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Copyright wars and learning objects

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Learning object developers need to understand that presently there are powerful organizations of "intellectual property" owners, and vendors of music, videos, books and software that are making a concerted attack on copyright, attempting to convert it from a law to promote knowledge and the useful arts into a mechanism to protect and serve their special interests. This paper represents an attempt to overturn the misconception that copyright is simply about protecting the rights of authors and re-introduce an understanding of the original foundational role of copyright in "promoting science and the useful arts" and inform U.S. and international readers of the concerted assault on our "fair use" copy rights as educators in the digital environment. The paper argues for the need to put an end to the "quasi-copyright" laws that have severely curtailed the traditional rights of educational institutions and passed on responsibilities that previously were the purview of the copyright owners. It calls for a restoration of the balance returning copyright to its original educational focus.

Keywords: copyright, education, internet, intellectual property, learning objects

1. INTRODUCTION

One of the most serious threats to the development of the learning object economy as described by Downes (2002) is the consistent campaign by the controllers of copyright to undermine, and render inoperable, the public domain. The learning object economy is the system of learning object repositories, distribution systems and rights' management that is currently being developed by a wide variety of different learning institutions and organizations. Learning object (LO) developers need to understand that presently there are powerful organizations of "intellectual property" owners, and vendors of music, videos, books and software that are making a concerted attack on copyright, attempting to convert it from a law to promote knowledge and the useful arts into a mechanism to protect and serve their special interests. In this paper, the term "copyright controllers" refers to both the owners and vendors, including the "big players" such as Disney, Bertelsmann, and Time/Warner/AOL and their organizations that together control much of the world's content (Barlow, 2002). They want to control "in infinite detail all use and duplication of material, monitor that use, and possibly charge for it on a transactional basis if they don't block it out of hand" (Lynch, 2001, p. 29).

Bollier (2003) recognizes three ways in which the copyright controllers are accomplishing their goals. The first is through the use of proprietary standards. The second is building "walled gardens". And, the third is through the privatization of

internet governance. Companies often demand royalties for the use of their proprietary standard. They sometimes allow free use because there is "lock-in", whereby the standard becomes so common that people become obliged to use their products. This impedes the development of the learning object economy, which depends on common standards for interoperability of software applications among different vendors.

A walled garden (otherwise known as "walled prison" or "captive portal") on the internet is a web site or collection of closed web sites that manages the user's access to the content, directing them to specific content and/or preventing them from accessing selected material (SearchSecurity.com, 2004). Walled gardens are often found on sites aimed at children to prevent them from accessing inappropriate content. Companies use them to direct surfers to specific sites for sales purposes or simply to keep them away from competitors, while offering them the illusion of online choice. America Online (AOL) is considered to be one of the most successful walled gardens. It is known that 85% of AOL users never leave the walled garden and visit other areas of the internet (SearchSecurity.com, 2004).

Nielsen (1999) refers to these trends as "Metcalfe's Law in Reverse" – Metcalfe's law states that the usefulness of a network increases by the square of the number of users (Boyd, 2004)), that is if you have one fax machine it is useless, with two you have created a use, with thousands it is very useful and with millions, it becomes indispensable. Nielsen claims that the attempts of companies like AOL to split the Web into many isolated mini-networks, undermines the long-term usefulness of the internet, which depends on universal interconnection. It thus lowers the profit potential of the companies that embrace the walled garden approach. He argues that collections of closed networks would be significantly smaller than a large interoperable open one and that 20% of an open network would be far more valuable than 20% or even 90% of a series of closed networks. But, this does not stop the controllers.

Examples of companies attempting to close off the commons include:

- *Universal Studios* fighting movie websites that want to link to film trailers on *Universal*'s site (Cisneros, 1999); and
- *Ticketmaster*'s attempts to stop Sidewalk from bringing potential ticket-buyers to the *Ticketmaster* page that sold tickets to the events announced on the *Sidewalk* website (Macavinta, 1997).

According to Surowiecki (2002), the copyright controllers are guilty of "property-rights fundamentalism" – copyright as a mechanism for the protection of "property". By calling their intellectual creations "property" the copyright controllers have to "plant in the public mind the idea that cultural products (movies, recorded music, books) are 'property' in the same sense that your house and its contents constitute property" (Naughton, 2003). Bollier (2003) claims that the controllers are campaigning to "morph copyright into a content protection system" (p. 121).

