

Copyright Protection in Cyberspace: A critical study with reference to Electronic Copyright Management Systems (ECMS)

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Abstract

In this paper the author has tried to exhibit that the copyright protection of computer programmes which has though reached to the maturity stage but many question are yet to be answered .Thus a general overview of copyright protects ,followed by examination of the infringing act of copying with regards to computer programmes , the technological protection measures used to access control ,examining situations after Digital Millennium Copyright Act and ,the EU Directive .The legal backing for the technical measures , concludes that the technological measures used to access control mechanism may be appropriate answer in the light of piracy menace but whether it is on the cost of doctrine of fair use or rights of user, if so then precautions have to be taken to balance the both rights.

1. Introduction

The advancement of information technology and the dawn of the information society, intellectual property law has to be adapted to fit the new way of life¹.The key business of the Internet is computer .It is the largest and the most efficient distribution mechanism that has existed to date and at the same time it plays host to the largest number of piracy websites, from where one can download software. Books, movies and music are reproduced easily with a few clicks of the mouse, often making it difficult to differentiate an original from a copy .Considering the extent to which computer programmes and communications software are growing in market size and with great economic value, copyright protection is extremely important and essential. Even earlier , copyright has been supported by the judges who have usually been sympathetic to the principle of protecting the result of a person 's skill or effort .As Mr. Justice Peterson said in *University of London Press Ltd v University Tutorial Press Ltd* [1916] 2 Ch 601 :

“...what is worth copying is prima facie worth protecting.”²

By sophisticated copying methods and with the help of internet, if one's work is disseminated over the Internet; it becomes almost impossible for the copyright owner to control further dissemination without adequate protection³. The benefits to the user may also come with drawbacks. These drawbacks may become increasingly apparent from the enhanced control that copyright owners can be able to exert over access to works protected by copyright, and over further re-use. To control dissemination and copying of works, copyright owners have been developing technological protection measures like Electronic Copyright Management Systems (ECMS).These systems, in their most advanced form, allow the copyright owner to dictate when, and who, may access a work . Legislations (DMCA and EUCD) apparently give legal backing for the technical measures used to control access to works.

The users fear two consequences will flow from this enhanced control exerted by copyright owners. The first is that the public domain will be locked⁴ away, accessible and usable only at the behest of the copyright owner. The second is that creative works will only be accessible on a pay-per-view business model, with the result that only those who can afford to pay will be granted access. As a result, the balance between the private property rights and the public interest has seems to be tilted in favour of the former.

²David Bainbridge, *Introduction to Computer Law*, Fourth Edition 2000, Pitman Publishing , Edinburgh Gate , England .p 15

³ Green Paper on Copyright and Related Rights in the Information Society, <http://europa.eu.int/scadplus/leg/en/lvb/124152.htm> (visited 18 April 2004)

⁴ John Borland ,Music software company Napster said that it has blocked 317,377 user scr Staff Writer, CNET News.com May 9, 2000,at <http://news.com.com/2100-1023-240331.html?legacy=cnet> (visited 18 April 2004)

¹ Akdeniz, Y., Walker, C. and Wall, D. (2000) *The Internet: Law and Society*, London: Pearsons Longman p.45

In this paper the author has tried to exhibit that the copyright protection of computer programmes has though reached to the maturity stage but many question are yet to be answered. Thus a general overview of copyright protects, followed by examination of the infringing act of copying with regards to computer programmes, the technological protection measures used to access control, examining situations both the Digital Millennium Copyright Act and the Information Society Directive, legal backing for the technical measures, concludes that the technological measures used to access control mechanism may be appropriate answer in the light of piracy menace but whether it is on the cost of doctrine of fair use or rights of user, if so then precautions have to be taken to balance the both rights.

2. Copyright

The main function of copyright law is to protect the fruits of a person's skill, labour or work from being copied by others. Essentially, copyright laws exist to prevent others taking unfair advantage of a person's efforts⁵. The courts have shown very little sympathy for plagiarists, and have frequently showed that copyright law out to be interpreted in such a manner so as to protect the interest of the copyright owner⁶. Although copyright originally protected only the written word it has subsequently been extended to cover artistic and visual works together with rights in respect of the performance of works⁷. During the last century, cinematographic films and phonogram records were brought into the regime. More recently, radio and television broadcasts, satellite and cable transmissions have been identified as proper subjects for protection together with computer programs.⁸

The UK Copyright Act 1956 made no mention of computers or computer programmes.⁹ After the advent of computer products in mass in the market during 80's, the computer industry was flooded by

the computer software piracy¹⁰ problems¹¹. A variety of copyright statutes have been enacted over the years with the most recent is the Copyright, Designs and Patents Act of 1988. Which includes computer programmes in the category of literary work.

The European Community undertook, in the late 1980s to develop a policy concerning intellectual property protection for computer programmes to which member nations should harmonise their laws. The EC Directive, published in 1991, Article 2 (1) endorses the view that computer programmes should be protected under member states, copyright laws as literary works and given at least 50 years of protection against unauthorized copying¹².

