

**WHAT IS DIGITAL RIGHT MANAGEMENT'S ROLE IN
MODERN EDUCATION SYSTEM'S PLAY?
—A COMPARATIVE RESEARCH OF DRM SYSTEM'S
INFLUENCE IN EDUCATION WORLD**

Cong Xu*

Abstract :

The unbelievable speed of technology development initiated a massive scale fancy of technical innovations after the pioneering industrial revolution. It is the very first time people recognized that the positive sectors of new technology benefit their life and at the same time, however, its disadvantages had brought a controversial debate with respect to the interest balance which asked for scholars and legislators' attention as well. Digital right management (DRM), as a kind of technical tool which protects and manages intellectual property information and material during the process of creation, communication, distribution and exploitation of the digital content, is posing an immense influence especially on physical copyright regime and traditional scrupulous balancing of interest between authors and the general public. The situation that the general public explore copyright materials happened in digital environment seems much knotty to deal with than that in physical world.

DRM scheme strictly controls the public's access to and further use of digital content as a result that right holders are able to overstep the boundary of their specific right which is protected by copyright. Lacking of standardization is acknowledged by scholars and professional insiders as

* Cong Xu, Ph.D Research Fellow, Erasmus Mundus Joint International Doctoral Degree in Law, Science and Technology (LAST-JD), University of Bologna, Mykolos Romeris University and Renmin University, IP Academy (China).

the crucial problems nowadays nagged by DRM technologies and the matter to be solved promptly by DRM software designers and legislators. Previous researches have explored the relationship between DRM technology and the general public's access to the copyrighted works and other information knowledge in digital environment as well as the current legal dilemma encountered by various countries' legislation, but little attention has been paid to the part of DRM technology or technological protection measure which is DRM's main element in worldwide modern education development.

This paper aims to clarify erroneous remarks about DRM scheme in the context of digital educational environment based on literature analysis and comparative research adopted. The objective of the paper is to state the deficiencies about the present practices on balancing the relationship between the copyright holders' benefit and the public' demand of information. As the influence from digital technology on copyright system has not completely revealed and copyright system itself has not yet fully responded to these impact, either. The existing situation that unbalanced interest under educational system and chaotic applicability of copyright provisions is treated the requisite stage towards a perfect copyright world. These findings highlight the potential attention of educational access to digital copyrighted works in spite of DRM's excessive obstructing.

Key words: Digital Right Management, Educational Access to Copyrighted Works, Balance of Interest, Technological Protection Measures

INTRODUCTION: GENERAL OVERVIEW OF DIGITAL RIGHT MANAGEMENT

Digital Right Management regime is generally accepted as the technology-focused scheme, which has connected the traditional copyright law with innovated digital circumstances. In this respect Digital Right Management system should be regarded as a platform created for the way that how digital content or works used and shared.¹ Digital Right Management system has operated in our daily life interaction under digital environment that is relying on combination the technologies used to distribute copyrighted works and legal rules to prohibit certain interactions and capabilities, and to impose liabilities for vanquishing the corresponding protection.² It is not a temporary but a continual norm of protection that protects authorised digital works and manages specific copyright at all times, wherever the works' geographical position and whoever owns the proprietorship.³ Technically speaking, the main elements of Digital Right Management system have been elaborated into various subdivisions which in general include encryption system, a surveillance mechanism, databases of digital works, and technological protection measures as well, etc.⁴

Making use of Digital Right Management achieves the transformation of information, once a non-excludable public good, into an excludable commodity.⁵ Digital Right Management system operates in much the same way as the digital paling,⁶ which functions no more than as a blocking tool to defeat non-prescribed access to digital copyrighted works in cyber world. Digital Right Management is the unquestionable outcome of technologies which stride over the traditional physical copyright times. Based on porous technologies, the function of Digital Right Management system has been nothing like the right holders' imaginative intention since its birth. Inherent defects of technologies embedded in Digital Right Management system are bound to its fate that is surmountable by updated technological reformation. Both legal regulation aspect and

¹ Stefan Bechtold, The Present and Future of Digital Right Management—Musings on Emerging Legal Problems, in digital rights management—technological, economic, legal and political aspects, available at:

<http://www.emeraldinsight.com/journal.htm?articleid=1593813&show=pdf>. And also Eberhard Becker, Willms Buhse, Dirk Günnewig, Niels Rump (eds.). (2003), Digital Rights Management – Technological, Economic, Legal and Political Aspects, Springer, Berlin, pp. 597-654.

