: the communication, willingness to share, and self-curation that each compensate for the hands-off approach to oversight combine to create the conditions for the production of a common-for-others. But in this moment, and as a result of the productive activity of users, their labours are commodified through advertising. They become informational commodities, bought and sold, and in this way what always looms is the potential that their common-oriented activity will be valorised as private surplus value for the site ownership. The hierarchical regulatory approach of private sites is exclusionary, and based on the privileging of technical acumen and character traits that are amenable to sharing. The membership demonstrates a sizeable commitment to the ideal of sharing and contribution, and as a result private sites become a robust and efficient means for autonomously producing deep catalogues of material and environments in which such activity is both rewarded and increases the effectiveness of the site. Such sites refuse to commodify their membership as surplus value, they direct the productive capacities of the membership toward growing the utility of the site, and prefer instead to rely on voluntary monetary support. Ultimately, private sites are oriented toward generating surplus common as the condition for productive activity, but along the way they ‘define themselves as common [...] by excluding others from their milieu, from their own privileged commons’.⁸¹ Again, public and private sites make contradictory moves in terms of their relation to the common; on the one hand the conditions of production always risk being subsumed as surplus value and, on the other, when they are not valorised in that way it comes at the cost of access as restrictive practices and draconian rules appear to be the only safeguards against subsumption.

⁸¹ de Angelis and Stavrides.

‘The common-for-itself’ is a way of thinking about the various ways that sites encourage the production of a ‘commoner subjectivity’. Subjectivity, argues Casarino, is crucial for creating the preconditions of production and results that are oriented toward the common and away from the ‘common-as-captured by capital’.⁸² This perspective looks to how public and private sites instil such ideals as reciprocity, obligation, contribution, and so forth, and how users come to see themselves within these coordinates of action and interrelation. It is crucial to identify these aspects of piracy because

[t]o claim back and seize the common as production entails a drastic reorientation of subjectivity such that one might begin to distinguish between, on the one hand, the common as its own foundation and, on the other hand, the common as the foundation of its own negation in capital. It entails the production of a form of subjectivity constitutionally unable any longer to be interpellated by and to identify with the capitalist desire to posit itself as indistinguishable from the common.⁸³

In terms of public and private this means emphasising the role of productive capacities not as a form of activity only to be later valorised as surplus value, but to see such capacities as holding within the possibility of growing the wider common. Public sites perform this discursively by publicly resisting the valorisation of creativity through copyright, and to be sure the publicity received by public sites, especially The Pirate Bay, has brought to the fore issues of copyright and Internet policy in ways that have seen the organisation of various copyright activist groups and even political parties, such as the Pirate Party International and national variants.⁸⁴ Furthermore, the publicity received by The Pirate Bay actually saw its popularity and the popularity of other torrent sites rise, even in the wake of the guilty verdict against the four founders of the site.⁸⁵

Publicity drove people to experiment with Napster too, and such public presence appears to encourage people, even if only fleetingly, to participate in these experimental places for circulating cultural production. Such experiments can sow the seeds for shifts in subjective appraisals of the ways in which information is circulated, and can draw

⁸² Casarino, p. 17.

⁸³ Ibid.

⁸⁴ ‘Piratpartiet | Integritet - Kultur - Kunskap’, *Piratpartiet* <<http://www.piratpartiet.se/>> [accessed 1 March 2012].

⁸⁵ ‘The Pirate Bay Guilty; Jail for File-Sharing Foursome’, *Wired*, 2009 <<http://www.wired.com/threatlevel/2009/04/pirateverdict/>> [accessed 1 March 2012].

attention to the restrictive tendencies of capital's attempts to expropriate the common via anti-piracy policy and expansive copyright law.⁸⁶ As Siva Vaidhyanathan noted in the mid 2000s: 'How many people are happy with the current intellectual property systems, American or global? Whether the audience includes students, professors, hackers, librarians, musicians, filmmakers, executives, or copyright lawyers, I have yet to see a hand pop up. Everyone is frustrated with some aspect of copyright today'.⁸⁷ This in itself is remarkable given that until recently copyright itself was an esoteric topic reserved for corporate lawyers and pharmaceutical and media industry executives. Now, however, even a casual perusal of user-created videos on a site like YouTube will often find videos that have appropriated existing popular culture texts accompanied by 'disclaimers' made by creators in which they declare that they know the material isn't 'theirs' but they don't intend to break copyright. To be sure such claims demonstrate a generalised misunderstanding about copyright law (it does not matter what one *intends*), but they do demonstrate a general awareness that there is something *out there* called copyright and it presents some kind of a threat to one's ability to express oneself through reconfiguring existing texts. This awareness is furthered by the developing practice of horizontally flipping videos so that they can bypass YouTube's content filtering. Awareness, in this case, begets a tactic for working against copyright and for resisting, partially, capital's reach into cultural distribution and personal expression.