In USA, The Copy right Act 1976 does not expressly list computer programmes as work of authorship, its legislative history suggest that Congress considered programmes to be copyrightable as literary works. Only in 1980, the

¹⁰ Software piracy is on the rise around the globe growing from 37 percent in 2000 to 40 percent in 2001, according to the Business Software Alliance's (BSA) seventh annual benchmark survey on global software piracy. The number of optical disks (CDs, DVDs etc) and cassettes seized by EU customs officers rose from 9 million items in 2000 to nearly 40 million items in 2001. (Illegal copies of optical discs and cassettes account for 42% of all items seized see at <http://www.bsa.org/usa/press/newsreleases/2002-06-10.1129.phtml> (visited 8 August 2006)

¹¹ A committee, known as the Whitford Committee was set up to examine copyright law in general, the report of which was published in 1977. The Committee found that with regards to computer software, works produced by or with the aid of a programmed computer, the current state of copyright law was unsatisfactory. Recommendations were thus made to improve the law accordingly. In 1981 the government acknowledged the Whitford Report by virtue of its consultative Green Paper on Copyright- Reform of the Law Relating, Designs and Performers' Protection.

[http://sgeag001web.ag.gov.au/www/rwpattach.nsf/viewasattachmentPersonal/C8DC5A4A82C553CECA256CCB0020D914/\\$file/International%20obligations.pdf](http://sgeag001web.ag.gov.au/www/rwpattach.nsf/viewasattachmentPersonal/C8DC5A4A82C553CECA256CCB0020D914/$file/International%20obligations.pdf) (visited 18 April 2004)

¹² Article 2 (1), the term of protection shall be fifty years from the time that the computer program is first lawfully made available to the public. http://europa.eu.int/smartapi/cgi/sga_doc?smartapi!celexapi!prod!CELEXnumdoc&lg=EN&numdoc=32001L0029&model=guichett (visited 18 April 2004)

⁵ *Supra* note 2 p.16

⁶ David Bainbridge, *Intellectual Property* (3rd Ed.1996) p 19

⁷ Rhys Bollen, *Copyright in the Digital Domain* http://www.murdoch.edu.au/elaw/issues/v8n2/bollen82_text.html#20 (visited 18 April 2004)

⁸ Catherine Swee Kian, *A guide to protecting your ideas inventions trade marks products*, 2002, TimesMedia Private Ltd, Times Centre, 1 New Industrial Road, Singapore, pg 110

⁹ In spite of this Act many writers considered they were protected as literary work. see Laaddie, H, Prescott. P. and Victoria, M. *The Modern Law of Copyright* (1st Ed. 1980) p.93

Act was amended by adding a definition of computer programme¹³.

3. Copyrights in Cyberspace

Copyright protection gives the author of work a certain 'bundle of rights'¹⁴ including the exclusive right to reproduce the work in copies, to prepare derivative works based on the copyright work and to perform or display the work publicly¹⁵. All these rights come into play in a network environment. It should be kept in mind that the principles of copyright that govern these rights are the same irrespective of the work being digital in nature or otherwise.

Right of Reproduction

This is one of the most important rights when it comes to the category of works that are covered by copyright legislation. The issue that has to be addressed here is whether the Internet user's copying of the author's work constitutes an infringement of the author's copyright?

In the case of Internet, the test of 'substantial similarity' test is not a problem because the software, if copied, will be identical to the software of the author. The Court of Appeals for the Federal Circuit in America in *Atari Games Corporation v. Nintendo of America Inc.*¹⁶, very clearly stated that "even for works that warrant limited copyright protection, verbatim copying is an infringement."¹⁷

¹³The US legislation took more rapid action with regards to computer software protection when in 1980 it enacted the Computer Software Copyright Act. In Australia, following the case of *Apple Computer Inc. v. Computer Edge Pty Ltd* [1984] FSR 246, the Australian Parliament enacted the Australian Copyright Amendment Act 1984 also see

http://www.murdoch.edu.au/elaw/issues/v8n2/bolles82_text.html#t20 (visited 17 April 2004)

¹⁴ This means that the holder of the copyrights has certain rights that are vested in him and only him unless he chooses to assign such rights.

¹⁵ There are numerous other rights also, which are specific to dramatic, literary works etc., which the author is not going into. The above mentioned rights are in no way exhaustive, but in the opinion of the author they are the rights that one can associate with computer software.

¹⁶ 975 F.2d, 832, The Court of Appeals for the Federal Circuit in America

<http://cyber.law.harvard.edu/openlaw/DVD/cases/atari/nintendo.html> (visited 17 April 2004)

¹⁷ This statement is essential in the case of copying of computer software from the Internet, for it signifies two things, the first being that the plaintiff in an internet copyright infringement case will have no difficulty in proving that the two are 'substantially similar' and second that this test may

Therefore, in the light of this judgment, proving that copyright over software has been infringed is easier. Section 102(b) of the American Copyright Act, does not give protection to them non-literal aspects of the computer programme¹⁸.

Public Performance and Display Rights

The issue of public performance does not come into play when one is talking about computer software. The right that does get affected is that of display. Often, software that is downloaded from the Internet¹⁹ gets displayed publicly, thus violating the copyright holder's right to display the work. Display of the work is also done by making copies which are then retailed or lent out, this also falls under the right to display, which the holder of the copyright has. Under American law the term 'display' is not defined. One has to look at the definition of the terms 'public performance',²⁰ and 'communication to the public. Therefore, under the statute, if one displays the computer software or the operation of the computer software over the Internet, it would amount to display to the public and a violation of the copyright holder's right.

