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Digital Millennium Copyright Act

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The Digital Millennium Copyright Act:

On October 12, 1998, the U.S. Congress passed the Digital Millennium Copyright Act (DMCA). It was signed into law on October 28th, by President Clinton. The Act was designed to update current United States Copyright laws to reflect recent Congressional concern regarding the status of copyright protections in the age of the Internet and electronic formats and to incorporate into United States Copyright law provisions that would implement aspects of two World Intellectual Property Organization (WIPO) Treaties concluded in 1996.

In an effort to address increasing concerns regarding the spread in the piracy of copyrighted works, in particular the proliferation of unauthorized versions of music CDs and pirated software as well as the increase in the use of the Internet as a source of unauthorized copyrighted materials, The DMCA established prohibitions on the development of any means to overcome or work around various security technologies or methodologies that exist to preserve the copyright. To this end the DMCA establishes prohibitions on the act of circumventing technological measures that effectively control access to a work protected under the U.S. Copyright Act,. The DMCA specifically prohibits the manufacture, importation, offering to the public, providing or otherwise trafficking in any technology, product, service, device, component or part thereof which is primarily designed or produced to circumvent a technological measure that effectively controls access to or unauthorized copying of a work protected by copyright, has only a limited commercially significant purpose or use other than circumvention of such measures, or is marketed for use in circumventing such measures[1].

The DMCA also makes it illegal for a person to manufacture, import, offer to the public, provide, or otherwise traffic in any technology, product, service, device, component or part thereof which is primarily designed or produced to circumvent a technological measure that effectively protects a right of a copyright owner in a work protected by copyright, has only a limited commercially significant purpose or use other than circumvention of such measures, or is marketed for use in circumventing such measures. In addition the DMCA prohibits, among other actions, intentional removal or alteration of copyright management information and knowing addition of false copyright management information if these acts are done with intent to induce, enable, facilitate or conceal a copyright infringement. Each prohibition is subject to a number of statutory exceptions[2].

As was the case with the 'No Electronic Theft' Act (1997), the bill was originally and continues to be supported by the software and entertainment industries, and opposed by scientists, librarians, and academics. Within the entertainment industry and in particular the music industry support continues for the bill by the major recording companies with their major lobbying and promotional association, the Recording Industry Association of America (RIAA) maintaining a heavy court schedule with thousands of law suits against individuals that it asserts have violated the aforesaid provisions by the large scale download of pirated music CDs.

The DMCA can be summarized into the following outline of its provisions:

- Makes it a crime to circumvent anti-piracy measures built into most commercial software.

[1] 65 Fed. Reg. 35,673 (June 5, 2000)

[2] ibid

- Outlaws the manufacture, sale, or distribution of code-cracking devices used to illegally copy software.
- Does permit the cracking of copyright protection devices, however, to conduct encryption research, assess product interoperability, and test computer security systems.
- Provides exemptions from anti-circumvention provisions for nonprofit libraries, archives, and educational institutions under certain circumstances.
- In general, limits Internet service providers from copyright infringement liability for simply transmitting information over the Internet.
- Service providers, however, are expected to remove material from users' web sites that appears to constitute copyright infringement.
- Limits liability of nonprofit institutions of higher education -- when they serve as online service providers and under certain circumstances -- for copyright infringement by faculty members or graduate students.
- Requires that "webcasters" pay licensing fees to record companies.
- Requires that the Register of Copyrights, after consultation with relevant parties, submit to Congress recommendations regarding how to promote distance education through digital technologies while "maintaining an appropriate balance between the rights of copyright owners and the needs of users."
- States explicitly that "[n]othing in this section shall affect rights, remedies, limitations, or defenses to copyright infringement, including fair use..."[3]

DMCA Provisions for Copying or Reverse Engineering a Work of Art:

Given that the DMCA contains specific provisions that preserve the rights inherent in a copyrighted work[4] as well as prohibitions on various means and ways to circumvent

[3] The UCLA Online Institute for Cyberspace Law and Policy. (Feb 8, 2001). The Digital Millennium Copyright Act.

[4] 17 USC § 102 Subject matter of copyright: In general

(a) Copyright protection subsists, in accordance with this title, in original works of authorship fixed in any tangible medium of expression, now known or later developed, from which they can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device. Works of authorship include the following categories:

(1) literary works;
(2) musical works, including any accompanying words;
(3) dramatic works, including any accompanying music;
(4) pantomimes and choreographic works;
(5) pictorial, graphic, and sculptural works;
(6) motion pictures and other audiovisual works;
(7) sound recordings; and
(8) architectural works.