However, copyright has never been a property right. Copyright was explicitly instituted in British common law in the Statute of Queen Anne 1710 as *An Act for the Encouragement of Learning* (House of Commons, 1709). This law, by limiting the copyright term to 28 years, in effect, created the public domain – the intellectual commons. This is the most important aspect of this law, both for the public and for developers of learning objects. It created a body of works that could be copied, altered, adapted, or tweaked by anyone for amusement, profit or enlightenment, but especially for learning. The principles embodied in this act were taken up by several of the American colonies and copyright became inscribed as a clause in the US Constitution (1787) "to promote the progress of science and the useful arts".

So, copyright was not enacted for the purpose of protecting the rights of the author. Jaszi (2001) argues that this view of copyright is really "para-copyright" or "pseudo-copyright." Barlow (1996) argues that old laws like copyright cannot be made to work by "grotesque expansion or by force" (p. 10). In much of Europe, countries base their legal systems on the Napoleonic code which centres copyright laws on "le droit d'auteur" (author's right), but this is alien to the common law tradition on which both British and American laws are based.

Copyright holders possess a simple "copy" right that gives them an exclusive right to exclude others and otherwise control the expression of their ideas for a limited time. Bloom (2002) complained that whoever turned "copy right" into one word had to be a lawyer. One does not say "freespeechright" or "gunright" or "assemblyright" or "religionright."

Bell (2002) writes that the copyright owners have "co-opted the rhetoric of property" (p. 8). The term "intellectual property" was seldom used prior to its popularization following the establishment of the World Intellectual Property Organization (WIPO) by the United Nations in 1968 (United Nations, n.d.). Since then, owners of copyright on creative

works have conducted a constant campaign, with some significant success, to transform copyright into a property right. They are extending the property label for intangible things like texts, songs, movies, plays, software and yes, learning objects.

2. BACKGROUND

The *Copyright Act 1790: An Act for the Encouragement of Learning* was signed by George Washington (Columbian Centinel, 1790). Thomas Jefferson expressly opposed linking copy rights to property rights, noting "Inventions then cannot, in nature, be a subject of property." He reluctantly agreed to the granting of a copyright monopoly on a limited basis only insofar as it encouraged learning (Jefferson, 1813). In the same vein, President James Madison wrote that "incentive not property or natural law is the foundational justification for American copyright" (as cited in Vaidhyanathan, 2001, p. 43). So, there is no common law support for creative works as property. It is a privileged monopoly not a right.

Since these laws were first enacted, the copyright controllers have waged a continuous war aiming to extend their rights at the expense of education and the general public. Barlow (1996, p. 15) warned "The greatest constraint on your future liberties may come not from government but from corporate legal departments laboring to protect by force what can no longer be protected by practical efficiency or general social consent".

No one "owns" an intellectual work. The so-called owners possess only the copy right for the creation. Stealing and theft as confirmed by both the Oxford (Oxford University Press, 1989) and Merriam Webster (Merriam-Webster, 2004) dictionaries involve taking something "away" as well as the taking of "property" belonging to another. Since, nothing is taken away (the owner still has it) and there is no property, it cannot be stealing. As confirmed by the U.S. Supreme Court, the correct word to describe the act of illegal copying is "infringement" not "stealing". (*Dowling v. United States 473 U.S. 207*, 1985)) .

You can judge for yourself the morality of the copyright controllers as they are now including elementary schools in their para-copyright crusade, circulating their views on copyright to children. Whenever they mention copyright and young people together, they are calling them all thieves or "they are making claims for copyright that far exceed what copyright is all about" as Rick Weingarten of the American Library Association is at pains to point out, noting "The idea that elementary-school kids are ripping off business software is a little strange" (Dean, 2004). The controllers, however are trying to ensure that their views on para-copyright become accepted at an early age, before they start questioning/reasoning as adults.

Gary Shapiro (cited in Borland 2002) stated: The copyright controllers have "declared war on technology, using lawsuits, legislatures and clever public relations to restrict the ability to sell and use new technologies." Even homeland security is trumped by copyright protections and the $40 billion entertainment industry is imposing its views on the $500 billion technology industry. Forno (2002) calls this assault a case of the "mouse trying to own the elephant herd." Nadin (1997) noted that governments are quick to give up ideals like human rights, but they "raise a big fuss when it comes to copyright infringement" (p.36).