² Krzysztof Bebenek. (2011). Consumer Expectations and the DMCA Anticircumvention Regime. Berkeley Technology Law Journal (26), pp.1457.

³ Tabrez Ahmad, Ruhi Chanda. Fair Use and Digital Rights Management in the Light of U.S. Laws, available at: <http://ssrn.com/abstract=1839350>.

⁴ Ibid. pp.4.

⁵ Niva Elkin-Koren. (2007). Making Room for Consumers under the DMCA., available at: <http://ssrn.com/abstract=1024566>.

⁶ Ibid. pp.1.

technical elements inextricably have to be taken into account under Digital Right Management system, as it is a complicated regime containing technology design and legal assistance.

After all, the development of Digital Right Management system is founded largely to meet the need of digital copyright protection, and moreover, it initiates a series of knotty problems which seem more formidable than that in physical copyright world. All those regulations which are involved therewith rather than be as the panaceas for adjusting unbalanced interest in current dilemma situation in right holders' eyes actually fail to reflect the public's expectation. In other words, Digital Right Management system poses threat and burdens on present balance of interest between the creators and the general public, or even to slightly overturn nowadays traditional balanced interest of the two parties above under physical copyright protection system.

HOW DIGITAL RIGHT MANAGEMENT GOT HERE IN EDUCATION WORLD

As technologies' neutrality essence is catholically accepted, the technical design contained in Digital Right Management system will be incompetent to impact harmfully on current and potential end-users substantially. Granted, in this respect, it is a serial of legal provisions or regulations with regard to Digital Right Management rather than technologies embedded in Digital Right Management that pose influence to the end-users, especially concerning those who exploited educational resources. Behind the rhetoric about the glorious legal system of Digital Right Management regime, the impetus for the clarification is the increasing query from the general public and relevant scholars in this area.⁷ A great many countries which passed legal provisions upon Digital Right Management system are basically in order to implement their obligation under international treaties or conventions.⁸ They are ludicrously ignorant of the legislation necessity of internal demand on Digital Right Management system, such as economic interest or social welfare.⁹ For these Digital Right Management provisions in different nations are not the mandatory obligations under international treaties. Moreover, arguably, another

⁷ Emir Aly Crowne-Mohammed, Yonatan Rozenszajn. (2009). DRM Roll Please: Is Digital Right Management Legislation Unconstitutional in Canada?, *Journal of Information, Law & Technology*, (2), available at: http://go.warwick.ac.uk/jilt/2009_2/cmfr.

⁸ On the international horizon, the World Copyright Treaty (WCT) and World Performance and Phonogram Treaty (WPPT) under World Intellectual Property Organization (WIPO) structure both contain the similar and general principles to ban circumvention behaviour of technology protection measures. As the members of these treaties, signatories may choose these relevant Digital Right Management regulations to be involved in their domestic legislation as the legal articles.

⁹ Arul George Scaria. (2012). Does India Need Digital Rights Management Provisions or Better Digital Business Management Strategies?., *Journal of Intellectual Property Rights*, Vol.17, , pp.467.

prevalent critique against Digital Right Management regulations probably is that these provisions unconsciously structure a novel para-copyright scheme that diverges the traditional protection far beyond from copyright law boundaries.¹⁰

There existed multiple ways of access-control for digital copyright protection previously in distance education world. Many of them are used to mainly protect the products distributed by the software developers. For example, the users have to first obtain the poll codes or serial number for subsequent use before they install particular software package. Or the developers append specific cipher for the users to access the media or multi-media files via compressed software package from the third party. As the traditional means for securing digital works, these approaches more or less showed faulty according to the long-term practices as follows:

- (1) Un-safety: Poll codes and ciphers may be widely reproduced and disseminated, or even cracked by forced forcible technology;
- (2) Non-flexibility: Internet content providers have to offer different paying models according to various users base, like pay-per-view, monthly payment and for free etc.
- (3) Inconvenience: Users usually feel displeased when getting complicated authentication, which one side impedes the non-authorized users and the other side actually causes subtle influence on authorized users as well.
- (4) Interoperability Deficiency: Problems on combination with other hardware and software. Internet content providers in general need to track to the authorised users for management, which hardly achieve users' expectation that they cannot access these media files on other physical mediums except one fixed platform after they have got the authorised permission, like portable player.