Distribution Right

Copyright law grants the holder of the copyright the exclusive right to distribute copies of the work to the public by sale or by the transfer of ownership²¹. As explained above, the Internet by its very nature of being digital, facilitates the making of infinite number of copies without any loss of quality.

The problem is that, under statutory law, disseminating a work on a digital network may not only constitute a public performance or display by means of transmission, but may also be considered a distribution of the copies, for all those who access the network receive a copy of the work. The other problem that one faces when dealing with the distribution of computer software is that the person who distributes the copy does not strictly 'transfer the ownership' of the copy, as understood when one deals with a physical copy. Thus, a person can pass on infinite number of copies, which are digital

be reduced to a virtual nullity in cases of verbatim software copying.

¹⁸ 982 F.2d 693, *Computer Associates International, Inc. v. Altai, Inc.*, (2nd Cir. 1992). United States Court of Appeals, Second Circuit <http://www.bitlaw.com/source/cases/copyright/altai.html> (visited 8 August 2006)

¹⁹ Usually games and other multimedia works are displayed publicly

²⁰ Under the American Copyright Act, as per S 101, which defines the term public performance.

²¹ S106 (3) of the American Copyright Act, 1988 which include the right to issue copies of the work to the public not being copies already in circulation.

in nature and still retain the original copy. Thus, the distinction between public performance or display and distribution is blurred when it comes to software.²²

Derivative works

In the case of computer, the situation of derivative work is very different, for it includes software like patches or updates, which may be made by independent programmers or by programmers retained by the company that publishes the software.

There have been cases, when a programmer has taken two or more programmes and combined them to produce his work. The question is whether there is any copyright infringement in such a case. In *Midway Mfg. Co v. Artic Int'l*²³, the court ruled that it amounted to an unauthorized adaptation of the plaintiff's copyright. On the other hand, in *Lewis Galoob Toys Inc v. Nintendo of America*²⁴, the court held that the usages of such software did not amount to a violation of the defendant copyright or create any unauthorized derivative works because there was no creation of new work.

Caching (mirroring)

Another practice that causes numerous copyright violations on the internet, especially in relation to computer software is the practice of caching. Caching may be Local Caching and Proxy Caching.

Caching present difficult copyright issues on a number of fronts. Because catching involves the making of copies, it presents an obvious problem of potential infringement of the right of reproduction. In addition proxy catching may give rise to infringement of the rights of public distribution, public policy, public performance and digital performance, since copies of copyrighted works may be further distributed and displayed or performed from the cache server to members of public. Under the WIPO treaties, catching may also infringe the new rights of transmission and

²² It becomes difficult to distinguish between the licences that the holder of the copyright may have created

i.e. separate licences of distribution and display. So, at times it may become necessary to find a dividing line between the two.

²³ *Midway Mfg. Co. v. Artic International, Inc.*, 704 F.2d 1009 (7th Cir. 1983)

²⁴ *Lewis Galoob Toys Inc v. Nintendo of America*, The case dealt with a similar situation of software that enhanced the defendant software, COURT OF APPEALS FOR THE NINTH CIRCUIT 964 F.2d 965; 1992 U.S. App. LEXIS 11266; 22 U.S.P.Q.2D http://cyber.law.harvard.edu/openlaw/DVD/cases/Galoob_v_Nintendo.html (visited 8 August 2006)

access. Large ISPs may have proxy servers at many sites around the globe.

The issues of copyright law and computer software on the Internet cannot be in anyway being limited to the above mentioned rights. There are numerous areas that will appear where the interaction between copyright law and software on the Internet will surface.

4. Copyright Infringement

Copyright in a work is infringed when the work is copied without the consent of the copyright owner. In an infringement, it must be established that the defendant has copied the plaintiff form of expression and not his ideas. A copyright law deals with the form in which the work is expressed. It doesn't monopolies the idea of information²⁵. Thus computer programme, the expression is protected. This includes not only the code lines of the programme but also the structure²⁶. Underlying ideas and principles are not protected by copyrights²⁷. The US goes further than this, in that it not only denies protection to ideas but also to tangible form if it is deemed to be so closely connected with the idea underlying the work that there is no alternative way of expressing²⁸. Hence it

²⁵ The US has well defined legal principle that copyright protects expression but not ideas; thus the Copyright Act of 1976 specially states that ideas, procedures, process, system, methods of operation, concepts, principles and discoveries are excluded from copyright protection - 17 USC s 102 (a) at

<http://www.bitlaw.com/source/17usc/102.html> (visited 8 August 2006)

²⁶ The latter refers to the way in which the various parts and files are organized

²⁷ "protectionshall apply to the expression in any form of computer programme. Idea and principles which underlie any element of a computer programme ..are not protected by copyright .