3. ACT, BILLS AND MICKEY MOUSE

A multiplicity of bills re-inforcing the intellectual property interpretation of copyright have been introduced in the US Congress since 1997. Chartrand (2000) lists 40 copyright enforcement bills introduced into the U.S. Congress and at least seven of them have since passed. Billboard.biz (2004) lists an additional 10 such bills. Some of these are described below.

In the (No Electronic Theft (NET) Act, 1997), the U.S. Congress has made it a federal criminal offense to share copies of copyrighted products even with family members. An extension to this act, the (Artists' Rights and Theft Protection Act (ART), 2003) extends the criminalization to videotaping movies including the possession of prerelease movies with no actual distribution necessary. With the Sony Bono Copyright Term Extension Act (1998), all creative works published between 1923 and 1943 have been prevented from entering the public domain. This is a theft from researchers and educators and particularly from those of us interested in creating learning objects. This act was introduced by the pop singer/congressman, Sonny Bono and strongly supported by Disney to prevent its content from entering the public domain. Some people call it the "Mickey Mouse" Preservation Act (Black, 2002; Levy, 2002) because every time Mickey is due to enter the public domain, copyright is extended.

Bloom (2002) writes that the big media companies such as Disney and AOL/Time-Warner,

holding the copyrights of dead authors, have said, in effect, that the American founding fathers were wrong and that society should "go back to the aristocratic system of hereditary ownership, granting copyrights in perpetuity". There is no guarantee that there will not be a further extension of the Mickey Mouse act after this 20 year period has ended. Congresswoman Bono even supported a term limit (originally proposed by Jack Valenti former head of the Motion Picture Association of America) of "forever less a day" as a reasonable interpretation of "a limited time" (U.S. Congress, 1998). In practice all copyright expirations are now effectively suspended. More than 400,000 American books, movies, audio recordings and other creative works have been prevented from entering the public domain for at least twenty years and possibly forever (less a day).

Jaszi (2001) emphasizes that the real concern is not about Mickey Mouse entering the public domain, but all the other content such as classical music, little-known films, books, etc. that get incidentally restricted in order to protect a few valuable, perennial works. The copyright controllers are very concerned that huge quantities of free high quality materials not become available to compete with their commercial products. This is the real threat facing the content industry, not piracy (Downes, 2003). Vaknin (2004) estimates that there are more than one million books published between 1924 and 1964 in the USA that should be in the public domain. For an online listing of many of the high quality works that are being prevented from entering the public domain see Karjala, (2003). Duke Law professor James Boyle claims these copyright extensions have "locked up all of 20th century culture ... to save maybe five percent" (cited in Morgan, 2003).

Guinan Jr. (1994) conducted a study of the original registrations of copyright for the U.S. Copyright Office during the period (pre-1978) when copyrights had to be renewed after 27 years. At that point, they would expire unless the copyright owner notified the copyright office. Of 189 864 original registrations in 1927, .only 17, 304 copyright works were renewed (9.5%). Of those renewed, 45% were for music, and 43.7% for 'motion picture photoplays'. Only 1% of the total number of renewals were textual works. So, 99% of textual content would be expected to become available on the public domain.

As if the Sonny Bono Act were not enough, the big content and software industries joined forces to support the introduction and successful passage of the Digital Millennium Copyright (DMCA) Act (1998). The DMCA makes it illegal (and even criminal) to circumvent protection mechanisms on software. This includes even the sharing of information on how to circumvent protection. Copyright controllers are determined to assert and extend their control.

Researchers claim that the DMCA hinders their ability to study security flaws in computer software and it discourages educational content developers from excerpting passages for inclusion in learning objects. The Electronic Frontier Foundation (2003) claims that the DMCA "chills free expression and scientific research" and jeopardises "fair use" by making it impossible for consumers to make a copy for their own use. They claim that the DMCA impedes competition and protects monopolies by allowing companies to exert undue control after the sale of their product. This control borders on the insane when consumers have every right to copy their purchases, but are prohibited by law from taking the steps necessary to do so.

Librarians have their own problems with the DMCA. Bricklin (2002) claims that copy protection could "break the chain necessary to preserve creative works." He argues that because of the DMCA "To create a 'Rosetta Stone' of today's new formats will be asking to go to jail and having your work banned." Copy-protected content and applications are less likely to survive for posterity.

