Digital Rights Management

Is the DMCA Denying Fair Use?

By Diana Lomont

For Professor Michael J. Clark
Portland State University
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Introduction

Technology is as much a part of most Americans' lives today as eating and breathing. More and more, consumers rely on technology for their everyday entertainment and information, whether it's downloading songs in MP3 format, recording TiVO movies to watch at their convenience, purchasing e-books, or borrowing digital materials from their local library. While the digital age is bringing exciting new possibilities to consumers, it has also brought new complications and frustrations. With every new form of entertainment, it seems, consumers must buy a new gadget, install new software, and worry about new issues like online security and privacy. Little beknownst to many, a law passed in 1998 called the Digital Millennium Copyright Act (DMCA) ushered in a new labyrinth of laws complicating the lives of consumers even further. The DMCA was enacted with the mission of protecting the copyrights of authors, musicians, movie studios and creators of digital content while considering the fair use needs of libraries, researchers, universities, and Internet service providers.

However, in the nearly 10 years since the DMCA made "digital rights management" (DRM) a common topic in technology journals, a never-ending stream of lawsuits, legal threats, debates and testimony has revolved around a single question: Has the DMCA eroded the fair use rights of the public?

Highlights of the DMCA

The DMCA implements the treaties signed in 1996 at the World Intellectual Property Organization (WIPO) Geneva conference which prohibit circumvention of technology used by copyright owners to protect their works. The DCMA:

- Outlaws the manufacture, sale, or distribution of circumvention devices used to illegally copy software;
- Makes it a crime to circumvent anti-piracy measures built into most cccommercial software, and
- Requires that "webcasters" pay licensing fees to record companies.

The Act provides exemptions from anti-circumvention provisions for nonprofit libraries, archives, and educational institutions under certain circumstances. It also permits circumvention of copyright protection devices – with the permission of the copyright owners – for the purposes of conducting encryption research, assessing product inoperability, and testing computer systems.

With regard to anti-circumvention provisions, the DMCA distinguishes between technology designed to control *access* to a work and technology that controls *use* of a work once the work has been accessed. Since copying of a work may be a fair use under appropriate circumstances, section 1201 does not prohibit the act of circumventing a technology that prevents copying. However, it does prohibit circumvention to gain unauthorized access to a work. [1]

The concept of fair use, as provided in Section 107 of the Copyright Act, allows for information users to exercise a right of copyright without the prior permission of the copyright holder. Using a portion of a copyrighted work for "criticism, comment, news reporting, teaching, scholarship, and research" are examples of uses that might be protected under fair use.

[1] The Digital Millennium Copyright Act of 1998, U.S. Copyright Office Summary, December 1998

Denying Technological Development and Fair Use

Despite the DMCA's exemptions and vague language, which appear to provide some room for fair use applications, a number of cases have disproved fair use rights in favor of safeguarding the interests of copyright holders and distributors. Much of the debate over DRM versus fair use started with the case of *Universal City Studios v. Corley*.

First Amendment Challenges to DMCA Defeated

In January 2000, eight major U.S. motion picture studies, led by University City Studios, brought suit against a Norwegian teenager named Eric Corley and two other website operators for posting a software program they developed called DeCSS. The program is capable of decrypting encrypted DVDS and allowing the sound and video files to be played on non-compliant players or copied to a computer hard drive. The district court found the defendants in violation of Section 1201(a)(2), the anti-trafficking provision related to access-circumvention tools. The court rejected the defendants' argument that their actions fell under any of three statutory exceptions in the DMCA: circumvention for purposes of reverse engineering, encryption research, or security testing. The court also rejected their fair use defense.

Corley appealed his case to the Second Circuit on grounds of First Amendment violation by denying fair use and on the grounds that computer code is speech entitled to First Amendment protection.