I raise these points in order to point out that the road to developing the type of subjectivity that Casarino describes begins, perhaps, with a generalised awareness that something threatens the common, even if one is unable to express what this threat is or why and how it relates to the common. Returning to media piracy, public sites also encourage the development of subjectivities amenable to the common by merely demonstrating that it is possible, say, to find popular television shows available via BitTorrent sometimes minutes after the broadcast has finished, or popular (or even not so popular) films available sometimes months before their release on DVD. Indeed, as Andersson noted above, sometimes by 'merely existing' a site like The Pirate Bay or any number of other pirate sites can have disruptive effects on the ways that people view their subjective relations to the distribution of cultural production, even if they are,

⁸⁶ The recent protests against the SOPA bill in the US, though coopted by the corporate presence, and the ACTA treaty globally suggest that there is growing knowledge and discontent with attempts to extend the battle against piracy into realms that will restrict all sorts of online pursuits. This alone I suggest is evidence of a growing recognition of the common.

⁸⁷ Siva Vaidhyanathan, 'Celestial Jukebox: The Paradox of Intellectual Property', *The American Scholar*, 74 (2005), 131–135 (p. 131).

as Andersson notes, ‘caught between a propulsion toward *solidarity and public collectivism* and a predisposition toward *individual autonomy and personal freedom to maximise pleasure*’.⁸⁸ Andersson sees in the activities that circle around The Pirate Bay, and we could extend this to the broader public BitTorrent ecology more generally, the emergence of a form of ‘subactivism’ that reflects Maria Bakardjieva’s claims about the importance of ‘small-scale, often individual, decisions and actions that have either a political or ethical frame or reference’ but which are ‘difficult to capture using the traditional tools with which political participation is measured’.⁸⁹ The subjective, private experience of downloading media through a public site thus takes on a political contour when coupled with the awareness, which is obvious from the moment one visits the site, that potentially millions of others are doing it at the same time.

But I stress again that a focus on subjective shifts that understands them only once they have become publicly expressed through some form of activism or subactivism centred around the copying and reproducibility of objects once more finds us back in the territory of the ‘collection of things’. The common is not just the ‘result’ of the commonly accessible products. It is also the productive process as such, and the field of subjectivities, the common-for-itself that exist as a precondition for productivity and production. Private sites seem to touch on these aspects of the common more directly than public sites do, which, as with their approach to policing content and directing user labour, is similarly *laissez faire*. Private sites attempt to legislate, from the very beginning, values of obligation and reciprocity. Echoing Mauss’s observation that obligation lies at the heart of all gift relationships, private sites adopt this principle as a means to ensure a growing and consistently available catalogue of media.⁹⁰ Private sites attempt to stimulate what David Graeber, echoing Mauss, calls a form of ‘baseline communism’ or ‘the understanding that, unless people consider themselves enemies, if the need is considered great enough, or the cost considered reasonable enough, the principle of “from each according to their abilities, to each according to their needs” will be assumed to apply’.⁹¹ Graeber is, I suggest, describing the common-for-itself, the notion that the precondition for all productive activity and social relations has its basis in some foundational sense of obligation expressed in activities that take place beyond

⁸⁸ Andersson, p. 7.

⁸⁹ Maria Bakardjieva, ‘Subactivism: Lifeworld and Politics in the Age of the Internet’, *The Information Society*, 25 (2009), 91–104 (p. 92) <doi:10.1080/01972240802701627>; Andersson, p. 4.

⁹⁰ Marcel Mauss, *The Gift: The Form and Reason for Exchange in Archaic Societies* (London: Routledge Classics, 2002).

