New Era with Digital Right Management in Libraries

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Abstract – Digital rights management (DRM) is an important and inseparable feature of electronic resources and an increasingly important facet of collection development and library services. The present paper manifest the various types of DRM and how their functions is an essential element of modern librarians' toolkits, regardless of their role in their organizations. The author try to explain the DRM is a systematic approach to copyright protection for digital goods. Its purpose to prevent unauthorized redistribution of products and restrict the ways consumers can copy content they've acquired.

Keywords: Digital Right Management, Internet, Technologies, Copyright, Libraries, Digital Library, Open Source Software.

- X -

INTRODUCTION

New Era with the rapid development of the Internet and computer technology, digital content, including digital images, video and music can be distributed instantaneously. However, digital content in the digital world differs from objects in real world.

Today's world wide increasing amount of digital content that demands protection from theft and pricing eyes. Digital Rights Management is not a new concept and has held many names over the past several years. The last few years, people began to use the term "electronic right management" and later on "Digital Right Management". However, Digital rights management a system for protecting the copyrights of data circulated via the internet or other digital media by enabling secure distribution and or disabling illegal distribution of the data. In general, intellectual property protected by the Digital right management system by either converting the data so that making the content with a digital watermark or it can only be accessed by authorized users or it cannot be freely disseminated method. Technologies are aimed at growing the kinds and scope of control that rights holders can stress over their intellectual property. Digital right management restrictions are now backed up with the force of law. In essence, copyright owners now have the ability to write their own intellectual property regime in computer code, secure in knowledge that the DMCA will be back the regime with the force of law.

Earlier, DRM was intended for security and encryption of electronic documentsto protect these from unauthorized use to make its reach to limited user those who pay.

Concept of Digital Right Management and its Need:-

Digital Right Management concept is a referring to various access control technologies and these are used to check the usage of proprietary content, hardware and software. These technologies are control the use, modification, and dissemination of copyrighted works and execute these policies.

DRM used by the published software developers to curb the unauthorized usage of their digital material. Intellectual property Right as savior the acknowledged digital right management. It guarantees the protected digital supply system. Electronic copy right management systems (ECMS) also called Digital Right management. Regarding the information is this technology manages the right way.

Technologists and information scientists consider DRM as a tool which address the issues pertaining to –

1.   Digital Rights Enforcement (DRE) environment

2.   Digital Rights, and

3.   Standardization for interoperability.

Primary purpose of DRM is to control access, use and distribution and thereby protect the interests of

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copyright holders in the online environment. DRM systems are also referred to as Electronic Rights Management Systems (ERMS), Rights Management Information Systems (RMIS) and Copyright Management Systems (CMS). The impetus for DRM is found increases in telecommunications bandwidth and the concomitant increases in digital file transfer and copying over the internet. Abetting the effects of bandwidth are advances in compression algorithms which improve transmission times and facilitate the storage of high-fidelity content. Duplication of content has thus become easy, cheap and perfect.

Characteristics of Digital Right Management

These are certain characteristics of digital right management Right holder can control access and usage:

• Right-holder can change the access rights after dissemination

• Provides determined security.

• Virtual machine is at risk to attack.

• Right holder allows tracking usage and access.

• It can be allows for re-use of the digital container.

• DRM allowed to access offline data protected by

• Architecture allows for transfer of rights without third parties.

Digital Library Management Systems

Digital Rights Management refers to the technologies and processes that are applied to describe the digital content and to identify the user. Further it refers to the application and enforcement of usage rules in a secure manner. The concept of Digital library is proposed to capture an abstract of both physical and virtual components systems are consisting. The digital library system and the digital library management system capture real software systems, there is unique digital library system in operated by all digital library, which might cover any number of interconnected smaller digital library systems, where all digital library systems are based on a handful of digital library systems. Digital library provide conceptual benchmarks against which every system can be measured and compared and for which boundaries can be defined based on the specifics of individual digital libraries.

In developing countries like India, Libraries are gaining affordable access to the wealth of international academic journals and databases.