Lynch (2001) believes that the DMCA represents a massive change in the balance of control over content. Along with other attempts at control by the big copyright controllers, it is causing enormous difficulties for the creation of learning objects and the development of electronic books or e-books. Many of the advanced features of ebooks have been removed in order to prevent copying. These regressive measures include technical features that limit the downloading of content to the proprietor's site, suppressing the copy and paste feature, as well as charging excessive prices making e-book purchases less attractive than paper copies. Other controls include publishers withdrawing legitimately purchased subscriptions without notifying the subscribers. There is also significant concern about the copyright controllers' growing ability to track customers, ostensibly to catch "thieves", but also to detect usage patterns for profit. This spying could become pervasive in the future as many new licenses limit the uses of the applications.

In addition, consumers are not being advised properly by the copyright controllers on which type of copy protection is being used and which devices or applications can be used to play music or

video files. The Digital Media Consumers' Rights Act (2003) has been introduced into the U.S. Congress in order to prevent this type of misleading advertising by the vendors.

4. WHO'S STEALING FROM WHOM?

Self (2004) casts doubt on the reported losses due to pirating that companies quote. He provides an economic analysis showing that the figures they use on the billions of dollars lost are manufactured and highly suspicious. He questions their methodologies, which in any case they seldom provide. He also wonders if Microsoft would really prefer a million installed copies of Linux rather than a million installed pirate copies of Windows. There is also a strong argument that pirating has bolstered the profits of many companies. For example MS DOS became an accepted standard because it was copied by everyone with a PC. This helped to establish Microsoft as the leading software company (Anonymous Coward, 2004).

On the other hand, how much extra money have copyright controllers made from consumers paying full price for music and movies in a new format when they had already paid full price only a few years before? For example, many people have bought the phonograph record, the tape, the 8track, the CD and now the DVD of the same song. Card (2003) wrote "Strip away all the pretension, and what you really have is this: Rapacious companies that have become bloated on windfall profits and ruthless exploitation of other people's talents are now terrified that the gravy train will go away."

Ironically, the present day copyright controllers owe their very existence to "piracy". Lessig (2004) writes that the Hollywood film industry only exists on the west coast because the copyright and patent controls enforced by Edison and others were unduly restrictive forcing independents to flee in order to make movies. The recording industry began by recording songs without permission as did radio and as did the cable industry for television programming.

Content companies crying about the loss of their profits to digital pirates should examine their own history. They tried to stop radio from playing their songs, not realizing that it would be the biggest promoter for record sales. Movie companies attempted to limit the showing of movies on television and TV. Yet, it became a huge aftermarket for their used products extending their life. Card (2003) noted that although B movies and newsreels suffered, the aftermarket for the top hits became very lucrative. The VCR terrified studios and TV executives. At the time of its introduction, the MPAAs Valenti, (1983) commented "the VCR is to the American film producer and the American public as the Boston strangler is to the woman home alone". Yet, the VCR has proved immensely profitable, once the content controllers came to terms with rentals and reduced their pricing to sustainable levels. Now with DVDs, the aftermarket is often more profitable than the original cinema showing. The only movie theatres to (almost) disappear because of the new technologies are the pornography theatres. They never learn. To protect their copyright, the Recoding Industry Association of America (RIAA) is now pushing for onerous restrictions to limit the capabilities of digital radio (Reuters, 2004).

Card (2003) argues that the big content companies' protestations that they are protecting the rights of their artists are sham. They have been manipulating copyright laws for years, stealing everything they could from the authors and artists who created the content. Movie studios use "creative accounting" to minimize their profits, thus avoiding taxes and depriving the creators of their proper percentage. He refers to these companies as profiteers and bloodsuckers. Former Grateful Dead lyricist, John Perry Barlow (2002) estimates that nearly 90% of musicians with major label contracts cannot pay up the money advanced to them. They want to be heard so much that they are willing to sell their souls to the big record companies. Albini (1998) gives an informative account of how record companies rip off rock band artists. Avalon (2003) reported that the major recording companies were caught stealing $100m a year from their artists and were severely chastised for doing so by a US federal court judge.