⁹¹ David Graeber, *Debt: The First 5,000 Years* (Brooklyn: Melville House, 2011), p. 98.

rational market calculation. Richard Barbrook has called the expression of such baseline communism a form of 'cybercommunism'. In Barbrook's formulation, participation on the Internet involves a type of unwitting or spontaneous communism in which 'by adding their own presence, every user is contributing something to the collective knowledge accessible to those already on-line. In return for this gift, each individual obtains potential access to all the information provided on the Net by others'.⁹² Private sites, through the ratio requirement, foreground this exchange of one gift for another in the sets of rules that oblige users to give a certain amount of what they take through their association with the site. The only way that a member of a private site can continue to reap the benefits of being a member—the diverse, large, and consistently available catalogue of media—is to continue to share back media to the wider membership. Such an activity pushes beyond the type of obligation that Mauss imagined between individuals and groups and toward a modern conception of the 'gift between strangers' in which the mutually obligatory relations are spread across groups unknowable to the giver and the 'benefits' accrue not just to individuals but to the wider society.⁹³ And indeed, an important aspect of the enforcement of share ratios is the increased utility of the site since the result of members all working to maintain or exceed their ratio requirements in order to keep their downloading privileges is the continuous seeding of a large and diverse catalogue of media that is almost always accessible.

The relations of obligation and reciprocity that appear on private sites are not 'spontaneous' but are required of each and every member. As sharing subjects, members are compelled, and in virtual terms coerced into sharing media. Though no one is coercing a filesharer to become a member of a private site, the internal dynamics of the site become competitive as members climb the hierarchies of user classes in order to access restricted site features or, in some cases, to gain power on the sites. Success at maintaining a share ratio, as I demonstrated in Chapter Five, is the subject of much debate and commentary across filesharing blogs and news sites, with people recommending anything from uploading material from other sites, borrowing CDs from the library, and raiding the collections of friends and relatives, all to get an upper hand on a private site whose 'ratio economy' may be dominated by those members who have paid for the speed and consistency of a seedbox. The share ratio pulls the common-for-

⁹² Richard Barbrook, 'Cyber Communism', *Imaginary Futures* <<http://www.imaginaryfutures.net/2007/04/17/cyber-communism-how-the-americans-are-superseding-capitalism-in-cyberspace/>> [accessed 1 March 2012].

⁹³ Jacques Godbout and Alain Caillé, *The World of the Gift* (Montreal: McGill-Queen's University Press, 1998), pp. 65–78.

itself in two directions: on the one hand, by requiring that members *share back to the site and not to specific individuals*, members are apt to take this on as a personal obligation to the whole—the ‘strangers’ on the site—especially as they see the benefits to themselves as a result of others’ commitment to sharing back; on the other hand, the obligation to reciprocate pushes the common-for-itself into a competitive territory that reflects many of the competitive aspects of contemporary neoliberal ideology that sees individual self-maximisation as the primary motivator in any form of social or economic relation. Users seek ways to improve *their* ratio so that *they* can continue to download for *themselves*. The benefits to the enclosed common are in this sense the ‘positive externality’ of the self-interested activities of individuals. But presumably, before seeking out an invitation to or sitting an interview to join a private site, a filesharer would know of these requirements. This is especially the case with SITE F, which publishes an interview preparation site that covers in great detail individuals’ responsibilities should they become members. In this case, like the nascent subactivism of the public sites, those who join public sites are in some small way taking a step toward the common-for-itself, even if they are not necessarily aware that they are doing so.

What does all this mean for the production of subjectivities that desire to be in common? As I noted above, any notion of a pirate commons must be seen as an experimental space. These are not spaces where fully formed common-oriented subjects work together to consciously create and expand the common. As I noted with relation to the discussion forums, media piracy is a quotidian activity, which suggests that some form of naturalisation of the idea that media is freely available has taken root. In this way, I suggest that subjectivities oriented toward the common are constituted by an ongoing project that involves both outside influence, such as the ratio requirements and incentives of public sites, and the internal experience of freedom to engage in media sharing that characterises the openness of public sites. In both cases, subjects come to the sites already somewhat prepared to question the necessity of private property, since they are willing to download that which they would otherwise have to pay for. The power of public sites lies in their preference to see these subjects experiment for themselves in how best to negotiate the complex terrain of public media. The hierarchical organisation of private sites demonstrates to those who do gain access just how sophisticated one’s involvement with the common-for-itself can be when it becomes organised

CONCLUSION

This chapter was concerned to analyse public and private BitTorrent media piracy from the perspective of the common. I noted that the relationship between the common and capital is one that sees capital constantly threatening to expropriate that which is created in common in order to valorise it as private property. It was also noted that the common can never be fully captured by capital. There is always an excess, that in that excess there is potential for emancipation from capital. This is because the more that capital relies on the common for its productive capacities, the greater the potential for the common's escape. And the more that capital places limits on the common's potential, the more it threatens that which it must subsume as surplus value.