Not surprisingly, the Second Circuit rejected Corley's fair use appeal due to lack of evidence showing activities constituting fair use. More interestingly, the court rejected the claim of First Amendment protection of computer code as speech by applying an analysis of the

mechanics of the law underlying a First Amendment challenge. First, the court determined that the DMCA is a "content-neutral" regulation subject to "intermediate" government scrutiny because the government interest in protecting copyrighted content was unrelated to the suppression of free expression. This is a lesser standard than if the Act were deemed a "content-specific" regulation of speech subject to strict judicial scrutiny. Because the regulation of expressive activity under the DMCA is "content neutral," the government's purpose in protecting copyright infringement is the controlling consideration. In the case of *University City Studios v. Corley*, the Court decided against the First Amendment violation claim because (1) the DMCA furthers an important or substantial government interest, (2) the governmental interest is unrelated to the suppression of free expression, and (3) the incidental restriction on alleged First Amendment freedoms is no greater than is essential to the furtherance of the government's interest.

United States v. Elcom Ltd.

Corley had claimed fair use in developing and sharing a tool that enabled consumers to exercise fair use in how they used their DVDs. Through the DMCA, however, the copyrighter owner's rights gained a higher level of protection than the rights of fair use. In another groundbreaking case, *United States v. Elcom Ltd.*, consumers were denied a software tool that enabled them to make fair use of e-books through technology developed to complement Adobe's ebook files.

Elcomsoft was a privately owned software company headquartered in Moscow that developed the Advanced eBook Processor, a program allowing users to remove the use restrictions on Adobe Acrobat PDF and ebook-formatted files. The resulting file could then be

copied, printed, and generally used at will. The court noted that this enabled various fair uses of ebooks, such as allowing the lawful owner to make a backup copy, but also enabled potential copyright infringement. Elcomsoft cited legislative history and statutory language showing Congressional intent to allow users to circumvent use controls in order to make fair use of copyrighted material. Elcomsoft argued that the DMCA did not prohibit circumvention of use controls to allow fair use; therefore, it did not prohibit dissemination of tools that circumvent use controls to enable fair use. The district court agreed with the first premise but disagreed with the second, ruling that the DMCA banned the dissemination of all circumvention tools, whether or not they enabled fair use.

The decisions in this case were a true blow against consumer rights to exercise fair use of copyrighted material lawfully purchased. Elcomsoft had argued that their software enabled consumers to exercise two judicially accepted fair uses protected by the First Amendment – the right to make an electronic copy of a work for personal use and the right to make an archival copy of electronic media. However, the court declared that these claims of fair use rights were misplaced – that both rights stemmed from specific statutory sources, not from the First Amendment.

As these and other cases echoed the power of the DMCA to protect copyright owners of digital content while stifling fair market technology development, it became clearer that, as in Carrie Russell, copyright specialist for the American Library Association, puts it, "fair use and piracy are viewed the same."[2] Gary Shapiro, president and CEO of the Consumer Electronics Association, also summarized the situation succinctly: "The technology industry is

[2] Carrie Russell, "Fair Use Under Fire," *Library Journal,* August 2003.

revolutionizing our ability to access and use information. This revolution grinds to a stop if the content industry is allowed to dictate the products, functions, and features available to consumers."[3]

Writing on behalf of the Electronic Frontier Foundation, a nonprofit organization that represents consumers' digital rights, intellectual property attorney Fred von Lohmann enumerates a number of ways in which DRM technologies backed by laws like the DMCA threaten to undermine fair use, including:

- A reduction in freedom of expression, to the extent DRM interferes with review, commentary, scholarship, and parody;
- A reduction in innovation, to the extent DRM legislation discourages companies to develop technologies that interact with copyrighted works;
- An erosion of privacy, to the extent that DRM compromises user anonymity through licensing requirements;
- Undermining archives, libraries, and others who store and preserve cultural heritage, to the extent DRM systems prevent free archiving of copyrighted content; and
- Lessened competition, to the extent that the threat of DMCA lawsuits prevent companies from engaging in legitimate reverse engineering of competitors' products.[4]

[3] Ibid., p. 33.
[4] Fred von Lohmann,"Fair Use and Digital Rights Management: Preliminary Thoughts on the (Irreconcilable?) Tension between Them," Electronic Frontier Foundation, www.eff.org.