In another action, authors had to file suit with the US Supreme Court to assert their rights to proceeds from the subsequent sales of their works to database services (*New York Times Co. Inc. et al v. Tasini et al. certiori to the United States Court of Appeals for the Second Circuit No. 00–201*, 2001). More recently, record companies, who normally pay artists from 6 to 8 cents per song, are refusing to pay artists anything more for their "double session" CDs that release the songs in multiple formats. This dispute is being negotiated (Borland, 2004).

A rather contemptible example of the usurpation of an artists right by the big companies is that of Disney and other recording companies, who took over the rights to the hit song "The Lion Sleeps Tonight" otherwise known as "Whinawei" or originally "Mbuba". The original South African

song writer, Soloman Linda died a pauper, although the estimated value of his song is US$15 million (3rd Ear Music, n.d.; Isa, 2004).

U.S. record companies even attempted to furtively insert a clause preventing copyright from reverting to the authors, into the Satellite Home Viewer Improvement Act of 1999, which was unrelated legislation and so unknown to the artists. They attempted to add four words – "as a sound recording" – deep within it. This would have made all recording artists' creations "works-for-hire" and thus the property of the record companies even after the 35 year expiration date when copyright normally reverts to the artist. Fortunately, Congress decided to remove this clause after intense negotiations with artists' representatives (King, 2002).

The Secure Digital Movie Initiative (SDMI) aims to restrict the use of ALL video productions to a specific device that's authorized to play it. No common agreement on a specification could be reached and it is now in hiatus (SDMI, n.d.). However, the Consumer Broadband and Digital Television Promotion Act (2002) has been introduced in Congress. This act would prohibit breaking the protection code on electronic devices and forbid the interstate transportation of any device unless it includes and uses standard security technologies. Consumers who attempt to act on their first use or fair use rights by bypassing these content controller protection schemes will be in contravention of this act and subject to prosecution. Furthermore, as in the DMCA, they will be criminals if they actually tell their friends about it.

These acts put a damper on research activities as Princeton University professor Edward Felten discovered. He had to sue for the right to present a scholarly paper describing the process for breaking a copyright-protection technology. The RIAA backed down, but the entire process was threatening and time consuming, serving as a deterrent to other researchers, with similar interests (Craver *et al.*, 2001).

5. WAR WITH CONSUMERS

The big content companies are also at war with consumers. The RIAA has prosecuted thousands of file sharers, from an 11 year old girl (NY Post.com, 2003) to a grandmother (BBC, 2003). DirecTV is suing thousands of people who may or may not be downloading its movies. Whereas, the RIAA is "fishing" for infringers by casting a wide net, DirecTV has been focusing on prosecuting Smart card users in the largest legal action in US history with more than 150 000 defendants. A spokesman for DirecTV stated "We're looking to put a chill on the market" by prosecuting many people who do not even own satellite systems. Although there are many legal uses of Smart Cards, DirecTV is continuing to prosecute because the cards CAN be used for pirating, not necessarily because people DO use them to pirate (Platoni, 2004).

In addition to their prosecutions, the owners have also developed the concept of "contributory infringement" as a way of downloading the responsibility of enforcing copyright to Internet Service Providers (ISPs), TelCos (RIAA, 2003), universities (Carlson, 2003a; Sherwin, 2003), and others (Jardin, 2004). Zittrain (2002) refers to this as the compulsory "deputizing" of network providers as content police.

The Technology Education and Copyright Harmonization (TEACH) Act of 2001 (2002) supports this transfer of responsibility to educational institutions. This Act re-grants rights that universities and other educational institutions have always traditionally held. In order to benefit from the provisions of this Act, and enjoy the rights of fair use that they have always had, educational institutions must now ensure that they implement a comprehensive copyright policy. They must then take responsibility for educating faculty and students on the copyright controllers' interpretation of copyright and apply special technological restrictions limiting access to copyrighted works. More burdensome for institutions, they must take on the responsibility of enforcing the copyright interests of the copyright controllers (Craver *et al.*, 2001). Interestingly, Jardin (2004) reveals that the bill's sponsors, Senators Leahy and Hatch, are both recipients of major funding from the entertainment industry.

Gregory A. Jackson, CIO at the University of Chicago commented "Fundamentally, these shouldn't be higher-education issues. I'm worried that we are heading down a path that will wildly complicate our lives, all to preserve something that is essentially archaic – the record companies' existing business model of selling CD's and tapes" (Carlson, 2003b). If the entertainment industry has a problem with their copyright, they should handle it themselves and not transfer the responsibility and costs of enforcement onto public institutions and the taxpayers.