The stalemate encountered with previous digital certificate system to protect copyrighted works imposes burdensome pressure then when Digital Right Management system emerges as the times require. Almost of the diverse kind of Digital Right Management technologies operates as

¹⁰ Ibid. pp.472.

lockbox to prohibit the employ act without permission. Any use of digital content needs partaking of certain software or hardware.¹¹

DIGITAL RIGHT MANAGEMENT LEGISLATION: TECHNOLOGICAL PROTECTION MEASURES AND ANTI-CIRCUMVENTION RULES

The comprehensive digital right management system includes multiple elements such as licence, technology and law. Prof. Stefan Bechtold deemed that “Digital Right Management systems are not only technological phenomena: they pose complex legal, business, organizational and economic problems”.¹² Although Digital Right Management system is able to provide high-level technology security protection, however, there is no absolutely or totally a very system for good and all.

The only fate which technology system has been combating with is cracked by much more advanced technology along with specific research time draws near based on the complexity. More significantly, digital content and authorised works secured by technology system would be spread once their technology shield had been destroyed or wrecked, which also brought about irreversible impact and losses to copyright owners. Considering the inherently risky result, scholars in copyright law area insist that protecting digital copyrighted works through technological approach proves entirely futile.¹³ Therefore, the right holders had started their journey seeking for a new tool for intensive copyright protection in digital era besides combined protection of licences and technology, which presented us the arrival of anti-circumvention rules thereupon.

Technological Protection Measures contained in Digital Right Management system should be regarded as the dominated factor that induces the problems that education world needs to deal with. In order to enhance the safety of Digital Right Management system as an entirety, new technological measures legislations motivated by copyright industry development were passed,

¹¹ Edward W. Felten. (2004). A Skeptical View of DRM and Fair Use, Communications of The ACM, No.4, Vol.46, April, pp.57.

¹² Stefan Bechtold. (2001). From Copyright to Information Law—Implications of Digital Rights Management, available at: http://www.ip.ethz.ch/people/bechtold/publications/2002_DRM.pdf, Digital Rights Management Workshop.

¹³ Cory Doctorow. (2004). Microsoft Research DRM Talk, available at: <http://www.authorama.com/microsoft-research-drm-talk-1.html>.

which stated these acts (so-called “preparatory activities”¹⁴) that circumvent technological protection measures and produce or sale the devices that can be used as circumvention means for technological protection measures provided by copyright owners are illegal. Technological protection measure is regarded as a kind of “private remedy” tool, which emerges for the sake of stopping massive internet piracy to maintain their interest since the advent of new technology times. In addition, the existing of anti-circumvention legislations in disguise confirms the lawful position of this so-called “private remedy” from copyright owners. In this respect, anti-circumvention legislations normally is seemed as part of copyright law system nowadays, which sounds ridiculous since the essence of protection provided by anti-circumvention legislations for technological measures or digital right management entirely alien from the protection of exclusive rights under copyright law system.

In 1998, the American Congress passed the Digital Millennium Copyright Act (DMCA), which includes relevant technology protection measures provisions. Reading DMCA, we could firstly find it designed the technology protection measures from two different but parallel points. One of them is “access control” rules which control the general public’s access to the copyrighted works and the other one is “use control” regulation to “secure the right owners’ copyright”. Another important aspect in DMCA is about the partition from “direct circumvention acts” to “preparatory activities”¹⁵ In E.U, technological protection measures legislations were established through passing multi-directives related to copyright law.¹⁶ The most important technological protection measures legislation is the Copyright Directive in 2001 (The E.U Directive).¹⁷ Article 6(1) of this Directive forbids acts against the circumvention of any effective technological measures Article 6(2) prohibits “import, distribution, sale, rental, advertisement for sale or rental, or possession for commercial purposes of devices, products or components or the provision of services” or devices “have only a limited commercially significant purpose or use other than to

¹⁴ Ibid, pp.216.