²⁸ Known as the merger doctrine, where it is impossible to separate idea from expression because of the constraints which severly limit the ways in which the ideas contained in a computer programme can be expressed. See e.g. *NEC Corpn v. INTEL Corpn (1989) 10 USPQ 2d*, http://www.law.emory.edu/1circuit/dec96/96-1206.01a_fn.html (visited 8 August 2006) where it was held that such merger of idea and expression did not affect the copyright status of a computer program but was an issue of infringement. Even though INTEL's microcode programs were declared to be copyrightable material in principle, the case reinforces the look and feel approach in its practical effects because, as INTEL's programs were dictated by the instruction

is more important in the US to distinguish between protected expression and protected idea.. 'No body has ever been able to fix [the] boundary [between an idea and its expression] and nobody ever can – Judge Learned Hand²⁹

The problem arises when these specific rights get violated through the medium of the Internet. In this context, one has to understand the very nature of the Internet³⁰. As a medium, it allows a person to access a large amount of information and to copy that information in the same state as it is displayed³¹.

5. Copyright Protection through Technology: Electronic Copyright Management Systems (ECMS)

“The question surrounding the electronic use of copyright materials is not so much, 'How shall we prevent access and use?' as 'How shall we monitor access and use?' The real issue is to link identifying, monitoring, control and reward .The ideal is a system which can undertake several different tasks, preferably all at the same time. A system must be able to identify copyright materials, to track usage, to verify users, and to record usage and appropriate compensation”- Charles Clark³²

The problem is that there are more pirated copies on the Internet of any given software than there are originals that are downloaded from the publisher's hope page³³. That sets the scene for much active

set of the microprocessors involved and because there were no alternative ways of expressing the ideas, reverse analysis of the programs did not infringe.

²⁹ *Nicolas v Universal Picture Corpn 45 F 2d 119 (1930)*

³⁰ One can, via the Internet, download distribute them without any loss in quality or any errors. This poses a significant threat to the software industry. One can draw an analogy from the case of DAT (digital audio tap) which also allows one to make infinite copies without any loss in quality of music, *Sony Corp. of America v Universal City Studios, 464 U.S. 417, 104 S.Ct.774 (1984)*,

³¹ James M. Jordan III *Copyrights in an Electronic Age*

at <http://journal.law.ufl.edu/~techlaw/2/jordan.html> (visited 10 August 2006)

³² The copyright environment for the publisher in the digital world by Charles Clark , The Publisher in the Electronic World, International Publishers Copyright Council, IPCC, Turin, May 1994. <http://users.ox.ac.uk/~icsuinfo/clark.htm> (visited 10 August 2006)

³³ Even vendors that choose not to distribute software products through the Internet can find

research in the field known broadly as Electronic Copyright Management Systems (ECMS)³⁴ and seek a legal framework to protect against third parties circumventing these systems.

The copyright owners have an option to technology protection measures. Generally, to technology protection measures may be classified broadly as follows: access control measures and copy control measures. The former, as the name suggests, are used to control access to a work, which may or may not be copyright protected. Examples of access control measures include passwords, encryption and set-top boxes. Copy control measures are more closely linked to copyright as they control the extent to which a user who has lawful access to the work can make use of the work, such as making copies on other formats. In some cases, technology protection measures may control both access and copying or they may be used in conjunction with restrictions or conditions imposed by contracts, or with or as part of a electronic copyright management system (ECMS), that is, technology that is deployed to enable copyright owners to track, manage or prevent copying of their digital work, such as the digital watermarking system.

One type of ECMS is the easy, but widely used practice of digital watermarking. This is a technique whereby encrypted information is incorporated into a digitized work, and if some alteration of the work is effected which can not be visible to the naked eye, and surfer may be unable to change the alteration .This system allows the copyright owner to track and identify unauthorised copies made of the original work³⁵. These unauthorised copies can be detected by sending out 'robots' to probe through content of web pages. If an infringing copy is found, the copyright owner might require the ISP on whose server it is located, to remove that copy. Copies that have been downloaded from the Internet, and which circulate amongst users, will be capable of detection, as the copyright owner will be able to discover the digital alteration to the work³⁶.

themselves victims of rampant infringement. For example, id Software Inc. which developed the popular computer games Quake and Doom, estimates that 50 percent of the full versions of Quake now being played are unlicensed, having been downloaded from pirate Web sites.

³⁴ *Supra*,37 C.Clark. <http://users.ox.ac.uk/~icsuinfo/clark.htm> (visited 10 August 2006)

³⁵ Gimber (1998) Some thoughts on the implications of Trusted Systems for Intellectual Property Law 50 Stan L Rev 1671

³⁶ Digimarc & Copyright Protection -explaining the ways in which digital watermarking of online content enables copyright owners to find unauthorised copies of their work online and to

Much more sophisticated are the ECMS which prevent access being obtained to a work in the first place if authorisation is not given, and which thereafter can license use of that work on certain terms and conditions. A number of elements are involved in the composition of these ECMS³⁷. An extension of this system, and the most advanced, relies on the database and licensing system, but also incorporates the hardware (e.g. the computer, the modem, the printer) in which special semi conductor chips are incorporated³⁸. In time, it is anticipated that these ECMS will have a payment system incorporated, so the user can be automatically charged, and pay, for each use of a protected work³⁹.

5.1 Legal Protection - ECMS

There are several clusters of issues that are hindering the development of ECMS solutions. They are mostly three main areas: legal, standards-related, technology and privacy. Here we discuss about legal areas.