Libraries and information center provide access to the digital material through a variety of legal constructs, license agreement, expectations under national copyright law, legal deposit and the public domain. Digital right management possesses a hazard. Now the Material brought and paid for by the library has become inaccessible through technical declaration measures, while the suppliers has since gone out of business or it is not profitable for the vendor to correct the problem and the amount of money are too small for the Library. As an outcome the material is effectively removed from the library collection. Libraries have less right in the digital environment than in the print world. Instead libraries have to negotiate special agreements with individual right holders to obtain digital right management free material or permission to circumvent in restricted circumstances. There is no hesitation to say that wonderful impact on the libraries presently digital right management software are in its early stages and time is required for the development of complicated software. It is through that long run impact of the digital right management cannot be predicted today as the technology is in its prime stage.

DRM and Legal Background

The term digital rights describes the human rights that allow individuals to access, use, create and publish digital media to access and use computers, other electronic devices or communications networks. Right to internet access is recognized as a right by the laws of several countries. The legal context for DRM is copyright law. The United States of America (USA) copyright and the European Union (EU) Countries have their DRM system derived from World Intellectual Property Organization (WIPO) Copyright Treaty of 1996 (WCT). Most of the EU countries have private copying provisions in their copyright laws, which allow consumers to create copies of legitimately obtained content for their own use or that of family members. It is not surprising that in light of these developments many have expressed alarm that Digital right management technologies may be used by copyright owners to erode capabilities that had previously been permitted to the public by copyright law under the "fair use" doctrine.

Digital Right Management and Digital Libraries

Online information managing is a big hurdle which occurs in a wide range of different applications. Considering the reasons for implementing policies for access, it has observed that digital library managers often need to restrict access to parts of their collections for various reasons, including restrictions imposed by donors, concerns about privacy of obscenity, licensing, agreements and other agreements with copyright owners.

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In other way copy-right owners and with regards to e-resources publishers wish to manage access. Because, they need payment for use of materials, but the other issues check the spread of unapproved plagiaristic policies, framed by the managers, administrators of digital library plays a vital concept of any digital right management system. The creators, content, and consumers are the trinity of any digital library management system. Any policy framed by managers, administrators should not affect once their surveys functions, privacy and freedom of expression. This is based on the available technology which we are adopting in digital right management system.

DRM architecture widely used and accepted as the standards at present situation. This extracts are the high-level usage scenarios according to content consumers, producers and publishers. As fingerprinting technologies, Watermarking, Digital Signature technologies can be used to identify content by the process depicted in the diagram below.
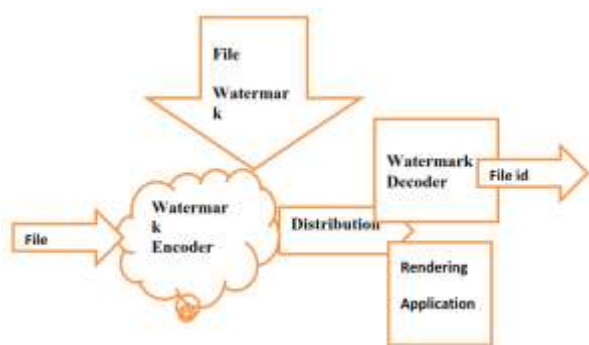
Watermarking is also often cited when discussing copyright protection technologies. A watermark is "embedded information." This information (often a file IP identifier) can be extracted by special software. This "watermarking detector" when typically, all files that are to be distributed are watermarked before they are allowed into the content chain. A functional flow diagram of this is shown in the above diagram.

Digital Right Management Functions

Libraries oppose users of digital right management that lock readers to specific e-book formats. Libraries and readers who lawfully acquire content should be able to read that content on any device. Libraries oppose Digital Right Management that is used to track specific individual readers behavior what they read, when they need and where they choose to read it. Libraries and readers need new technology that protects and expands access to e-books and other digital content. Libraries and readers need consistent standards and formats that enable rather than restrict, reading, across devices and technology platforms.

Digital Right Management and Search Tools

Many library users find online research tools difficult enough to use under ideal circumstances. Digital right management measures implemented by vendors of research databases often make the situation worse. Libraries often provide users with information discovery tools that cripple or disable standard behaviors of their computers. Some forms of digital right management, particularly for text resources ex-e-resources, use a range of restrictions that make common users like copying, pasting, and saving internationally difficulty to use. Like e-book vendors may discourage pricing too much text at once by forcing users to access the material in small chucks or disable standard content menus to prevent use of the clipboard copy failure. Digital right management that purposefully disables the behavior of standard functions confuses and discourages information seekers still further.