¹⁵ Wang Dongjun.(2011). Studies on Problems of Legal Restrictions on Digital Rights Management, Ph.D Dissertation, China National Knowledge Infrastructure (CNKI) as internet resource for database..

¹⁶ Council Directive of 14 May 1991 on the legal protection of computer programs (91/250/EEC); Directive 98/84/EC of the European Parliament and of the Council of 20 November 1998 on the legal protection of services based on, or consisting of, conditional access; 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.

¹⁷ 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.

circumvent” or “are primarily designed, produced, adapted or performed for the purpose of enabling or facilitating the circumvention of”.

No matter what the domestic opinion or decision developing countries take on Digital Right Management legislation realistically¹⁸, or the gingerly attitude some developed nations make,¹⁹ these legislations have already showed the interest bias on the interest conflict between the right holders of digital copyrighted works and the general public.

FAIR USE (FAIR DEALING) PRINCIPLE: FAMOUS “THREE-STEP TEST”²⁰

As the famous Latin saying of Law goes like that: Ubi jus, ibi remedium (“Where [there is] a right, there [is] a remedy”), as a law, however, It is sometimes said that the purpose of both the US fair use doctrine and the UK fair dealing list of permitted acts is to strike a fair balance between right holders and users. With respect the definition of “fair use” or “fair dealing”, it refers to situations in which the exclusive rights granted to authors, or their assignees under copyright law do not apply.

Back to delving deeply into the legislative intent of copyright law system, we may obviously acquire its essence which the legislators expected at original legislation. Copyright law generally aims to realize the balanced interest between the right holders and the general public, which stimulates the authors to produce more creative works and spreads the information and knowledge in the society. Multiple endeavours have been devoted on copyright law to achieve the goal that offers the incentives for the right holders to bring more works to the public and providing access for the public to those authorised works.²¹ Limitation and exception under copyright law system as the effective means to balance the interest in copyright owners’ mind have played the role in nowadays. No matter fair dealing principle, fair use rules, or even general limitation and exception doctrines in various countries, the basic bottom line of those provisions have never and ever changed, which was stated like that long ago,

¹⁸ Ibid.9.

¹⁹ Ibid.7.

²⁰ Cong Xu. (2010). Is It Digital Right Management the Panacea for Digital Copyrights Issues?. Dissertation of LL.M programme (Intellectual Property Direction) in University of Leeds, U.K.

²¹ Stefan Bechtold.(2004). Digital Rights Management in the United States and Europe. American Journal of Comparative Law, 52(2) pp.359-363.

*“Fair dealing”, just as its name implies, the dealing must be fair for the aim laid down by the Act, and not for some other purpose.*²²

In continental-law family jurisdictions, according to specific cases, domestic copyright laws provide particular limitations and exceptions.²³ While common law jurisdictions follow the fair dealing or the fair use provision, which are based on such similar exceptions that have gradually been matured relying case law.²⁴ The law on copyright allows restrictions and limitations, which was formulated by granting the related right to the author concerning the copyright. Some commentators prefer to treat "limitations and exceptions" as "user rights"; however that is, rather than cutting out or amending some idealized styles of copyright, user rights provide an fundamental balance to the rights of copyright owners.²⁵

It was the very first time that “three—step test” appeared in the “Berne Convention”, and subsequently was absorbed by the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs) and the WIPO Copyright Treaty (WCT), WIPO Performances and Phonograms Treaty (WPPT). “Three-step test” is the measure established in copyright convention to determine the general principles of fair use. This principle has gone through a process of constant development. “Berne Convention” article 9 (2) provides members of the Berne Union that:

“It shall be a matter for legislation in the countries of the Union to permit the reproduction of such works in certain special cases, provided that such reproduction does not conflict with a normal exploitation of the work and does not unreasonably prejudice the legitimate interests of the author.”