'Let content producers build their technical fences, but do not legislatively re-inforce them until experience proves the existence of one or more abuses in need of a specific cure'. Prof .J. E. Cohen⁴⁰

prove, with the watermark, that the copies originated from their work

<http://www.digimarc.com/licensing/avapps/AVAppDetails.asp> (visited 10 August 2006)

³⁷ Dr Daniel Gervais V.P International copyright clearance centre (1999) *Electronic Rights Management Systems*

WIPO/EC/CONF/99/SPK/10-A Available on the WIPO website.

http://216.239.39.100/search?q=cache:p9wxdc_7DnIj:ecommerce.wipo.int/meetings/1999/papers/pdf/gervais.pdf+WIPO/EC/CONF/99/SPK/10&hl=en&ie=UTF-8 (visited 10 August 2006)

³⁸ An article by Marks and Turnbull (2000) *The Intersection of Technology, Law and Commercial Licenses* [2000] EIPR 198 describes the extent to which technical protection measures have been developed, and illustrates the extent to which copyright owners perceive these measures will enable them to control copying of works over the Internet.

³⁹ For a discussion on payment systems see Miller (2000) *Payment in an On-Line World in Law and the Internet: A Framework for Electronic Commerce* Edwards and Waelde (eds) (Hart Publishing Oxford)

<http://www.law.ed.ac.uk/script/newscript/LawInterNet2.htm> (visited 10 August 2006)

⁴⁰ Prof.J.E.Cohen (1998) , [Some Reflections on Copyright Management Systems and Laws Designed to Protect Them](#), 12 Berkeley Tech L.J.

Despite uncertainty from many observer ECMS have been the subject of a raft of legislative measures at international, national and regional level⁴¹.

DMCA (Digital Millennium Copyright Act 1998)

In the US, protection for ECMS was first mooted in the Report of the Working Group on Intellectual Property Rights as part of the National Information Infrastructure Task Force⁴² (NII Report).

In response to the concerns of users who argued that such protection might inhibit access to materials in the public domain, the NII Committee considered that while technological protection may be applied to copies of works in the public domain, such protection attaches only to those particular copies, and not to the underlying work itself⁴³. Therefore protection against circumvention of ECMS was justified because it was not the work *per se* that was the subject of protection.

The US administration adopted with the rigorous approach suggested by the NII committee. The provisions have been enacted in Chapter 12 of the Digital Millennium Copyright Act 1998 (DMCA)⁴⁴. Broadly, the relevant section provides firstly, that no person shall circumvent a technological protection measure that effectively controls *access* to a work protected under the Act⁴⁵.

161 at 169 (comparing WIPO treaty with an earlier draft of U.S. implementing legislation).

⁴¹ See also MacKaay, *The Economics of Emergent Property Rights on the Internet in the Future of Copyright in a Digital Environment* P Bernt Hugenholtz (ed) (Kluwer 1996)

<http://www.wkap.nl/prod/b/90-411-0267-1?a=1> (visited 10 August 2006)

⁴² 1995 Intellectual Property and the National Information Infrastructure: The Report of the Working Group on Intellectual Property Rights. ISBN 0-9648716-0-1 (NII Report).

<http://www.anu.edu.au/mail-archives/link/link9603/0111.html>

⁴³ NII Report p 164 n 567 'Copies of the work in the marketplace free from copyright protection could be freely reproduced (and, in fact, the lower distribution costs of the NII may encourage increased availability of public domain works). Further, technological protection that restricts the ability to reproduce the work by technical means does not prevent reproduction by other means (such as quoting, manually copying, etc.)

http://web.sfc.keio.ac.jp/~naemura/IPRP/nii_ipr.html (visited 10 August 2006)

⁴⁴ Digital Millennium Copyright Act at <http://www.copyright.gov/legislation/hr2281.pdf> (visited 10 August 2006)

⁴⁵ Digital Millennium Copyright Act 1998, s. 1201(a)(1), prohibits individuals from circumventing technology measures that control

The focus here is thus on the act of circumvention which would facilitate *access* to a work protected by copyright. The second part prohibits trafficking in devices or services for circumventing technology measures that control *access*⁴⁶. Here the focus is on the *device* or *service* which would serve to facilitate access. The third part prohibits trafficking in devices or services for circumventing technology measures that protect the rights of a copyright owner. Thus, this part focuses on devices which might prevent or inhibit the copying of a work⁴⁷. The tough approach was taken in the DMCA has been tested in court in the US in *Universal City Studios Inc v Shawn Reimerdes*⁴⁸. The defendants were found liable for infringing the terms of the DMCA section 1201(a)(2), which is the section that prohibits the making available of technologies which are designed to defeat technological protections controlling access to a work and moreover programme (DeCSS) was found to be just such a technology.

The court did appreciate that by prohibiting circumvention of access controls, in some cases it may not be possible to use the underlying work in a way which might otherwise have been fair. However, it was also pointed out that the defendants were not being sued for infringement of copyright, but for offering and providing technology that could overcome the controls which guarded access to a creative work⁴⁹. Thus it would appear that these prohibitions against circulating devices and technologies designed to control access

access to copyrighted works.
<http://www.copyright.gov/title17/92chap12.html#1201> (visited 10 August 2006)

⁴⁶ Digital Millennium Copyright Act 1998, s. 1201(a)(2), prohibits trafficking in devices or services for circumventing technology measures that control access.