Digital right management makes solving many problems both legally and technically impossible ex-libraries have the right to circumvent digital right management for a work in order to evaluate whether cannot do so without the software tools to crack the workers digital right management protection. But the distribution of those tools is legal under.

At present the Digital right management a solidly entrenched aspect of a great deal of online digital content. Digital right management changes the fundamental relationship between the creators, publishers and users to the detriment of creators, users and the institutions that serve them. If digital right management is not carefully balanced, it limits the ability of libraries and schools to serve the information needs of their users and their communities in several ways. (American library association or ALA). The digital right management strategy is to modify user's perceptions of culture and technology to encourage them to adopt a passive attitude towards using information content. The users should be aware that the library does not impose digital right management restrictions on the content we offer, but that often we must agree to the restrictions in order to be able to provide online content at all.

Local control

It is especially when embedded in trusted computing systems which will be on the edge of computer technology for at least some time. These systems need strong security end-to end from the producer of the product to the end users. Libraries, now a days are in relation to online data bases and digital references resources, but the impact of this model should be expected to increase as the technology grows in difficulty and expense. Implications of this model range from the library's right to archive materials to issue of patron privacy.

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Contracts and user support

Libraries and Information Center could search themselves settle their user rights on a title by title basis. More reasonably, there will be works of classes with different sets of rights, and classes of users who can different rights for exercise. Some amount of time will be spent by library staff refereeing between the users and the rights packages, epically as users gain experience with the restrictions imposed by it. The user support overhead for libraries must be calculated into the cost of purchasing and managing these materials.

Archiving and future use

Mostly the digital materials are available on a term-limited licensing basis. Many titles are being offered for sale to libraries. Sale in this case meaning a permanent acquaints. Sale is what makes sense to libraries, who insist on the ability to purchase electronic materials even if they do not physically acquire the digital files. Digital right management itself does not make digital archiving impossible, but it does not compound the problem. But the librarians can have an impact on the development of digital right management technologies by participating in the discussions taking place in standards organizations and the research arena. It will affect the future of reading and information access.

Impacts of Digital Right Management on Libraries

There is no doubt that digital right management has the potential to have a tremendous impact on libraries and how they do their work. More sophisticated digital right management systems may allow libraries to provide additional services beyond lending, such as integrating digital library materials into course ware at educational institutions. But digital right management is likely to provide significant challenges as well especially in these areas such as local control, contract and supports etc.

Digital Right Management in Current Scenario

In the current scenario lacking of Digital right management common architecture supports the inter-operative and reuses the specific digital right management software technologies. This architectural lack is a serious down back in light of the rapid evolution of a complex domain like digital right management. It is unlikely that a single digital right management technology or standard will be able to support the variety of devices. In the wide variety of system essential to related in the field of security, flexibility and efficiency of users platforms and Media.

The Future of Digital Rights Management

The European commission is supporting the development of is especially when embedded in trusted computing systems which will be on the edge of computer technology for at least some time. These systems need strong security end-to-end from the producer of the product to the end users. Libraries, now a days are in relation to online data bases and digital references resources, but the impact of this model should be expected to increase as the technology grows in difficulty and expense. Implications of this model range from the library's right to archive materials to issue of patron privacy.

According to the commission, digital right management consists of technologies those identify and describe digital content protected by intellectual property rights. They can also facilitate legal copying and re-use of content by establishing a secure environment in which right-holders are remunerated for private copying, online content is paid for, and illegal copying is prevented. However, the commission is high level group on digital right management systems that presented a final report on 8 July 2004 which reflected a consensus on basic principles and recommendations for future actions in 3 areas-

1. Digital right management and interoperability open cross platform digital right management systems and standards are imperative and must be fostered.

2. Migration to legitimate services the abuse and unauthorized file sharing of copyrighted content must not be tolerated.

3. Consumers must be encouraged to use legitimate service.

CONCLUSION

DRM may adversely affect fair use practices, free speech of users and privacy. As Timothy (2006), rightly says 'recognizing and accommodating the heights of parties on both sides of the fair use equation, such an implementation might well be the first system of "digital rights management" truly worthy of the name'. The challenge for the society is to balance between internet threat and the DRM policy, and to perform. The delivery and consumption of digital content depends on satisfaction of both copyright holders and end-users. Each has different concerns, ranging from piracy to privacy. Copyright policy can ignore neither (Owens). So far copyright law was able to maintain some sort of balance between copyright holders and users, with the advent of DRM this balance may be tilted in favour of copyright owners.