These enforcement activities include extrajudicial methods of surveillance that secretly detect, deter, and control acts of consumer infringement.

Thus they represent a significant invasion of privacy. Universities are now expected (although not yet obliged by law) to participate with copyright controllers in the surveillance of faculty and students, becoming police and judges and adversely affecting traditional academic freedoms.

Other problems recorded by the Electronic Frontier Foundation include the presumption of guilt and targeting of innocent people (including a child's essay on Harry Potter!). But, the principal problem with participating in enforcement activities is that it takes resources away from the institution that should be used for education. Why should universities accept the downloading of responsibility for enforcement from the copyright controllers? "Instead of permitting themselves to be drawn down the track of greater and greater surveillance, universities should stand up early and assert their rights to set their own educational priorities" (Electronic Frontier Foundation, n.d.).

Katyal (2004) writes that faculty and students will be inclined to opt for risk-averse behaviors when subjected to surveillance in order to forestall discomforting inquiries by the copyright police. Already, there is a tendency for learning object developers to steer clear of references to proprietary content and avoid using language that might be considered to be under copyright protection. She notes "The eventual result would be a gradual chilling of creative behavior; the constant, silent, assertion of surveillance for infringement might eventually deter you from speaking at all." IP rights are quietly dominating the privacy and creative rights of educators and other citizens. Surveillance encourages the "overdeterrence of speech and the evisceration of fair use". She argues that the surveillance activities of the big content companies are "incompletely theorized, technologically unbounded, and, potentially, legally unrestrained."

The Protecting Intellectual Rights Against Theft and Expropriation (PIRATE) Act (2004) is another bill that has been introduced into the US Congress to pass the responsibility for copyright enforcement from the owners to the civil authorities. This Act would criminalize file sharing with a maximum 10 years in prison penalty. As in the TEACH Act, the bill's sponsors are the entertainment industry's Senators Leahy and Hatch. If this Act is passed, it will benefit the content owners immensely, transferring the costs of enforcing copyright from them to the taxpayers.

The big owners are also supporting legislation compelling companies to incorporate special purpose hardware in all general purpose computer systems. The Security Systems Standards and Certification Act (2001) was introduced into the US Congress for this purpose. The copyright controllers wish to use this law to implement technologies for controlling and monitoring consumers after the sale. The entertainment industry's Hatch is again the principal proponent of this bill. He even suggested that the content companies should destroy the computers of file sharers by seeding the internet with computer-destroying viruses. He is on the Senate Judiciary Committee, yet he proposes punishing people without due process for suspected offenses against copyright (Bridis, 2003).

In yet another bill introduced into Congress, the Inducing Infringement of Copyrights ("Induce") Act, 2004), anyone who "intentionally induces any violation" of copyright law is acting illegally. This covers any software or hardware that could possibly be used for illegal activities, whether or not it has any other legal uses. This act would, in effect, ban peer-to-peer file sharing networks on the internet and inhibit the development of software and hardware that supports all kinds of legal file sharing (McCullagh, 2004a). File sharing is the principal means by which learning objects are being and will be exchanged and reused.

In supporting this "Induce" Bill, the entertainment industy's Senator Hatch moralized "It is illegal and immoral to induce or encourage children to commit crimes ... Some think they can legally lure children into breaking the law with false promises of 'free music'"(Cohen, 2004). Ironically, Senator Hatch introduced legislation in 2000 to ban "frivolous and burdensome lawsuits against law-abiding firearm manufacturers, dealers and owners," (CNN, 2000). Cohen points out the irony of Senator Hatch supporting legislation to punish technology for crimes committed by people. After all, if it is true that 'guns don't kill people, people do'; then surely 'technology doesn't pirate content, people do.'

The "Induce" Bill is a real threat to the development of new technologies. As a result, software companies have banded together to support the Discouraging Online Networked Trafficking Inducement Act (2004). Otherwise know as the "DON'T Induce" Act, it aims to protect computer software and hardware developers from undue prosecutions by limiting the liability to distributors of computer programs 'specifically designed' for widescale piracy" (Schwartz, 2004). The U.S. Copyright Office has tabled a discussion draft with similar limitations that appears to be a compromise between the two proposals, but it remains objectionable to software company representatives because the act would be regulatory and give

content providers a veto power over all new technology (McCullaghb, 2004).