Shortchanging Consumers

The case history of DMCA-related lawsuits limiting consumer choice and fair use options continues to grow. Following are a number of examples:

- Owners of Apple iPods would be no doubt thrilled to be able to play songs other than those sold by Apple on their MP3 players. RealNetworks had come up with a technology called "Harmony" to allow music sold by Real's digital download store to play on iPods. Until Harmony, the only DRM-restricted music format playable on the iPod was Apple's own "Fairplay" format. Although the iPod plays a variety of DRM-free formats, Real wanted to maintain DRM copyright protection of its music files while enabling them to be played on iPods. Within days of the July 2004 announcement of the Harmony technology, Apple threatened legal action and disabled Harmony in updates of its iTunes software. In the end, Apple's threats of legal action led Real to give up its efforts. As a consumer who doesn't even own an iPod, I am outraged by this. One would think Apple could be challenged on grounds of monopolizing the marketplace and preventing fair competition.
- Companies that created software to allow gamers to play PlayStation console games on PCs have been sued by Sony, resulting in the market withdrawal of emulation software that would have expanded consumers' free market buying options. In its suits against Connectix (the maker of the Virtual Game Station for Macintosh computers) and Bleem (the leading vendor of PlayStation emulator software for Windows PCs), Sony claimed that its competitors had violated the DMCA by engaging in unlawful circumvention, even though the development of interoperable software has been recognized by the courts as a

fair use under copyright. Both companies were unable to bear the high costs of litigation against Sony and pulled their products off the market. No similar emulation products have been introduced since then, forcing consumers to use Sony console hardware for PlayStation games they have bought.

- Sony also sued Gamemasters, creator of a peripheral device which enabled owners of U.S. PlayStation consoles to play games purchased in Japan and other countries. Although there was no infringement of Sony's copyright, the court granted an injunction under the DMCA's anti-circumvention provisions. The High Court of Australia, however, came to a different conclusion in a similar case. In *Stevens v. Kabushiki Kaisha Sony Computer Entertainment*, the court held in 2005 that the regional access coding on Sony Playstation computer games did not qualify for legal protection, as it did not prevent or inhibit copyright infringement.
- Fans of the videogames ninja Gaiden Dead or Alive 3, and Dead or Alive Xtreme Beach Volleyball modified their games to create new "skins" to change the appearance of characters who appear in the game. Only consumers who already owned the games could make use of the skins. The hobbyists swapped skins on a website called ninjahacker.net. Temco Inc., which distributes the games, brought DMCA claims against the website operators and gamers who frequented it. The suit was ultimately dismissed after the website was taken down and settlements negotiated with the site's operators. I find this another outrageous abuse of the DMCA's circumvention and copyright protections when the hobbyists' creative output did nothing to threaten sales or market share of the games and did not even comprise a commercial product.

- Sony-BMG released more than 15 million copy-protected CDs in the U.S. market as of early 2006. Although the movement toward universal CD copy-protection faltered after a Sony-BMG technological snafu known as the "rootkit" scandal in late-2005, no major label has renounced the use of copy-protection on CDs. Such copy-protection technologies are certain to interfere with the fair use rights of music fans. Millions of consumers who have purchased iPods or other MP3 player are not able to copy the CDs to listen to on their devices, nor are they able to make "mix CDs" for personal listening pleasure.

Bringing New Problems to Libraries

Libraries have also had their struggles resulting from DMCA legislation. To start, "browsing the stacks" – which library patrons are doing more frequently by scrolling their computer screens than strolling the aisles – may have new limitations under DRM, according to Carrie Russell of the American Library Association.