<http://www.cybercrime.gov/Sklyarovindictment.htm> (visited 8 August 2004)

⁴⁷ Digital Millennium Copyright Act 1998, s. 1201(b), prohibits trafficking in devices or services for circumventing technology measures that protect the rights of a copyright owner

<http://www.copyright.gov/title17/92chap12.html#1201> (visited 8 August 2004)

⁴⁸ *Universal City Studios, Inc., et al v. Shawn Reimerdes, et al.* 82 F. Supp. 2d 211 (LAK) (S.D.N.Y., Feb. 2, 2000)
http://www.phillipsnizer.com/library/cases/lib_case_82_cfm (visited 10 August 2006)

⁴⁹ *Ibid* and also see 111 F. Supp. 2d 294.
<http://cyber.law.harvard.edu/openlaw/DVD/NY/trial/op.html>

to creative works will be enforced in court in the US⁵⁰.

EUCD (EU Copyright Directive)

Many directive of EUCD⁵¹ drafted closely to DMCA and follow the developments in the US⁵². In 1997, in the Proposal for a Directive on Copyright and Related rights in the Information Society⁵³, it was stated that protection of ECMS was not to be directed against the circumvention of technological measures as such (the standard adopted in WIPO Copyright Treaty (WCT) in 1996). Rather the focus was to be on preparatory activities. This was seen as fundamental:

*'because the real danger for intellectual property rights will not be a single act of circumvention by individuals but preparatory activities to produce devices or offer services to circumvent'*⁵⁴.

So there was to be a wide ban on the act of circumvention which would in turn allow a wide ban on circumventing technologies. They are found

⁵⁰: Harry Mihet, *Fair Use Ignored by the Court of Appeals* (Universal City Studios, Inc. v. Corley) <http://www.law.duke.edu/journals/dltr/articles/2002/dltr0003.html> (visited 8 August 2004)

⁵¹ Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society http://europa.eu.int/smartapi/cgi/sga_doc?smartapi!celexapi!prod!CELEXnumdoc&lg=EN&numdoc=32001L0029&model=guichett (visited 8 August 2004)

⁵² The US Administration admitted that its preferred legislation went beyond what was in the WIPO Treaty but argued for the broader rule in part to set a standard that would help the US persuade other countries to pass similarly strong rules. House Sub Committee Holds Hearings on WIPO Treaty Bills OSP Liability 54 BNA Pat Trademark & Cop J 414 (9/18/97)

<http://venus.soci.niu.edu/~cudigest/CUDS10/cud1039>

⁵³ A copy of this paper can be found at <http://europa.eu.int/comm/dg15/en/intprop/intprop/1100.htm> & http://www.europeanaccess.co.uk/addinfo/pol_smc.htm (visited 10 August 2006)

⁵⁴ Copyright and related rights in the Information Society - Proposal for a Directive 10 December 1997. Commission press release.
http://europa.eu.int/comm/internal_market/en/intprop/news/1100.htm (visited 10 August 2006)

in Article 6 of EUCD⁵⁵ Directive. According Article 6 (1):

'Member States shall provide adequate legal protection against the circumvention of any effective technological measures'.

It might appear from Article 6 (1) that the standard differs from that to be found in the DMCA. The definition does not refer to *access*, and would appear only to prohibit circumvention, and devices, which facilitate reproduction of a work where that is not *'authorised by the right holder or as provided by law'*. Thus, circumvention of a technological measure in order to gain access to a work in the public domain might be permissible because the work is not protected by copyright, or can be used without permission of the owner of the copyright. Thus, the focus here is also on protection of *access* to works, and is not limited to circumvention for infringing purposes.

6. Analysis and Comparison of US and EU

Access

It becomes clear from the position taken by both the US and current position by the EU, that the focus of protection for creative works disseminated over the Internet is to be on *access*. But what about the fears of the users? That by giving such power to the copyright owner, the public domain will be inaccessible without to a pay-per-view system⁵⁶.

The DMCA

To deal with these access concerns, the House Committee on Commerce on the Digital Millennium Copyright Act of 1998 provided that the prohibition against circumvention:

*'shall not apply to persons who are users of a copyrighted work which is in a particular class of works, if such persons are, or are likely to be adversely affected by virtue of such prohibition in their ability to make non infringing uses of that particular class of works under this title'*⁵⁷.

On October 27, 2000, the Librarian of Congress, on the recommendation of the Register of Copyrights, announced the classes of works subject to the exemption from the prohibition on circumvention

of technological measures that control access to copyrighted works. The two classes of works are⁵⁸:

Compilations consisting of lists of websites blocked by filtering software applications;

Literary works, including computer programs and databases, protected by access control mechanisms that fail to permit access because of malfunction damage or obsolescence.

Such 'class of works' which should be exempted, the relevant section of the DMCA⁵⁹ was not to be brought into force until October 28 2000.

However, the Librarian had difficulty with this proposal. The first problem was because the exemption was sought in respect of certain *classes of users*. This was beyond the scope of the Librarian's task which was to determine whether to exempt any *particular class of works*, and not to consider the use to which the work was to be put⁶⁰. Secondly, those who argued for the exemption were unable to demonstrate that they had been unable to engage in such uses because of access control measures. The concerns related to use of a work once accessed, rather than to failure to obtain access. In other words, the technological controls that prevent access to the underlying works did not thereby prevent non-infringing uses.