Despite the seeming disconnect between Hardt and Negri's abstract rendering of the common and David Harvey's materialist critique, I argued that the two positions could be fruitfully combined in developing a theory around institutions of the common. Because Hardt and Negri stress the importance of institutions in the project of exodus from capital, and because Harvey stresses the need to look to actually existing practices, or concrete actualisations, I argue that public and private BitTorrent sites can be seen as nascent experimental forms of institutions oriented toward the common. As institutions they are primarily concerned with re-appropriating cultural production from capital and turning it back into the common. This is what Cesare Casarino sees as the common as 'result', or, the products as common.

Drawing on Casarino's tripartite understanding of the common I argued that public and private BitTorrent media piracy are ambivalent phenomena that both support and subvert an orientation toward the common. I thus analysed each form of piracy as actualisations of the common 'for others', 'in itself', and 'for itself'. It was shown that public sites, though they are exceedingly good at opening access and thus expressing the common 'for others', they constantly risked the debasement of the common. At the same time, private sites remedied the debasement of the common, but only at the expense of open and free access. As productive spaces, as the common 'in itself', I argued that on the one hand the conditions of production at each type of site make contradictory moves. Public and private sites both see their users as the primary productive force in creating the conditions for the 'common-for-others'. Yet, in public sites this productivity is always under threat of subsumption as private surplus value through the use of advertising, while on private sites, the benefits of these productive

capacities are shared only among the few privileged enough to be part of the site. As examples of the 'common-for-itself' I argued that two different approaches to the important dimension of subjectivity were evident. Public sites took a *laissez-faire* approach, requiring very little of their users but for their voluntary participation. Private sites, in contrast, attempt to legislate forms of obligation and reciprocity. What is most crucial to remember though is that as experimental institution, the subjects that participate in them are also nascent in their orientation toward the common. Each approach involves, for users, new ways of thinking about how media can be circulated, bids new perspectives on the role of private property as expressed through copyright, and hastens new ways of thinking about cultural circulation as an autonomous, collective, collaborative, and productive activity.

CHAPTER EIGHT: CONCLUSION

This thesis has argued that a greater attention to specific forms of media piracy is necessary in order to break free from the dominance of copyright as the primary frame for thinking about the relationship between piracy and capital. I suggested that approaching the specificity of piracy's social and technological valences reveals that it is highly ambivalent with regards to its capacities to challenge regimes of property and commodification. The dominance of copyright has obscured other potential vital areas for research in the realm of media piracy. By paying greater attention to the specifics of certain forms of media piracy, I argue that we can come to a greater understanding of piracy's potential to reach beyond the narrowness of its challenges to intellectual property; we can come to understand piracy as a transformative yet ambivalent force.

I analysed two distinct but related forms of media piracy: public and private BitTorrent search websites. Public sites are among the primary venues for online media piracy and at times many of them have entered into some of the most frequented websites on the World Wide Web. Public sites have been the centre of media attention, often grabbing headlines as owners and operators fight with industry representatives and state legal apparatuses over whether or not they are responsible for infringing copyright. Private sites, by contrast, are highly secretive and elitist spaces that restrict membership only to those with significant technical acumen and a demonstrated commitment to the idea of sharing media, and not just downloading it. As secretive spaces, private sites are thus relatively unknown to many filesharers and are less well-known among average Internet users.

One of the primary contributions made by this thesis is in the ethnographic and descriptive chapters that make up the first section. I argue that such description is important because it helps to demystify what is often a confusing and rarefied realm of online culture. Furthermore, because of the transitory nature of online phenomenon, I argued that a detailed record of what actually transpires at these sites is useful in and of itself: these sites will not be around forever, and thus the details that are offered in this thesis provide a useful starting point for future research. Part of the motivation for offering such a detailed description was to provide the reader with a feel for just how sophisticated BitTorrent filesharing is, especially in the private variant. Private torrent sites are highly complex entities that have been autonomously produced and continually created by the participation of the membership. They are nonetheless spaces that rival

and even exceed the capacities of mainstream legal venues for online media distribution.