(b) In no case does copyright protection for an original work of authorship extend to any idea, procedure, process, system, method of operation, concept, principle, or discovery, regardless of the form in which it is described, explained, illustrated, or embodied in such work.

the efforts of copyright holders to assure their preservation, the issue has arisen concerning when may a person or organization make copies of a work (referred to as *fair use*) or subject to analysis (*reverse engineer*) a copyrighted work. With regard to fair use the DMCA states in pertinent part,

> Notwithstanding the provisions of sections 106 and 106A, the fair use of a copyrighted work, including such use by reproduction in copies or phonorecords or by any other means specified by that section, for purposes such as criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research, is not an infringement of copyright. In determining whether the use made of a work in any particular case is a fair use the factors to be considered shall include--
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> (1) the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes;
>
> (2) the nature of the copyrighted work;
>
> (3) the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and
>
> (4) the effect of the use upon the potential market for or value of the copyrighted work.
>
> The fact that a work is unpublished shall not itself bar a finding of fair use if such finding is made upon consideration of all the above factors[5].

Accordingly, under the fair use provisions it is not an infringement for the use of copyrighted materials provided that the user adheres to the requirements and provides the appropriate acknowledgement of authorship. Likewise an individual, having purchased a new

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The copyright of software although not expressly stated within the 8 categories has been recognized as falling within the general expression "in original works of authorship fixed in any tangible medium of expression, now known or later developed."

[5] 17 USC § 107

software program is within the provisions of the DMCA to make a copy of that software for archival purposes preserving a copy of the software for use in cases of disaster recovery should the computer on which the software is loaded be the subject of say hard drive failure that necessities the reinstallation of the software or the original software disk be lost or damaged beyond usability. But, the individual would be infringing the copyright in the software should that individual chose to perform multiple installations on multiple computers when licensed to only perform a single machine installation.

With regard to reverse engineering the DMCA states in pertinent part:

> Sec. 906. Limitation on exclusive rights: reverse engineering; first sale
>
> (a) Notwithstanding the provisions of section 905, it is not an infringement of the exclusive rights of the owner of a mask work for--
>
> (1) a person to reproduce the mask work solely for the purpose of teaching, analyzing, or evaluating the concepts or techniques embodied in the mask work or the circuitry, logic flow, or organization of components used in the mask work; or
>
> (2) a person who performs the analysis or evaluation described in paragraph (1) to incorporate the results of such conduct in an original mask work which is made to be distributed.
>
> (b) Notwithstanding the provisions of section 905(2), the owner of a particular semiconductor chip product made by the owner of the mask work, or by any person authorized by the owner of the mask work, may import, distribute, or otherwise dispose of or use, but not reproduce, that particular semiconductor chip product without the authority of the owner of the mask work[6] .

Under the DMCA a person who has developed or is in the process of developing an application or new software product designed to operate on say Microsoft Windows XP Professional and Windows Server 2003 having lawfully obtained the right to use a copy of XP and Server 2003 may circumvent any technological measure that effectively controls access to a particular portion of XP or Server 2003 for the sole purpose of identifying and analyzing those elements of the program, such as an analysis of the kernel, that are necessary to achieve interoperability of the application or software program which that person is developing. While it is clear from the DMCA that the intention of the Congress was and is to strictly prohibit the general disregard of copyright protections, it can be inferred from the historical notes to the DMCA that Congress had no intent to inhibit the innovation and development of new products

[6] 17 USC § 902

and recognized that the development of new software products requires an understanding of any other software program whit which the product under development would have to interact with or be dependent on for proper operation[7].

Reverse engineering is equally permitted where the management of computer security is an issue, for example the reverse engineering of various forms of encryption technologies is permissible where the knowledge gained will advance the general state of knowledge of encryption technology[8]. To qualify for the exemptions afforded under the DMCA a person must be engaged in a legitimate course of study, be employed in the field of encryption technology, and provide the copyright owner with notice of one's research. Furthermore, a person may develop the technology or employ technology to circumvent the security technologies where the person is engaged in good faith encryption research[9].