"If DRM and the legislation that supports it continue to be developed solely, in theory, as an attempt to limit piracy of digital content, it portends myriad negative long-term implications for how our society will be able to access and interact with information" wrote Russell.[5]

DRM also affects a library's ability to archive materials. As technology advances, libraries will need to transfer works from one format to another. The DMCA's exemption for circumvention of copyright controls by libraries only goes so far as to allow nonprofit libraries, archives and educational institutions to circumvent for the purpose of determining whether they wish to obtain authorized access to the work.

[5] Carrie Russell, "Fair Use Under Fire," *Library Journal*, August 2003.

Library associations comprising the Library Copyright Alliance[6] have testified to the need for a first-sale doctrine for digital content that must embrace:

- Interlibrary lending of digital works;
- Unchaining works to allow use of digital works in classrooms by teachers and students;
- Preservation of digital works through lawful archiving;
- Limitations on licensing restrictions with regard to exclusive rights of ownership that unduly restrict access to digital works; and
- Encouraging donations of works to libraries irrespective of format and without threat of litigation to donors.[7]

Library associations have also requested the Copyright Office to institute anti-circumvention exemptions to allow for the creation of film clip compilations by teachers for educational purposes. "CSS technology currently prevents effective use of film clips in the education environment, and other technological measures will prevent similar uses of music clips," said the Associations[8].

On the other side of these issues, the Association of American Publishers believes that amending the law in these ways would "radically transform" the traditional role of libraries. "More importantly, it would do so at the expense of authors and publishers trying to utilize the same digital network capabilities that are coveted by the library community to legally exploit

[6] The Library Copyright Alliance consists of the American Library Association, Association of Research Libraries, American Association of Law Libraries, Medical Library Association and Special Libraries Association.
[7] James G. Neal, (Summary of Intended Testimony) on behalf of the American Library Community, Nov. 29, 2000
[8] Ibid.

their copyrights through the introduction of new formats and business models for making literary works available in a competitive global marketplace."[9]

In its report mandated by Congress for purposes of reviewing the DMCA and its interaction with copyright law and technology, the Copyright Office declined recommending adoption of a "digital first sale" provision requested by the library associations. However, in discussing the associations' request for an archival exemption to make copies of digital files under fair use, the Office recommended as one possible solution that Congress amend section 109(a) of the copyright law to allow digital copies lawfully made and *lawfully distributed* to be subject to the first sale doctrine.[10]

Chilling Scientific Research and Fair Use

If the DMCA's impact on consumers and libraries could be considered disconcerting and troublesome, how technology companies have used the law to control the work of technology scientists is nothing less than egregious.

White House Cyber Security Chief Richard Clarke, speaking at Massachusetts Institute of Technology in October 2002, called for DMCA reform, saying the law had been used to chill important computer security research. "I think a lot of people didn't realize that it would have this potential chilling effect on vulnerability research," he was quoted in the Boston Globe[11].

[9] Allan R. Adler, (Summary of Intended Testimony), Vice President for Legal and Governmental Affairs, Association of American Publishers, Inc., Nov. 29, 2000.
[10] Executive Summary, Digital Millenium Copyright Act, Section 104, U.S. Copyright Office, Library of Congress.
[11] Electronic Frontier Foundation, "Unintended Consequences: Seven Years under the DMCA,", April 2006, www.erff.org.

Examples of the DMCA being used to squelch what many would consider fair use for the benefit of society (and even to the benefit of companies employing the DMCA to file suit) are many:

- In September 2000, a multi-industry group known as the Secure Digital Music Initiative (SDMI) issued a public challenge for techies to defeat certain watermarking technologies intended to protect digital music files. Princeton computer science professor Edward Felten and a team of researches at Princeton, Rice, and Xerox took up the challenge and succeed in removing the watermarks. When the team tried to present its results at an academic conference, however, SDMI representatives threatened the researchers with liability under the DMCA. The threat was ultimately withdrawn and a portion of the research was published at a subsequent conference, but only after the researchers filed a lawsuit.
- In October 2003, a Princeton graduate student named J. Alex Halderman was threatened with a DMCA lawsuit after publishing a report documenting weaknesses in a CD copy-protection technology developed by SunnComm. Halderman revealed that merely holding down the shift key on a Windows PC would render the technology ineffective. SunnComm threatened legal action but quickly withdrew its threats in the fact of public outcry and negative press coverage.
- Hewlett-Packard issued DMCA legal threats when independent researchers demonstrated vulnerabilities in HP's Tru64 UNIX operating system which the company had been aware of for some time, but had not bothered to fix. After the DMCA threat received widespread media attention, HP ultimately withdrew the threat.