The Piracy Deterrence and Education Act (2004) facilitates the sharing among law enforcement agencies, In this act, ISPs must provide copyright owners any information concerning acts of copyright infringement. It also includes $15 million of taxpayers' money for "copyright" education. This Act also aims to make the unauthorized use of a video camera in a movie theater to transmit or make a copy of a copyrighted work into an imprisonable offense. Significantly, since this places the crime under Title 18 and not under Title 17 (copyright law), fair use protections guaranteed under copyright law for educational uses would not apply. For example, a film critic, religious scholar, professor or student could attend a movie showing to video record key segments of a movie for inclusion in a learning object. This would be a legitimate exercising of fair use rights under copyright law, so this act would likely be allowed. But, it would be a crime under this section.

At the state level, the Uniform Computer Information Transactions (UCITA) Act of 2003 is being proposed as a model bill for different states by the National Conference of Commissioners on Uniform State Laws (Association of Research Libraries, 2003). This model legislation proposes the licensing of information in its many forms and away from the sale of copies as traditionally understood under copyright law. It aims to replace the public law of copyright with the private law of contracts. It places more restrictions on traditional fair use and prevents libraries from lending any electronic materials. It has been enacted in Maryland and Virginia (Johnson, 2003).

The UCTA proposes licensing in preference to selling in order to vest more control with the copyright controllers who can then determine how the "licensees" (not purchasers) use their product. This allows the licensors to bypass consumer rights like the right of first sale and fair use and negatively affect education, scientific research, and culture. Reichman (cited in Bollier, 2003) refers to this trend for more control by big companies as the "medievalization" of the system of innovation, where a tribute must be paid at every toll gate.

6. INTERNATIONAL

The United States is not containing its legislative reach within its borders, but is actively pressuring other governments to adopt its line on protecting IP. It is doing so by forcing other countries to toe the line. Australia was forced to accept the U. S. approach to IP protection in their free trade agreement with the U.S., reinforcing "Australia's reputation as one of the world's leading countries in protecting and enforcing intellectual property rights" (Australian Government Department of Foreign Affairs and Trade, 2004). The Australian journalist, Gittins (2004) warned about this U.S. push for "harmonisation" forcing other countries to copy U.S. laws, and then "act as policemen in prosecuting citizens who pirate American intellectual property, enhancing the ability of US companies to protect their rights in other countries' courts."

The U.S. has placed 49 countries on its "priority watch list" and designated some of them for "Section 306" in which the U.S. can move directly to the application of trade sanctions, whenever a country is not adequately enforcing intellectual property rights (U.S. Department of State, 2004). It is because of this worldwide assault of the copyright controllers that other countries of necessity must be concerned with the copyright developments in the U.S. The content companies are so powerful that laws asserting their interests were among the very first passed by the new Iraqi government (Associated Press, 2004). Defending US IP in Iraq is "a high priority" (U.S. Department of Commerce, 2004).

This act is being replicated (somewhat) in Canada with the Lucie Maude Montgomery Extension Act or an inclusion in Bill C-36 (House of Commons Canada, 2004). (Montgomery was the author of Anne of Green Gables.) The chief difference from the US law is that all the authors who benefit from the Canadian version of the law are dead (Anonymous, 2004).

The European Union is getting on the quasi copyright bandwagon with its Directive for the Enforcement of Intellectual Property Rights. It has been called the "nuclear weapon of IP law enforcement". Now copyright controllers have the right to raid homes of suspected infringers using Mareva Injunctions or Anton Pillar Orders that permit authorities wide latitude in search and seizure (Rupley, 2004). This directive combined with the injunctions goes far beyond the DMCA (it includes patents) and it includes all minor, unintentional, and non-commercial infringements of intellectual property (European Union, 2003).

7. THE COUNTER ATTACK

Among these 'balancing' initiatives is the Public Domain Enhancement Act (2003), which has been

introduced into the U.S. Congress. This act proposes to add a nominal fee of $1.00 after 50 years for those who wish to renew copyright. This would have the effect of opening up the way for millions of abandoned works with no commercial value to enter the public domain, with the bonus of providing a database of those who register so that people looking for the copyright owners would be able to find them without undue difficulty. This would be a boon for content creators wishing to put learning objects out on the Web.