A final technological consideration looks at the issue of the fair use or reverse engineering of the technologies incorporate in the manufacture of semiconductor chips. Chapter 9 of Title 17 provides that a person for the purposes of teaching, analyzing, or evaluating the concepts of techniques in the mask work or the circuitry, logic flow, or component organization may reproduce the mask work without infringing the copyright[10]

IAW the DMCA Security Considerations -- Affects on Organizations Today:

With regard to the issue surrounding the DMCA security provisions it has been observed by Chuck Linebaugh, Director of IT at O'Hagan, Smith, and Amundsen, in his Online newsletter *Ask the IT Guy,* "The biggest impact that the DMCA has had on technology is with reducing competition and innovation. The act has impeded outside developers from producing "fair use tools," which are technologies to make legitimate copies of media. Litigation involving Adobe, Microsoft and RealNetworks that invoke the Digital Copyright Act has had a severe impact on developers who are fearful of lawsuits for developing fair use tools. This chilling of innovation is especially evident in the realm of disaster recovery plans, used by law firms that include the copy of CD and DVD media for offsite storage"[11].

Perhaps the biggest effect that the DMCA has had on society and with regard to the Internet in particular has been the ongoing series of court battles that relate to the online sharing of information in particular the online sharing of copyrightable materials. As indicates earlier in this paper, the RIAA has sued several thousand individuals over the issue of fair use as the RIAA interprets its application to the downloading of music files. The Grokster case presented the first major challenge to the DMCA.

Marybeth Peters, the Register of Copyrights, has testified before the Senate Committee on the Judiciary that The Supreme Court's recent ruling in *Metro-Goldwyn-Mayer Studios v. Grokster*,[*Ltd.,* 125 S.Ct 2764 (2005)] was one of the most significant developments in copyright law in the past twenty years. While technological progress can bring societal advances,

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[7] 112 Stat. 2860 (1998)

[8] ibid

[9] ibid

[10] 17 USC § 906

[11] Linebaugh, C. (May 2003).

it can also beget legal quagmires, as the emergence of online music distribution demonstrated. In its ruling in *Grokster*, the Court clarified that those who offer products and services in a way that induces others to engage in copyright infringement can be held secondarily liable for that infringement. By establishing these boundaries, the *Grokster* ruling appears to have encouraged productive negotiations and agreements within the music industry, ultimately benefiting the music consumer by making it easier to legitimately obtain music online. Subsequent U.S. and foreign court decisions demonstrate a growing acceptance of the *Grokster* ruling that those who induce infringement can be held responsible for what they have unleashed. This high-profile case also helped to raise the public consciousness as to the legal status of unauthorized peer-to-peer file-sharing of copyrighted works. Coupled with the increasing availability of legitimate online music services, we can hope that this will lead to a decline in illegal file sharing[12].

However, Ms. Peters appears in her testimony to contradict herself with regard to the social acceptance of the Grokster ruling when she states Section 115 of the Copyright Act governs the compulsory licensing of the reproduction and distribution rights for nondramatic musical works by means of physical phonorecords and digital phonorecord deliveries. However, it has rarely been used as a functioning compulsory license, serving rather as a ceiling on the royalty rate in privately negotiated licenses and thereby placing artificial limits on the free marketplace. Moreover, its "one-at-a time" structure for licensing individual musical works is incompatible with online music services' need to acquire the right to make vast numbers of already-recorded phonorecords available to consumers. Moreover, many online activities involve both the public performance right and the rights of reproduction and distribution, rights that usually are controlled by separate sets of middlemen in the case of musical compositions, but not in the case of sound recordings. The existing system is characterized by tremendous impediments to efficient and effective licensing of the rights needed by a contemporary online music service. Reform is needed to make it possible to clear quickly and efficiently the necessary exclusive rights for large numbers of works[13].

An indication of the problematic issues that lie in wait here were considered by the House in when debating the DMCA as reported in the House Report No. 94-1476 which records, although the courts have considered and ruled upon the fair use doctrine over and over again, no real definition of the concept has ever emerged. Indeed, since the doctrine is an equitable rule of reason, no generally applicable definition is possible, and each case raising the question must be decided on its own facts. On the other hand, the courts have evolved a set of criteria which, though in no case definitive or determinative, provide some gauge for balancing the equities. These criteria have been stated in various ways, but essentially they can all be reduced to the four standards which have been adopted in section 107:

> ``(1) the purpose and character of the use, including whether such use
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> is of a commercial nature or is for nonprofit educational purposes;
>
> (2) the nature of the copyrighted work;

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12 Peters, M. (September 28, 2005)

13 ibid

(3) the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and

(4) the effect of the use upon the potential market for or value of the copyrighted work."