- In 2004, publisher John Wiley & Sons dropped plans to publish a book by security researcher Andrew Huang due to DMCA liability concerns. The publisher had commissioned Huang to write a book that described the security flaws in the Microsoft Xbox game console, flaws that Huang had discovered as part of his doctoral research at MIT. Wiley dropped the book following Microsoft's legal action against a vendor of Xbox "mod chips" in early 2003, and the music industry's threats against Professor Felten's research team. After extensive legal consultations, Huang was able to get the book published by No Starch Press.
- In spring 2000, Microsoft invoked the DMCA against the Internet publication forum Slashdot when technologists alleged that Microsoft had changed its open security standard known as Kerberos to prevent non-Microsoft servers from interacting with Windows 2000. While Microsoft responded to the criticism by publishing its Kerberos specification, it required users wanting to access to the specification to agree to a "click-wrap" license that forbade disclosure of the specification without Microsoft's prior consent. When Slashdot members responded by republishing the Microsoft specification, Microsoft invoked the DMCA, demanding that Slashdot remove the republished specifications.

Georgetown law professor Julie Cohen commented that Microsoft's use of the DMCA in this case showed that, "A publisher can prohibit fair-use commentary simply by implementing access and disclosure restrictions that bind the entire public. Anyone who discloses the information, or even tells other how to get it, is a felon."[12]

[12] Electronic Frontier Foundation, "Unintended Consequences: Seven Years under the DMCA," April 2006, www.erff.org.

Although the DMCA contains an exemption for encryption research, many legal and scientific commentators have criticized the exemption for being too narrow and too vague, thereby chilling legitimate scientific encryption research.[13] Encryption research is exempt from liability for circumvention if it is conducted in "good faith," if the encrypted copy is lawfully obtained, the act of circumvention is "necessary" for the research, and the researcher made a good faith effort to obtain authorization from the copyright owner before engaging in the circumvention. The exemption shields encryption researchers only from liability under Section 1201(a) for access-control circumvention. It does not insulate researchers from liability under Section 1202 for alteration of copyright management information, or under 1201(s) for manufacturing technologies that circumvent rights-control technologies.

Furthermore the DMCA significantly affects the manner in which the research is conducted. It limits the universe of individuals with whom researchers can freely communicate about their research; it requires disclosure of the intention to engage in research and the fruits of such research to third parties; it limits avenues for publication of the research, and it can even affect the content of academic research papers.[14] The requirement to notify copyright owners of research involving their products gives copyright owners the opportunity to ask for modifications of the paper in order to protect their economic interests. Indeed, in a number of cases, copyright owners have asked for exactly these kinds of modifications. A refusal to accede to "reasonable" requests for change could be taken as a sign of lack of good faith.

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[13] Joseph P. Liu, "The DMCA and the Regulation of Scientific Research," *Berkeley Technology Law Journal*, Vol. 18:502 (2003).
[14] Ibid, p. 515.

It's ironic that while the DMCA is intended to protect encryption technology from circumvention, the law's effect on encryption research is making encryption technologies more susceptible to such attacks, since copyright owners are not able to improve their systems using the results of open and legitimate encryption research.

It's no exaggeration to say that the DMCA is having a chilling effect on encryption researchers, who have refused to publish their research results in response to concerns over DMCA liability. For example, the Dutch cryptographer Niels Ferguson declined to publish the results of research he had conducted regarding High Bandwidth Digital Content Protection, a system used by Intel to encrypt video. Ferguson had found weaknesses in that system, but decided not to publish the results and removed all references to this research from his website for fear of DMCA liability. Other researchers have similarly indicated that they have withheld publishing their research results out of the same concern.