The real motive behind digital right management technology is to increase profits for those who

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impose them. Their profit is a marginal issue when our freedom to read and learn is at stake. Despite for profit, though not wrong in itself, which cannot justify denying the public control over its technology and its libraries. Defending freedom means thwarting Digital right management. The demand for digital right management will continue to grow as content providers and organizations realize the value and need for protecting their intellectual property or the increase of the security and personal information. However, some of the laws and regulations are required and enforced, and protect digital right management systems are still going on. Digital right management may adversely affect fair use practices, free speech of user's and privacy.

As Timothy in 2006 rightly says, 'recognizing and accommodating the rights of parties on both sides of the fair use equation, such as implementation might well be the 1st system of "digital rights management" truly worthy the name'.

REFERENCES

1) Becker, Eberhard et.al. (2003), DRM as an interlocking challenge for different scientific disciplines: introduction. In Digital Right Management: technological, economic, legal and political aspects edited by Ederhard Becker and et.al., Berline: Springer, 2003. 1-15 p.

2) Bechtold, Stefan (2003), The present and future of digital right management: musings on emerging legal problems. In Digital Right Management: technological, economic, legal and political aspects edited by Ederhard Becker and et.al. Berline: Springer, 2003. 597-654 p.

3) Foley, Mary Jo (2003), Glaser: Open Source Is the Answer to the DRM Question, available at http://www.extremetech.com/ article2/ 0,3973,822282,00.asp

4) Hsiao, Jen-Hao., et.al. (2005), Constructing a wrapperbased DRM System for digital content pro   jection in digital libraries, Digital libraries: implementing strategies and sharing experiences, Fox, Edward A., et.al (ed.)Proceedings of 8th International Conference on Asian Digital Libraries

5) IITAC (2007), Digital Right Management: overview, available at https://www.iitac.org/ content/view/158/143/lang,en/ Martin, Mairead., et.al (2002).

6) Federated Digital Right Management: a proposed DRM solution for research and education D-Lib Magazine, 8(7/ 8), 2002,

7) Rosenblatt, Bill (2006), DRM, law and technology: an American perspective, Online Information Review, 31(1), 2007, 73-84 p.

8) Timothy, Armstrong K (2006), Digital Rights Management and the Process of Fair Use, Harvard Journal of law & Technology, Vol 20, Number 1 Fall 2006.

9) .WIPO (2003), WIPO Standing Committee on Copyright and Related Rights, Tenth Session Geneva, November 3 To 5, 2003.

10) American Library Association, (ALA 2003) Digital Right Management and Libraries, Congressional Internet Caucus program on Digital Rights Management Andrew B. the use of a digital rights management system in a document supply services. Interlarding and document supply 2004, 32(3):189-191p.

11) Arnab A. Digital right document- A current review, 2004; 4:10.

12) Bailey Cw. (2006) Strong copyright +DRM +weak Net neutrality Digital dystopia? Information technology and libraries 2006; 25.3:116-139. The use of a digital rights management system in a document supply service, interlarding and document supply 2004; 32(3):189-191.

13) Candela L. The digital library reference model', D3.2b Dl.org, project deliverable, April, 2011, 2-15p.

14) Choudhuri S.K. (2011) Digital right management. A Technological measure for copyright protection and its possible impacts on Libraries, 2011, 24p.

15) Coyle K. The technology of rights: Digital rights management based on a talk originally given at the library of congress, Nov, 2003, 19p.

16) Harinarayana N.S (2009), Digital Rights management In Digital Libraries: An Introduction to Technology, effects and the availability open source Tools, 7th international Caliber, 2009, 456p.

17) Lohman F. (2002), Fair use and digital right management: primary thoughts on (irreconcilable?) Tension between them, computers freedom and privacy, 2002, 2p.

18) Paney S. (2012). Changing Mechanisms in copyright ontology: Digital Rights Management, 2012, 5-6.

19) Senior A. An Informational resource from the digital content and libraries working

group of the American library Association, July 2012, 1p.

Web

1. Connect.ala.org.

2. http:// dl.org.

3. http://www. Wikipedia.org.

4. http:/ www.creative commons.org.

5. http:/www.cptec.org.

6. http://www.eff.org.

7. http;//www.iprsonline.og.

8. http://www.edri.org.

9. http://www.okfn.org.

10. http://webopedia.org

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