This thesis took the view that public and private BitTorrent sites are highly ambivalent phenomena. I argued that assessments that see piracy as inherently liberatory and revolutionary ought to be tempered through an analysis of those features of piracy that support and subvert emancipatory projects. The reality of piracy is that it can simultaneously do both. Public BitTorrent sites are particularly well suited for open and free access to the circulation of digital cultural production online. Because they have few barriers to entry anyone with access to the Internet can theoretically visit the sites and download media. Public sites are thus popular destinations for millions of music, movie, video game, and software fans around the world; they are space through which cultural production travels more or less freed from its commodity status. However, largely because of their openness, public sites are constantly under threat of corruption from various forces. Duplicate, fake, and poor quality files are common on public sites, though users have developed means for warning one another through the use of comments fields which torrents to avoid. Public sites are also vulnerable to attack from malicious software hackers and, crucially, from anti-piracy organisations that have been shown to seed these torrent sites with fake torrents in order to surveil users and frustrate the sharing experience. With regards to piracy's relationship to capital, public sites appear to adopt the same logic of audience commodification that has become crucial to the workings of legal online media distribution industry. They package their users as informational commodities and sell them to advertisers in order to generate revenue to cover site costs and potentially generate profit. For this reason, public BitTorrent sites, though they appear to reject commodification in one way by freeing copyrighted material from its commodity status, nonetheless re-commodify in another way by turning their users into sites of value extraction.

Private sites combat the potential debasement and corruption of the circulation of cultural production online by closing themselves off to general access. In so doing, members are treated to a high quality and usually considerably more diverse catalogue of media. But in order to gain access to this catalogue, potential members must be vetted by site administrators, through interview and applications processes, or by other members, who are instructed to only invite those potential members with whom they have developed trusting relationships. Private site administrators value members who are technically adept and who are committed to ideals of contribution, sharing,

obligation, and reciprocity. This is because one of the defining features of a private BitTorrent site is that members are required to share a certain percentage of what they take through their association with the site. If they do not meet these requirements, they may lose their downloading privileges, or they may be ejected from the site altogether.

The myriad rules and regulations on private sites are enforced through a combination of top-down oversight by administrators and members of special user classes, and through automatic, software-level enforcement of the share ratio, promotions in user class, credit for donations, and so forth. In addition, members themselves engage in a process of continual mutual surveillance in order to flag media that breaks site rules regarding quality and type of media, report members who 'misbehave', and alert administrators about corrupt or illegitimate uploads. Private sites eschew advertising and instead employ sometimes highly convoluted incentive systems in order to extract cash donations from the membership. Though members are often happy to donate what amounts to significantly less than what they may have paid through legal access to media, the reliance on donations to cover operational costs often finds the sites running at a deficit. As a result, in exchange for donations, members are offered 'upload credit', merchandise, as well as immunity from rules. Donations do however sometimes raise suspicion among the membership, who are concerned about the lack of transparency and secrecy with which these sites approach their finances. There have been documented cases in which site administrators have absconded with donations, thus giving good reason for these members to be suspicious.

In order to more fully understand what the specific elements of BitTorrent media piracy mean for anti-capitalist projects, it was useful to approach these sites through perspectives related to the Autonomist Marxist tradition. The autonomist perspective is useful because of the unique ways that it understands the role of technology both as a means for capitalist domination and for worker emancipation. One of the key insights of Autonomist Marxism is to note changes in the relationship between capital, labour, and the social world. In recent decades, it has been observed that labour has begun to take on the contours of immateriality, meaning that more and more, a great deal of surplus value generating activity take the form of the production of knowledge, ideas, codes, affects, and so forth. The category of 'immaterial labour' is thus seen as an emergent hegemonic form of labour that sees capital expanding beyond waged labour in the industrial factory to encompass more and more aspects of daily life. In the 'social factory' every human capacity can represent, to capital, a site for the extraction of

surplus value.

From this perspective, I took up changes in legal online music distribution, which has in recent years shifted focus away from the digital music commodity as the primary site of value, and begun to focus more on the ways in which activities of audiences themselves can be monetised. This shift corresponds with the emergence of a fully realised 'Celestial Jukebox'. This jukebox is the dream scenario for the capitalist media industries and it is one in which audiences occupy a central place as value bearing commodities. Users of the Celestial Jukebox become informational commodities with their listening habits and preferences tracked in order to craft detailed demographic profiles that can be analysed and packaged for sale to advertisers. Additionally, through subscription services, listeners are folded into contractual relationships with music. As commodified audiences, the subjects of the Celestial Jukebox perform a type of labour that is part of the much wider social and economic shift toward 'immaterial labour', since they voluntarily participate in creating themselves as commodities.