In relation to the second main fear, that access controls would result in a 'pay-per-view' business model, the Librarian pointed out that debate had failed to show any hard evidence of the model in operation. There were merely 'speculative' fears. Consumers given the choice to pay nominal amount in turn may make access to the work more widely available, thus enhancing use.

The EUCD

Influenced by the vociferous debate which had surfaced in the US as a result of the adoption of a

⁵⁵ *ibid*

⁵⁶ Bert Hugenholtz, Why the Copyright Directive is Unimportant, and Possibly Invalid. Published in [2000] EIPR 11, p. 501-502
<http://www.ivir.nl/publications/hughholtz/opinion-EIPR.html> (visited 10 August 2006)

⁵⁷ H. Rept. 105-551 (Part II), Report of House Commerce Committee on H.R. 2281, the Digital Millennium Copyright Act (July 22, 1998)
http://www.hrrc.org/current/include/pdf/HRept_105-551_pt_2.pdf (visited 10 August 2006)

⁵⁸ Federal Register Vol. 65 No 209 Friday October 27 2000/Rules and Regulations 37 CFR Part 201 Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies; Final Rule
<http://www.loc.gov/copyright/1201/anticirc.html> (visited 10 August 2006)

⁵⁹ DMCA section 1201(a)(1)(A)
<http://www.copyright.gov/title17/92chap12.html#1201> (visited 10 August 2006)

⁶⁰ Arnold P. Lutzker, *What the digital millennium Copyright Act and the Copyright term extension act mean for the library community*
<http://www.arl.org/info/frn/copy/primer.html> (visited 10 August 2006)

strong standard of protection against circumvention in the DMCA, the EU has certain rather complicated provisions relating to exemptions to the rule against circumvention. However, these measures do not extend to *access* controls, but implicate activities that may thereafter take place. Directive Article 5, contained a series of mostly permissive measures aimed at harmonising the limitations and exceptions to the reproduction right⁶¹, and the rights of communication to the public and making available to the public⁶². This range from limitations where the use is for the:

*'sole purpose of illustration for teaching or scientific research'*⁶³, to *'use of political speeches as well as extracts of public lectures or similar works or subject matter to the extent justified by the informatory purpose'*⁶⁴.

Article 6.4 of the Directive aims at facilitating the exercise of some of the limitations to be found in Article 5, while at the same time upholding the integrity of ECMS.

Paragraph 1 of Article 6.4, refers to the obligation on Member States to provide legal protection against the circumvention of any effective technological measures.

A beneficiary of protection would appear to refer to a third party who wishes to exercise one of the limitations specified. Concentrating on Article 5.3, the limitations referred to are those for the illustration for teaching or scientific research⁶⁵, for the benefit of people with a disability⁶⁶, and for the purposes of public security and parliamentary or judicial proceedings⁶⁷. It seems that those who are entitled (wish) to exercise a limitation for the purposes of *inter alia* illustration for teaching or research, must be able to do so. However, before being assisted in exercising such a limitation, the beneficiary of protection must have *legal access* to the protected work. So it seems that the help given in respect of exercising the limitation refers to overcoming controls which would prevent a use being made of the work for the purposes of illustration for teaching or research, for instance if the cut and paste functions, or the print command were disabled. The help is *not* to be given in respect of overcoming the access control. Therefore, the situation under the Directive appears to be the same as that found under the DMCA, as far as the prohibition against circumventing control

and the protection of the access those controls is concerned.

In regard to 'pay-per-use', the Directive appears to anticipate that this business model may be a reality. None of the limitations in Article 5.3 specifically state their exercise is conditioned on payment, but the copyright owner could condition access on such payment.

If any other Member State chooses to implement any of the limitations found in Article 5, they may do so subject to the requirement that a fare be paid for each use⁶⁸.

Comparison

The US and the EU appear to have adopted similar standards with regard to the questions of access and 'pay-per-view' business models. The US has made it clear that circumvention of access controls is outlawed under the DMCA. While the EU appears to be making an attempt to allow for circumvention of controls, these only apply once lawful access has been gained to the work. The US appears to accept that the 'pay-per-view' business model which may become a reality, but prefer to leave it to market forces to solve the problem, if indeed there is a problem. The EU has recognized that this model may have undesirable implications, but in so doing has done little more than to make suggestions that in certain circumstances a charge should not be levied for access. It would appear that access to the public domain, and the price of that access, will be dictated by market forces⁶⁹.

7. Conclusion

Hence the US and the EU appear to have adopted similar standards with regard to the questions of access and 'pay-per-view' business models. The US has made it clear that circumvention of access controls is outlawed under the DMCA. While the EU appears to be making an attempt to allow for circumvention of controls, these only apply once lawful access has been gained to the work. In US

⁶⁸ Recital 24 art of the Directive states that: *'Member States may provide for fair compensation for right holders also when applying the optional provisions on exceptions which do not require such compensation'*.

http://216.239.39.100/search?q=cache:jE_c0CxLjAJ:www.legalwks.com/conferences/handouts/ecomlaw/Copyright_Directive.doc+Recital+24ter+&hl=en&ie=UTF-8

⁶⁹ Edwards, L. and Waelde, C. (2000) *Law and the Internet: Regulating Cyberspace*, Oxford: Hart Publishing,

<<http://www.law.ed.ac.uk/internet.htm>> and also see article published on 28 Feb <http://elj.warwick.ac.uk/jilt/01-1/waelde.html> 2001 (visited 10 August 2006)

⁶¹ The EUCD Directive Article 2, also see supra 56

⁶² *Ibid* Article 3.