The first step requires that limitations should be confined to certain special cases; For the sake of increase more flexibility to the three-step test, some have suggested that the second step deserves a different reference point. “A limitation only conflicts with normal exploitation of a copyrighted

²² Beloff v. Pressdram Ltd, [1973] RPC 765 at 786.

²³ See, for instance, Part 1, Section 6, §§ 44a et seq. of the German Copyright Act, providing detailed limitations and exceptions of copyright in clearly defined areas.

²⁴ Ibid. 17.

²⁵ Ibid. pp.7

work if it substantially impairs the *overall commercialization* of that work by divesting the authors of a major source of income.”²⁶ The third step, as an adjusting tool, serves to secure the reasonableness of the involved prejudice, which means reasonable remuneration should be made in view of the rationale behind the limitation to the considerations of the second step.²⁷

THE IMPACT ON EDUCATION SYSTEM FROM DIGITAL RIGHT MANAGEMENT

Digital Right Management regime provides a solid technological structure for distribution of digital works that offers stricter control over digital content than traditional copyright law does. Digital Right Management makes a possibility that the right holders are able to implement the restriction on access to the digital content permanently through technological measures.

Referring to the impact that Digital Right Management poses on educational access to digital copyrighted works, the scrupulous acquaintances have to be obtained about the background and Digital Right Management emergence. The primary goal for running Digital Right Management technologies is acknowledged to prohibit the piracy in digital environment, which conforms to the main function of traditional copyright law. The other aspect that right holders employing Digital Right Management system is on account of economic interest. The development of copyright law under market directed economy has gradually united these two factors together. In other words, the anti-piracy purpose of Digital Right Management serves for right holder's economy benefit and to a certain extent, Digital Right Management technologies are treated as the means acting in their own self-interest.

Based on the original intention of digital copyright protection, many copyright holders incorporating Digital Right Management technologies not merely attempt to forbid piracy, yet bring more economic benefit, which right holders outrageously restrict end-users to access the digital content as a good excuse. Furthermore, right holders have been carried away by economic interest with ignoring the educational access and use of digital copyrighted works. In modern education world, strapped with conditional access by Digital Right Management technologies,

²⁶ Senftleben M., Criticizing the Quantitative approach adopted by the WTO panel copyright report with focus on reference point. available at: <http://tusicong.blogspot.com/logs/55263631.html>.

²⁷ Ibid 18.

the educators cannot fully access to any material they need. The right holders at times only provide the digital copyrighted works already in public domain or not useful educational resource in digital version to educators.

Another influence which Digital Right Management system imposes on education regime is that digital educational material cannot be interactively disseminated, especially in the environment where information technologies are widely used on modern education system. It is generally accepted that modern education's development more frequently relies on internet resource. It is beyond doubt the effect that Digital Right Management takes on the whole education scheme, especially distance education and E-learning area, will be surely fatal, if the educators are unable to gain the digital copyrighted material whenever and wherever possible for spreading that to the educational users in due course. The fundamental principle of traditional copyright law will be eroded in tragedy when right holders' merely pursue economic interest in digital atmosphere.

SOLUTION: COMBINATION OF LEGAL METHOD AND TECHNOLOGY

APPROACH

Rather than passively complying and struggling with the current Digital Right Management system rules under the predicament very before, which was entangled with limited range legal solution and restrictive technological means, the users, especially numerous educational users may gradually seek an improved way to accommodate their interaction with digital copyrighted resource. As the discussion showed above that Digital Right Management system has exerted itself much unruly influence in modern education world, and as a new player in the game of edbiz, the participation of Digital Right Management almost rewrites the rules of this game. Considering the dual aspects of effect imposed by the Digital Right Management system, the countermeasures to deal with these impacts still have to start from the two points.

Legal aspect

Even if we in general accepted and fully induced fair use doctrine into Digital Right Management interoperability system, we indeed cannot count on the focused-on technologies

under Digital Right Management system intelligent enough to distinguish the fair use by educational users from other clients' common access to copyrighted works.²⁸ What is required at this respect is improving or developing a regenerative "Fair Use" principle in digital atmosphere against nowadays rigid universal solution. In common law system, fair use doctrine under traditional copyright law is regarded as the defence to copyright infringement.