Public BitTorrent sites, much like the legal venues of the celestial jukebox, commodify their audiences as they seek to earn revenue from advertising. Even though many of these sites are not profitable, they do reinscribe and thus naturalise the logic of audience commodification. So, though they may appear revolutionary in their refusal to engage with commodification via intellectual property, they end up reinforcing commodification by potentially valorising their audiences as surplus value. Private sites, in contrast, refuse to engage with either type of commodification. For Autonomists, since labour and capital are mutually constitutive, workers possess a great deal of power to escape capital's domination. The refusal of work has long been held as important for resisting capitalist valorisation. Therefore, I argued that private BitTorrent filesharing mounted a type of refusal of immaterial labour. Instead of private site members being valorised as surplus value, they find themselves valorised in the increased utility of the sites themselves. The more 'work' private site members do, the more diverse and accessible the catalogue of media becomes. However, these sites are only able to do so by reinforcing another problematic aspect of capital, that of exclusion. Though a refusal is mounted, it is only partial. Yet, this refusal is nonetheless an important step if piracy is to be seen as potentially transformative. The question then becomes: what happens as a result of this refusal and how does it become actualised?

One way of approaching the actualisation of the refusal of immaterial labour is

to think about piracy's relationship to theories of 'the common'. I therefore analysed how, as experimental 'institutions of the common', public and private sites simultaneously support and subvert the generation of what Cesare Casarino calls 'surplus common'. The Autonomist Marxist tradition sees the common names as encompassing all productive activity and its results. It simultaneously names the knowledges, ideas, codes, affects, and so forth that are at once the preconditions for productive activity and its results. The common is antagonistic toward capital, though capital increasingly relies on expropriating that which has been produced in common. Capital requires the common in order to expand, and as a result cannot control commons-based production directly. Therefore new modes of control emerge out of this relationship. At the same time however, the common always threatens to escape from its subsumption by capital.

According to Hardt and Negri an essential component for conceiving of and actualising exodus from capital is through the concept of institutions. They argue that institutions are crucial for any emancipatory project. I argued that the role of institutions conceived by Hardt and Negri resonated with David Harvey's call for concrete forms of resistance and alternative modes of existence apart from capital. Therefore, I inquired into public and private sites' capacities to act as nascent 'institutions of the common'. In order to assess their potentials in this regard, I adopted a way of thinking about the common from Cesare Casarino and looked to the various ways that public and private piracy supported or subverted various forms of the common. I looked to the common 'for others' as the ways in which these sites facilitated access to a commons of cultural production; I looked to their capacity to create conditions for productive activity that were amenable to the maintaining the common and facilitating access, the 'common-in-itself'. I concluded by looking at the role of subjectivity in the creation and expansion of the 'common-for-itself'. In all three elements, both public and private sites were shown to be highly ambivalent, often making contradictory moves toward capital and toward the common at the same time. I suggested that the ways in which subjects are encouraged to orient themselves toward the common was a crucial point of potential rupture between the common and capital. Whether through a *laissez faire* approach favoured by public sites, or the legislation of obligation and reciprocity characteristic of private sites, pirates themselves were making crucial first steps toward 'being for the common' by participating in these nascent pirate 'institutions of the common'.

To conclude I would like to focus on three interrelated and important facets of

media piracy. First, I offer some reflections on piracy's relationship to thinking about the pragmatic role of copyright and intellectual property activism within capitalist media industries. Second, I look at the implications this thesis has for scholarly research on media piracy. Third, I offer some sense of the ways that I see public and private sites functioning as potentially radical rejections of contemporary capitalist strategies for accumulation and expansion.

PRAGMATICS

As I noted in the introduction to this thesis, over the past decade the economics of media piracy have been discursively linked to the welfare of creators. I suggested that the focus on creators' welfare, from both the industry and progressive copyright-reform sides of the debate, distracts us from other potentially more vital areas of inquiry into the effects of media piracy in contemporary society. Such a critique does not, however, suggest that we ought not to be having such debates. If one takes a pragmatic view of the current climate, it is difficult to avoid the conclusion that the intensification of exploitative practices has continued in the area of cultural production. Within this scenario, it is vital to consider how and in what ways Internet technologies can be deployed in the service of equitable treatment for creators.

Such a conclusion rests, however, on an acceptance of a status quo that sees the suppression of imagining of modes of cultural production and distribution outside of the logic of private property and profit. Instead, it is wagered that incremental adjustments to existing capitalist arrangements—spurred on by activism and appeals to amend existing law—will somehow lead to more equitable treatment for creators and more open access to cultural production for 'consumers'. This reformist position seems hardly feasible. The current climate around copyright and intellectual property policy includes ever greater restrictions on use and the expansion of strategies to enforce such restrictions, and there has been an intensification of sometimes violent suppression of views that critique structures that support capitalist exploitation more generally.