Encryption researcher David Wagner expressed the DMCA's chilling effect in comments submitted to the Register of Copyrights:

> As an academic researcher, I personally find it a little scary to consider doing research on copyright protection schemes, because of 1201(f). I analyze real-world security systems. If, in doing so, I discover a weakness in some deployed system, I face an unsavory choice: tell no one, or publish. If I decide to publish, I have to worry about the threat of retaliation from those trying to sell the flawed system. Whether or not I would eventually win in court, the threat of having to spend time and money on a lawsuit is enough to make me tend to shy away from studying copyright protection.[15]

[15] Ibid, p.516.

Threats and Encouragements toward Fair Use

It's clear that consumers are being shortchanged through companies exploiting the DMCA to protect their intellectual property and impede fair competition. Interestingly, however, the computer and recording industries have communicated mixed messages regarding the digital fair use rights of consumers. The Digital Media Association (DiMA) -- with corporate members that include Microsoft, Apple, AOL, Napster, Motorola, Amazon, and Sony Connect – has a three-pronged mission:

- To promote pro-consumer competitive opportunities in digital distribution, transmission, broadcast, and retail of digital media;
- To encourage the development and use of responsible measures to protect intellectual property rights, including the payment of fair and reasonable royalties associated with such rights; and
- To oppose technological and legal barriers that inhibit innovation or adoption of new technologies, products and services.

While some of the DMA's members could be accused of double-speak with regard to their actions that have limited pro-consumer technologies, DiMA has requested the U.S. Copyright Office to extend existing limitations on the rights of copyright owners into the digital environment, to extend the first sale doctrine to content lawfully acquired by digital transmission, and to allow consumers to make one archival copy of digitally-delivered media to guard against losses from technical errors or equipment failure.[16]

[16] Comments of the Digital Media Association submitted to the Copyright Office, Library of Congress and the National Telecommunications and Information Administration, Department of Commerce.

"The 'first sale' doctrine must unambiguously allow consumers to freely transfer and resell copies of copyrighted works that they purchase online via digital downloading," said DiMA in comments to the Copyright Office.[17]

Small progress is in sight on some fronts. For example, Microsoft's Zunes MP3 player allows three instances of copy-sharing or back-up copying per song file purchased. On the library front, the American Library Association's Office for Information Technology Policy has been working with the Open e-Book Forum to develop standards that support library functions, such as library lending.

Solutions to fair use problems, however, often invoke more licensing requirements that can compromise consumer privacy. Recently proposed legislation to update the Copyright Act – the Section 115 Reform Act of 2006 (SIRA) – is a strong case in point. SIRA would require licensing for many instances of consumer fair use. Moreover, the proposed legislation brings new threats to consumers' freedom to exercise fair use. A coalition of the American Association of Law Libraries and numerous other consumer organizations and communication companies have characterized SIRA as "an extraordinary expansion of copyright rights that would harm technology, innovation, and consumers."[18] According to such SIRA opponents:

- For the first time, every incidental, server, cache, network and buffer copy made in digital transmission systems, digital networks, and computers and other personal consumer

[17] Ibid.

[18] Letter dated June 6, 2006, submitted to Committee on the Judiciary, Subcommittee on Courts, Intellectual Property and the Internet, U.S. House of Representatives. Submitted on behalf of American Ass'n of Law Libraries, BellSouth Corp., Bonneville Int'l Corp., Computer & Comm'ns Industry Ass'n, Consumer Electronics Ass'n, Consumer Project on Technology, Cox Radio Inc., Electronic Frontier Foundation, Entercom Comm'ns Corp., Greater Media Inc., Home Recording Rights Coalition, Local Radio Internet Coalition, National Religion Broadcasters Music License Committee, Public Knowledge, RadioShack Corp., Salem Comm's Corp., Sirius Satellite Radio Inc., U.S. Public Policy Committee of the Ass'n for Computing Machinery, and XM Satellite Radio Inc.

equipment would be subject to the control of copyright owners and would require licensing.