According to section 107 of American Copyright Act, there are four aspects that determine one conduct whether belongs to fair use of a work:

*"the purpose and character of the use, including whether such use is of a commercial nature or is for non-profit educational purposes; the nature of the copyrighted work; the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and the effect of the use upon the potential market for or value of the copyrighted work"*²⁹

Having passably successful experiences of the U.S copyright law in fair use area to go by in physical copyright circumstance, some scholars seem to find out a similar solution through ameliorating fair use doctrine in digital world,³⁰ although it is a bit deliberately vague.³¹ Fair use rules involved in cyber surroundings should be confined within the scope of "balancing interest" and much more flexible and compatible as well besides recalibration of "fairness" referring to those four factors aforesaid as fair use boundary looks like indefinitely knotty.³² Incidentally, however, what very pre-dominates the potential standard of fair use principle in cyberspace is concerning the last factor among those fours.

The low-cost distribution transaction of digital works online is an advantage of digital copyrighted works spreading, which in contrast also increases difficulty for judging the effect of the illegal use on the potential market or value of the digital copyrighted content. Consequently, renewed fair use doctrine in network space cannot carry out overly general minutiae after taking

²⁸ Ibid.18. pp.57.

²⁹ 17 U.S.C§107.

³⁰ Nicolo Zingales. .(2012). Digital Copyright, 'Fair Access' and the Problem of DRM Misuse. Boston College Intellectual Property & Technology Forum, available at: <http://www.bciprf.org>.

³¹ Lewis Hyde, Berkman Fellow. Educational Fair Use Project 'Freedom to Teach', Harvard University, Thomas Professor of Creative Writing, Kenyon College . Educational Fair Use Proposal, pp.4. Available at: http://cyber.law.harvard.edu/sites/cyber.law.harvard.edu/files/Fair_Use_Proposal_8-1-08.pdf.

³² Ibid 18.

account of this problem. Furthermore, even the expression directly connected with non-profit educational purpose states ambiguous, either, which once adopted by new fair use doctrine should be contentious.

In this respect, the best improvement so far on legal level asks for legislation department to articulate and specify tiny detailed expression when it passes relevant regulations with regard to fair use under digital environment. And then, a well-grounded and authorised fair use doctrine interpretation in cyber sphere ought to be granted by the courts when it becomes argumentative in legal action as the back-up plan. It is obvious that we design the legal rules on fair use regulation in network atmosphere are more inclined to start from the premise that we take the fair use rules under traditional American copyright law system so far as an example. Otherwise, it needs referring to its domestic legislation situation for sure.

Technologies approaches:

Comparing to legal solution scheme on how to incorporate effective fair use doctrine in digital context in order to harmonize Digital Right Management system and educational access to copyrighted content, the improvement of technologies respect appears much more intuitive in the general public's mind. No matter what the regulations in legal part are, the circumstance where Digital Right Management system interoperability eventually has dealing with the end users directly via technologies improvement in practice rather than legal regulations, in which the legal rules on fair use principle are more than a kind of protection shield, but a way of remedy as well. At the same time, innovative technologies design, which are treated as the other crucial factor to be reckoned with in the impact posed by Digital Right Management in education world, are able to coordinate with legal assistance.

Right Expression Language (hereafter, REL) is at present regarded as the most effective way to handle the deficiencies of current technology devices contained in Digital Right Management when encountering with educational use of digital copyrighted works. The REL should be renewed based on the previous structure of basic REL, which can express a bundle of specific

rights in particular circumstance under Digital Right Management system through using digital material.