Report 94-1476 continues, these criteria are relevant in determining whether the basic doctrine of fair use, as stated in the first sentence of section 107, applies in a particular case: ``Notwithstanding the provisions of section 106, the fair use of a copyrighted work, including such use by reproduction in copies or phonorecords or by any other means specified by that section, for purposes such as criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research, is not an infringement of copyright."

Further historical notes in 94-1476 indicate that the specific wording of section 107 as it now stands is the result of a process of accretion, resulting from the long controversy over the related problems of fair use and the reproduction (mostly by photocopying) of copyrighted material for educational and scholarly purposes. For example, the reference to fair use ``by reproduction in copies or phonorecords or by any other means" is mainly intended to make clear that the doctrine has as much application to photocopying and taping as to older forms of use; it is not intended to give these kinds of reproduction any special status under the fair use provision or to sanction any reproduction beyond the normal and reasonable limits of fair use. Similarly, the newly-added reference to ``multiple copies for classroom use" is a recognition that, under the proper circumstances of fairness, the doctrine can be applied to reproductions of multiple copies for the members of a class[14].

With regard to the Grokster case, Case Western University Law Professor Raymond Ku argues that giving copyright owners control over the opportunities created by file sharing technology requires choosing between competing interests and evaluating complex facts, a task better suited to legislatures than the courts. Second, a decision to protect the copyright holders would insulate a particular set of values and economic interests for many years to come. Ku states that copyright represents a paradigm based on certain assumptions and conditions, especially the assumption that "exclusive rights are necessary to secure the desired level of creation and distribution of creative works." However, the new technologies of digital copying and distribution are changing the paradigm. "By eliminating the need for distribution middlemen and making it possible to fund artists without denying the public access to their work," Ku says, "the Internet and digital technology challenge the existing paradigm and promise an altogether different world in which artists are compensated and the public enjoys unlimited access to the collective works of humanity."[15]

The Grokster decision has in many ways made the waters of fair use murkier with the development of a new theory of infringement referred to as “inducement”. This new theory of infringement places secondary liability on a whole new set of players and technologies, Peer-to-peer (P2P) file sharers that participate in the sharing of music files or movie files across the Internet, that were not specifically addressed when the DMCA was before Congress, in part because the technology was in its infancy and did not come into its own until after the DMCA was law. While the immediate results of Grokster has been somewhat chilling with regard to the

[14] **17 USC § 107** Historical and Revision Notes House Report No. 94-1476

[15] Beridix, J. (June 9, 2005)

facilitators (middlemen) of P2P driving players from the process thus reducing innovation, it has not diminished to any great extent the P2P sharing of files by smaller players that remain outside the realm of the facilitator. Furthermore, artists that remain outside the mainstream, which is the area of interest of the RIAA, are keen on utilizing P2P to expose their creative works to as large an audience as wish to avail themselves of the free downloads.

Is The DMCA Fair?

In general the DMCA has been implemented to preserve the status quo at the expense of innovators. The question of fairness in this implementation can be argued either way, but from the perspective of the general public their experience with the DMCA has been somewhat negative. As has been noted by the courts, Copyright Office officials, and the legislative history the DMCA contains provisions that while styled generally have resulted in confusion and on interpretation have served to stifle innovation. Fairness is really not the proper perspective to evaluate the DMCA, as there will always be someone that cries foul while others celebrate. A better measure is the benefit that society as a whole receives from the legislation. To date the DMCA has suffered from the usual political applications where one aspect of an industry with strong traditional influences has benefited at the expense of new, less understood and tried innovations. Over time this may even out as arbitrators more knowledgeable in the new technologies come into their own with the resulting influences and attendant results.

Potential Changes:

An area of the DMCA that remains murky and in need of clarification either by more judicious court review, informed by expert advice from the Information Technology, Educational, Scientific, Sociological communities, or more appropriately by reasoned, researched and adequately briefed legislative amendment are those sections that involve fair use as indicated above. The court created infringement of inducement has presented a chill not only to the P2P community, but to the technological community as well with the result that innovation has suffered with developers becoming more reluctant to design and produce new products that rely in part on the developers ability to reverse engineer an existing product in order to advance the new product. A bright line definition of inducement that takes into consideration the realities of the industry would go a long way toward stimulating innovation. Equally needed is a bright line definition expanding the fair use standards while balancing the traditional interests of such industries as the entertainment industry with the realities of fringe artist development. Much of this may well settle out over time as the innovators become the standard-bearers and hold sway with their ideas.

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