Another proposed bill attempting to restore the balance in copyright laws is the appropriately named BALANCE Act (Benefit Authors without Limiting Advancement or Net Consumer Expectations Act, 2003) that represents an attempt to restore fair use rights that have been severely curtailed by the DMCA. The introduction into Congress of the Digital Media Consumers' Rights Act (2002) was a minimalist effort to at least ensure that the copyright controllers do not mislabel copy-protected music discs as an unfair method of competition or as a deceptive act or practice.

Project Gutenberg (2005) is "the internet's oldest producer of free electronic books (eBooks or eTexts)." Hundreds of volunteers share the vision of creating digital books and making them freely accessible online. By February 14, 2005 there were more than 13 000 ebooks available. Following in this direction, the Public Library of Science (PLoS), a non-profit organization of scientists and physicians, is launching a public campaign aimed at making the world's scientific and medical literature a public resource (Vanderzee, 2003).

Congressman Sabo, noting that more than $50 billion dollars is invested by US taxpayers each year in scientific and medical research, has introduced into Congress a bill, the Public Access to Science Act The 'Sabo bill' would make all research funded by the US government exempt from copyright protection as are other federal documents (Suber, 2003). This bill enjoys wide support from researchers, including at least 25 American Nobel Prize winners (SPARC-OA Forum, 2004).

In fact, many research documents are presently available on line, but exist in a 'walled garden' accessible to the privileged few who work for organizations that pay rather exorbitant fees to private companies. The taxpayers have paid for the creation of these documents and then must pay heftily again to access them. Trosow (2003) refers to this as a 'double subsidy'.

The Creative Commons license represents another attempt to restore balance to copyright. Compromise, and moderation, the founders claim, were once the driving forces of a copyright system that valued innovation and protection equally. Their principal goal is "to build a layer of reasonable, flexible copyright in the face of increasingly restrictive default rules" (Creative Commons, 2004). For this, they have released a set of model copyright licenses that are free of charge for public use.

8. CONCLUSION AND FUTURE WORK

This paper represents an attempt to inform U.S. and international educators, and particularly learning object developers of the concerted assault on our "fair use" copy rights as educators in the digital environment. There is a need to put an end to the "quasi-copyright" laws that have severely curtailed the traditional rights of educational institutes and passed on responsibilities, that previously were the purview of the copyright owners. The balance must be restored, returning copyright to its foundational role of "promoting science and the useful arts". The original copyright laws were based on a compromise allowing creators limited temporal rights and establishing the public domain along with the inherent right of "fair use" for educators and other researchers.

Now, educational institutions are being forced to accept the burden of preventing "vicarious" or "contributory" infringements within their institutions in order to enjoy the very rights that copyright law was first introduced to protect. These quasi-copyright laws have become a particularly onerous burden for learning object developers who have the enormous task of searching out lost authors and their relatives in order to make use of materials in their research and teaching activities.

The public domain originated as a direct result of the copyright statutes. The growth of publicly available online content is important for learning object developers. The future growth of the learning object economy is profoundly tied-up with the growth of the public domain. These copyright wars are important for the preservation of our traditional rights to "fair use" or "fair dealing". Educational institutions cannot afford to pay the exorbitant fees demanded by the owners of the "walled gardens". They need to support initiatives like the Open Courseware Initiative, the Open Knowledge Initiative, and Project Gutenberg, as well as the attempts to open up all publicly funded research for use by the public (Massachussetts Institute of Technology, 2005; Open Knowledge Initiative, 2005; Project Gutenberg, 2005).

Future work Future research into contemporary developments in copyright needs to examine ways that the traditional balance that supported educational uses of copyrighted materials is assured. This is essential if the objectives of the information society are to be met. Educators, students and researchers need the flexibility of using digital resources for legitimate educational and research purposes without being unduly restricted by protection laws and applications. This is essential for ensuring that new knowledge and cultural artifacts are effectively disseminated in a timely fashion to the public.

To achieve this, educational uses need to be expanded and not limited and continue to be considered integral to the copyright framework, not "exceptional" as many are now contending. Copyright must remain a privileged monopoly, tolerated only insofar as it encourages learning and scholarly research. Otherwise, there is a serious threat to education that will increase social divisions and undermine future research initiatives.

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