Nonetheless, within this scenario widespread media piracy has had clear benefits with regard to turning popular attention to issues surrounding access to information, the circulation of digital cultural artefacts, the treatment of creators, and the relationship between media consumers and producers. Beginning with peer-to-peer software in the early 2000s, and continuing with public BitTorrent indexes today, the possibility of unfettered, 'no-cost' access to a diversity of digital media is something that has captured

public fascination and prompted attention to the centrality of cultural (re)production within late capitalism. Public BitTorrent sites, as a result of their openness, have been central to this process since they are highly visible antagonists in debates that range from concern for creators' rights, corporate intellectual property litigation, transnational corporate influence, 'fair use' and 'fair dealing' for end-users, Internet surveillance, and so forth. Private sites, in contrast, have done little to engage in the politics of media piracy, and this is largely a result of their secrecy. The most popular public index—The Pirate Bay—with its history of copyright activism and cavalier and antagonistic attitude toward the mainstream media industries, has been crucial in focussing some public awareness on the issues noted above. At the same time public sites' visibility has, to a certain extent, been a contributing factor in furthering the hegemony of copyright and artist welfare as the two primary vectors along which analyses of piracy travel. This hegemony has prevented a greater understanding of how public sites may actually reinforce the commodification audiences at the same time as they challenge commodification of cultural 'products'.

PIRACY AND SCHOLARLY RESEARCH

I have argued throughout this thesis that the study of online media piracy would be enhanced by paying greater attention to the specific activities, organisational styles, and cultural aspects of media piracy. Put another way, as an 'object' of scholarly research, too much attention has been paid to the 'effects' of media piracy and not enough to the processes and organisational styles that have emerged to facilitate media piracy. It is my view that the ramifications of media piracy can only be fully appreciated if research into the phenomenon seeks to destabilise many of its own presuppositions about what is considered important in debates about access to cultural production. Put simply, research that takes up media piracy must move beyond concern over 'who is getting paid' and refocus on efforts to understand the capacities for human inventiveness in the organisation of autonomous means for circulating cultural production outside of the logic of profit. It is here, I suggest, where we will find the more radical potentials of piracy to undermine capitalist social relations. But it is also here where we will find greater ambivalence than is revealed in the more common calculus that sees piracy's challenge only as one related to intellectual property.

In this regard, the assemblage of private BitTorrent sites proves to be a much more complex phenomenon than that of public sites. Public sites, though certainly adept

at shining a light on issues of intellectual property and access to information, are not as rich in terms of their organisational practices and structural elements. Private sites, with their rules, regulations, focus on obligation and reciprocity, and their exclusivity, are spaces in which the organisation and administration of the circulation of cultural production are prioritised over simply liberating information from its commodity status (though they do this too, largely as a result of their complex structures). The implementation of such a complex structure of status seeking, hierarchies, obligations, and technical requirements provides piracy researchers with a rich emergent culture to study and understand. This is not to suggest that public sites are not as interesting as private sites. Rather, public sites, perhaps as a result of their openness, have more in common with other publicly accessible websites in that anyone can experience what they have to offer with little to no self-reflexivity or commitment to the organisational form. Participation in a private site is, beginning with the process of securing membership, one in which members must engage constantly (if not always consciously) in a process of acknowledging, to a certain extent, the broader ramifications of their actions. The mere act of logging in to a private site conjures a process in which engaging in piracy takes on greater weight than does simply clicking a download link on a public site.

RADICALITIES

This thesis has advanced the hypothesis that online media piracy, and specifically BitTorrent media piracy, carries with it emergent radical possibilities for destabilising capitalist social relations. Moreover, I argued that the radicality of these possibilities does not emerge solely from piracy's challenges to traditional modes of understanding intellectual property. Piracy mounts a potentially radical challenge also, if not more so, through the organisational forms that emerge through the autonomous creation of burgeoning institutions that administer the free distribution of cultural production. Exploration of this hypothesis necessitated moving away from dominant perspectives on piracy's relationship to copyright and intellectual property. In order to comprehend piracy's radical potentials a first theoretical move was required: to imagine—to *acknowledge*—that it is actually possible for cultural production to circulate without regard for profit and without resting on the concept of the exchange of private property. Once this move was made, it became clear that focussing on the practices of BitTorrent pirates—as opposed to focussing on piracy's 'effects' in the realm of profit

and remuneration—was of crucial importance.