One thing about the innovated REL has to be clarified is that some components contained inside should constitute a symmetric system including semantic language that is capable to integrate the benefit of authors, right holders and the general public.³³ The distinct feature of the new REL is able to translate into the codified expression language according to the purpose and the nature of using copyrighted works as well for the sake of a balanced regime.³⁴ However, there exists at least one claim that no matter how improved the technology it is, the immanent and uncertain nature of fair use situations in network context is hardly bound to a systematic regime that can take over the mental judgement role of human beings. Actually, the controversial statement about REL real function is exactly the channel for improving the language. New elements embedded in reformative REL will be capable to integrate the legal aspect and technological innovation factor, which means that REL can build its unique evaluation standards though codification the fair use doctrine in digital world referring judicial cases evaluations.³⁵ In this respect, codified digital fair use principles are flexible to apply in optimizing Digital Right Management system interoperability in education world.

Conclusion

Still lots of scholars insist the opinion that DRM is not a permanent makeshift to build a totally perfect system with respect to solving all problems in digital education context. DRM technology *per se* adopts encrypted techniques in order to contribute itself to restrict educational access to the copyrighted works freely.³⁶

No matter the American's DMCA or the E.U Directive, the regulations related to Digital Right Management legislations are out of crucial economic influence consideration. The common intention of the U.S and the E.U took attempted to pass their own legislations firstly and then to enforce the legislation model as far as possible, or at least asked other countries to keep

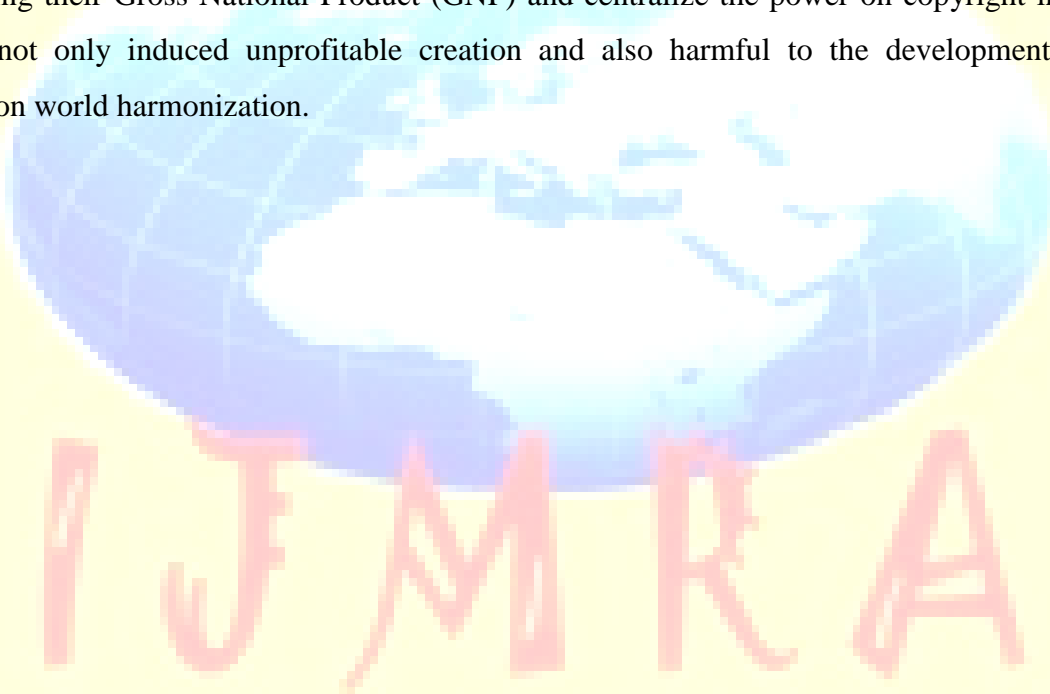
³³ Ibid. 27. pp.25.

³⁴ Ibid.1. pp604.

³⁵ Ibid.30.