⁶³ *Ibid* Article 5.3(a).

⁶⁴ *Ibid* Article 5.3(f).

⁶⁵ *Ibid* Article 5.3(a).

⁶⁶ *Ibid* Article 5.3(b).

⁶⁷ *Ibid* Article 5.3(e).

and EU both, it appears, that access to the public domain, and the price of that access, is left to the dictate of market forces⁷⁰.

Intellectual Property Protection has never been the subject of as much controversy as in the recent past. Ten years after passage; the DMCA continues to be a controversial act with far-reaching impact that is supporting the attempts of copyright holders to control access to and downstream use of their content⁷¹. It is alleged that the doctrine of "fair use" has never been jeopardized so much as it is now,⁷² even scientific study and research holds no water under fair use defense⁷³. The courts have so far interpreted this law that fair use is not a defense as demonstrated in the case of *Felten v. RIAA*⁷⁴, hence the academic freedom is also supposed to be in peril. The doubts and uncertainties are shrouding in the mind of many users of the member state that if the EU directive is applied in law without changes, in Europe may face own versions of Dmitri Sklyarov's⁷⁵ prosecution. There are fears that such measures may deny access to all except those who are willing to pay and on such terms and conditions as may be imposed by

the copyright owners unilaterally. Indeed, technology protection measures used in conjunction with contracts, typically in standard and non-negotiable form, or together with ECMS to control access as well as impose other terms and conditions, may result in enabling right-holders to exert a greater degree of control over their works than is statutorily permitted. It may even have the effect of expanding the scope of the rights controlled by the copyright owner and modifying or overriding the legitimate use or access to works as provided by the law. The balance sought to be struck by copyright law may be overtaken by private arrangements between sellers and consumers, to the prejudice of the latter. This may have a tremendous impact on access to information which, in the age of information and the knowledge economy, is so vital.

Where as other views are those who are advocating for stern technological measures, protecting access controls surrounding copyright works with motive to defend the Europe's competitiveness and its cultural diversity and dynamism⁷⁶.

It is becoming apparent that the digital era is advantageous for copyright owners for the time being at least⁷⁷. To what extent, users are losing is not yet clear. The existing exceptions and limitations to the rights should have to be reassessed by making empirical research in the light of the new electronic environment⁷⁸ (access control measures) and if it is found unfairly tilted then need to be fairly balanced. A fair balance of rights and interests between the different categories of right holders, as well as between the different categories of right holders and users of protected subject-matter must be safeguarded.

In the light of the new electronic environment the existing exceptions and limitations to the rights should have to be reassessed.

- (a) To what impact access controls have on the ability to engage in fair use;
- (d) To what extent circumvention of access controls affect the market for, and value of, works protected by copyright.

⁷⁰ Edwards, L. and Waelde, C. (2000) *Law and the Internet: Regulating Cyberspace*, Oxford: Hart Publishing, p 154

⁷¹ American Library Association. Copyright Statement http://www.ala.org/Content/NavigationMenu/Our_Association/Offices/ALA_Washington/Issues2/Copyright1/DMCA_The_Digital_Millennium_Copyright_Act/DMCA_The_Digital_Millennium_Copyright_Act.htm

⁷² "Thus conduct protected as fair use under other provisions of copyright law might be actionable under the DMCA." according to Jessica Litman, professor of IP law at Wayne State University Law School and author of the book "Digital Copyright." see at Law.Com

<http://www.law.com/jsp/article.jsp?id=1044059435217> (visited 10 August 2006)

⁷³ "DMCA limits access to and does not provide opportunity to study security systems, stifling scientific progress." Declaration of Bruce Schneier, IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF NEW JERSEY in *Felten v. RIAA* (Aug. 13, 2001) at

http://www.eff.org/IP/DMCA/Felten_v_RIAA/20010813_schneier_decl.html (visited 10 August 2006)

⁷⁴ According to Edward Felten, associate professor of computer science at Princeton University. "If the plaintiffs win, "many, or even all, makers of interoperable products will be at risk, and end users will lose even more control over their technological devices." See at

<http://www.law.com/jsp/article.jsp?id=1044059435217>

⁷⁵ A Russian scholar went to the United States to present a paper on cryptography. He was arrested, because the paper described how to read certain kinds of electronic book see at <http://ukcdr.org/>

⁷⁶ EU Internal Market Commissioner Frits Bolkestein, Press release, commission press room, DN: IP/03/144 dated 30th Jan 2003 see at http://www.europa.eu.int/rapid/start/cgi/guesten.ksh?p_action.gettxt=gt&doc=IP/03/144/01RAPID&lg=EN&displ=ay (visited 22 Sept. 2006)

⁷⁷ *Supra* note 73

⁷⁸ Joint Information System Committee, Legal Information service at http://www.jisc.ac.uk/legal/index.cfm?name=lis_news & <http://www.cilip.org.uk/committees/laca/laca4.html> (visited 22 Sept. 2006)

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