- For the first time, every digital performance of display would be considered a distribution and require consumer licensing, which could apply to every timeshift recording on a VCR or TiVo, any Web-posted audio or video clip, every analog cassette or CD recorded from FM or HD radio, etc.[19]

Not What Congress Intended?

Copyright experts such as Jessica Litman, professor of law at University of Michigan Law School and author of *Digital Copyright,* point out how the concept of copyright protection has changed over the last century. Originally, Littman observes, copyright was conceived as a bargain between authors and the public. In exchange for limited exclusive rights for copyright holders, the public was free to "enjoy, consumer, learn from, and reuse the works" in any way outside of the copyright owner's enumerated rights. In the last thirty years, however, the propertization of copyright has given copyright holders broader and stronger copyright protection with greater control over the use of copyrighted materials. "We now talk of copyright as property that the owner is entitled to control – to sell to the public (or refuse to sell) on whatever terms the owner chooses." [20]

To compound today's copyright challenges in the digital age, Litman argues that Congress, lacking the necessary "interest, expertise, and institutional memory," has abdicated its role in representing the public interest when considering amendments to the Copyright Act.

[19] Ibid.

[20] Albert Sieber, "The Constitutionality of the DMCA Explored: Universal City Studios, Inc. v. Colrey & United States v. Elcom Ltd.," *Berkeley Technology Law Journal,* Vol. 18:7 (2003).

Instead, Congress is allowing interested parties to negotiate compromises that typically bestow the broadest possible rights to copyright holders, says Litman.

New Fair Use Legislation Proposed

Fortunately for consumers, not all of Congress is sitting back indifferently to the copyright struggles between industry and consumers. U.S. Representatives Rick Boucher and John Doolittle last February introduced the Fair Use Act of 2007, also known as the "Freedom and Innovation Revitalizing U.S. Entrepreneurship Act of 2007." Among its amendments to the DMCA, the proposed legislation would add exemptions for:

- an act of circumvention that is carried out solely for the purpose of making a compilation of portions of audiovisual works in the collection of a library or archives for educational use in a classroom by an instructor;
- an act of circumvention that is carried out solely for the purpose of enabling a person to transmit a work over a home or personal network, without uploading the work to the Internet for mass distribution;
- an act of circumvention carried out solely for the purpose of gaining access to one or more works in the public domain that are included in a compilation consisting primarily of works in the public domain;
- an act of circumvention done to gain access to a work of substantial public interest solely for purposes of criticism, comment, news reporting, scholarship, or research; or

- an act of circumvention done to enable a library or archives to preserve or secure a copy to replace a copy that is damaged, deteriorating, lost, or stolen. [21]

Conclusion

The digital age – delivering worldwide access to the Internet – has brought new opportunities for copyright holders to disseminate their works, along with new conveniences to consumers to access those works online. The DMCA was enacted to protect the economic rights of writers, musicians, movie producers, software creators and other digital authors susceptible to unbridled copyright infringement in a world joined by computer keystrokes and separated by anonymity. Congress may have had good intentions in instituting the DMCA, but it's clear that the fair use rights of consumers, scientists and librarians are suffering. Corporations are furthering their commercial interests by using the DMCA's black-and-white language around circumvention to stamp out instances of fair use, which, in the past has served as a catalyst for innovation and competition. The Copyright Act's provisions for fair use are purposefully vague, allowing for specific cases to be weighed and judged by their own circumstances and merits. Under the scope of the DMCA, there is little opportunity to consider the merits of fair use. If the spirit of the Copyright Act is to accommodate the needs of the digital age, clearly there is a need for further legislation to encourage a healthy marketplace of technological innovation, free market competition, freedom of speech, and consumer rights … all made stronger through applications of fair use.

[21] Summarized from the draft bill posted of the website of U.S. Representative Rick Boucher, www.boucher.house.gov