In shifting the dominant focus in this manner, public and private BitTorrent sites are revealed as complex and multi-layered social, cultural, economic, and technological experiments in new forms of distribution. And as experiments, they are revealed as ambivalent regarding their challenge to the hegemony of capitalist distribution paradigms. In my view, while public sites have contributed a great deal to debates about the feasibility of traditional copyright policy in the digital age, they have also done much to sediment the coordinates of the debate, thus leaving obscured other areas of inquiry. Moreover, with their almost exclusive focus on decommodifying digital music, movies, and software through their removal from traditional exchange relations, public sites themselves have engaged in other forms of commodification that echo those used in the for-profit media industries: public sites commodify audiences. In so doing, publicly accessible forms of media piracy potentially undermine the radicality of their position *vis-à-vis* copyright by shifting the centre of revenue-generating (if not profit-generating) activity from digital ‘objects’ as such to the processes by which those ‘objects’ are procured. This is precisely the same strategy that is employed to great effect in much legal, free online media distribution, social networking, and World Wide Web search. Generating revenues from the sale of music, movies, text, software, or video is becoming secondary to efforts at finding new ways to extract monetary value from the commodification of information about the activities end-users engage in on their way to procuring digital media. Finally, despite public sites’ egalitarian approach to facilitating access to digital cultural production, the lack of significant attention to the technical quality of material shared on these sites potentially debases the collection of digital material that is made available through these sites.

Private BitTorrent sites, though less visible in terms of mainstream debates about copyright and access to knowledge, are engaged in potentially more radical activity as they challenge the logic of private property *and* represent the creative ways in which groups of individuals can collectively manage the distribution of digital media outside of existing legal and commercial infrastructures. In this regard, private sites and their members are well-positioned to signal the rejection of the commodifying practices that characterise both mainstream media distribution and openly accessible pirate sites. In my view, the organisation of piracy around concepts of mutual obligation and reciprocity and strict attention to technical quality signals a much stronger rejection of contemporary modes of capitalist accumulation than can be achieved via participation in

public BitTorrent piracy. This is because by formalising these aspects of media piracy, private sites appear to rival, if not exceed, capital's ability to provide well-curated, diverse, and high quality repositories of digital cultural production, which is something that public sites struggle to achieve.

However, private sites' rejection potentially comes at the expense of openness and accessibility. The exclusivity, competition, and hierarchic organisation of private sites do much to reinscribe similar problematic characteristics of late capitalism. Restrictions to access are a form of artificial scarcity that is put to great use by capital as it pursues policies and technical arrangements that determine who is permitted to access the benefits of contemporary technologies. Within capitalist exchange relations, access comes at a price, and so too does access to private sites. The technical knowledge necessary for membership and the precondition that members have at their disposal access to high-speed network connections are barriers to access that are similar in many ways to the numerous barriers to access that capital puts in place. Where capital erects arbitrary barriers to ensure continued profitability and expansion, private sites erect similar barriers to ensure that they are able to continue to provide high quality catalogues of media that do not suffer the debasement characteristic of media found on public sites. Both systems ultimately rely on exclusion as a primary strategy for pursuing their end goals. It is the richness of the ambivalence of private BitTorrent sites that makes them vital to understanding the ways in which contemporary network technologies can be put to emancipatory uses.

I began this thesis by noting that copyright has been the dominant framework for engaging with the relationship between piracy and capital. The original contribution of the ethnographic research that opened this thesis in combination with a novel theoretical approach drawn from Autonomist Marxism has the potential to shift thinking about piracy in a potentially more radical direction than that offered by the focus on copyright and intellectual property. This is because thinking about the various ways that piracy resists and at times reinforces capital reveals much about the mutually constitutive relationship between Internet technologies and contemporary capitalism. Moreover, viewing piracy from the perspective of the common demonstrates that these are experimental practices in creating spaces for autonomous valorisation of human creative capacities beyond those that can be captured by capital. Through the experimental and ambivalent practices of media pirates, we see the enacting of refusals the nascent opening of thought and action toward the common and away from private accumulation.

Understanding these phenomena in greater detail and specificity can create the conditions under which they can become radical negations of ownership and property. The ambivalences of piracy can help us understand a great deal about the role that digital media technologies can and will play in the project of emancipation from capital.

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