³⁶ Benjamin J. Bates. (2006). Value and Digital Rights Management: A Social Economics Approach, for the 2006 annual convention Paper to be presented to the Communication Technology division, Association for Education in Journalism & Mass Communication, San Francisco, CA available at: <http://www.cci.utk.edu/files/aej2006-DRMSocEcon.pdf>.

unanimous with legislation logic which potentially encouraged to leave enough space for updated technology through copyright amendment, expand specific right of copyright owners and control each type of act to access the copyrighted works caused by innovative and valuable technology in digital copyright system. However, the fundamental aim of copyright protection is to ensure and promote intellectual works created and disseminated positively so as to benefit the general public from intellectual creation of authors. The purpose of copyright law should continue as it was since its establishment no matter within national scope or international range. The developed countries and the developing countries are closely related and mutually dependent, and in particular, economic benefit is bound up with each other. “Technological protection measures” in Digital Right Management system is developed countries’ gunboat diplomacy for increasing their Gross National Product (GNP) and centralize the power on copyright industry, which not only induced unprofitable creation and also harmful to the development of the education world harmonization.



REFERENCES

- [1] Stefan Bechtold, The Present and Future of Digital Right Management—Musings on Emerging Legal Problems, in digital rights management—technological, economic, legal and political aspects, available at: <http://www.emeraldinsight.com/journal.htm?articleid=1593813&show=pdf>. And also Eberhard Becker, Willms Buhse, [1] Dirk Günnewig, Niels Rump (eds.). (2003), Digital Rights Management – Technological, Economic, Legal and Political Aspects, Springer, Berlin, pp. 597-654.
- [2] Ztof Bebenek. (2011). Consumer Expectations and the DMCA Anticircumvention Regime. Berkeley Technology Law Journal (26), pp.1457.
- [3] Tabrez Ahmad, Ruhi Chanda. Fair Use and Digital Rights Management in the Light of U.S. Laws, available at: <http://ssrn.com/abstract=1839350>.
- [4] Niva Elkin-Koren. (2007) .Making Room for Consumers under the DMCA,. available at: <http://ssrn.com/abstract=1024566>.
- [5] Emir Aly Crowne-Mohammed, Yonatan Rozenszajn. (2009). DRM Roll Please: Is Digital Right Management Legislation Unconstitutional in Canada?, Journal of Informationa, Law & Technology, (2), available at: http://go.warwick.ac.uk/jilt/2009_2/cmr.
- [6] Arul George Scaria. (2012). Does Inda Need Digital Rights Management Provisions or Better Digital Bussiness Management Strategies? ., Journal of Intellectual Property Rights, Vol.17., pp.467.
- [7] Edward W. Felten. (2004). A Skeptical View of DRM and Fair Use, Communications of The ACM, No.4, Vol.46, April., pp.57.
- [8] Stefan Bechtold. (2001). From Copyright to Information Law—Implications of Digital Rights Management, available at: http://www.ip.ethz.ch/people/bechtold/publications/2002_DRM.pdf. Digital Rights Management Workshop.
- [9] Cory Doctorow. (2004). Microsoft Research DRM Talk, available at: <http://www.authorama.com/microsoft-research-drm-talk-1.html>.

- [10] Cong Xu. (2010). Is It Digital Right Management the Panacea for Digital Copyrights Issues?. Dissertation of LL.M programme (Intellectual Property Direction) in University of Leeds, U.K.
- [11] Stefan Bechtold.(2004). Digital Rights Management in the United States and Europe. American Journal of Comparative Law, 52(2) pp.359-363.
- [12] Beloff v. Pressdram Ltd, [1973] RPC 765 at 786.
- [13] German Copyright Act
- [14] Senftleben M., Criticizing the Quantitative approach adopted by the WTO panel copyright report with focus on reference point. available at: <http://tusicong.blogbus.com/logs/55263631.html>.
- [15] Nicolo Zingales. .(2012). Digital Copyright, 'Fair Access' and the Problem of DRM Misuse. Boston College Intellectual Property & Technology Forum, available at: <http://www.bciptf.org>.
- [16] Lewis Hyde, Berkman Fellow. Educational Fair Use Project 'Freedom to Teach'", Harvard University, Thomas Professor of Creative Writing, Kenyon College . Educational Fair Use Proposal, pp.4. Available at: http://cyber.law.harvard.edu/sites/cyber.law.harvard.edu/files/Fair_Use_Proposal_8-1-08.pdf.
- [17] U.S.Copyright Act
- [18] 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.
- [19] WIPO Performances and Phonograms Treaty (WPPT)
- [20] Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS)
- [21] WIPO Copyright Treaty (WCT)