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## LIST OF CASES

- **Macmillan and Co. v K & J. Cooper,**
- **CCH Canadian Ltd v Law Society of Upper Canada**
- **the Government of West Bengal Nitya Gopal Basak, the Calcutta High Court**
- **. Hansal Mehta's Scam 1992 and Kookie Gulati's**
- **R.G. Anand v. M/S. Delux Films & Ors. (1978)**
- **Baker v. Selden (1879)**
- **U.K House of Lords decision in Designers Guild Ltd v. Russell Williams (Textiles) Ltd [2000**
- **UTV Software Communication Ltd v/s 1337x and ors on 10th April 2019- Delhi HC**
- **Eros International Media Ltd. v. Bharat Sanchar Nigam Ltd., suit no. 751/2016,**
- **Disney Enterprise v/s MI Ltd (2018) SGHC**
- **A&M Records, Inc. v. Napster, Inc**
- **Association of America v. Diamond Multimedia Sys., Inc**

- **Grokster v. Metro-Goldwyn-Mayer Studios Inc**
- **of Leopold Cafe Stores v. Novex Communications Pvt. Ltd**
- **UTV Software Communication Ltd v/s 1337x and ors case on 10th April**  
**2019-Delhi HC**

## ABBREVIATION

<b>AIR</b>	-	All India Reporter
<b>AACS</b>	-	Advanced Access Material System
<b>CA</b>	-	Certification Authority
<b>CBCID</b>	-	Crime Branch Crime Investigation Department
<b>CD</b>	-	Compact Disc
<b>CISAC</b>	-	International Confederation of Societies of Authors and Composers
<b>CMI</b>	-	Copyright Management Information
<b>CPU</b>	-	Central Processing Unite
<b>CSS</b>	-	Content Scramble technique
<b>DAA</b>	-	Digital Agenda Act
<b>DAB</b>	-	Digital video broadcasting project
<b>DAM</b>	-	Digital Asset Management
<b>DMCA</b>	-	Digital Millennium Copyright Act
<b>DOI</b>	-	Digital Object Identifiers
<b>DRM</b>	-	Digital Rights Management
<b>DVD</b>	-	Digital Versatile Disc
<b>ECMS</b>	-	Electronic Copyright Management Systems
<b>EU</b>	-	European Union
<b>EUCD</b>	-	European Union Copyright Directive
<b>HD</b>	-	High Definition
<b>IFRRO</b>	-	The International Federation of

<b>IPR</b>	-	Intellectual Property Rights
<b>IP</b>	-	Internet Protocol
<b>ISP</b>	-	Internet Service Provider
<b>MCSL</b>	-	The Model Communications Security Legislation
<b>P2P</b>	-	Peer to Peer
<b>PET</b>	-	Privacy Enhancing Technologies
<b>PVP</b>	-	Protected video path
<b>RAM</b>	-	Random-Access Memory
<b>REL</b>	-	Right Expression Language
<b>RMI</b>	-	Rights Management Information
<b>ROM</b>	-	Read Only Memory
<b>SACD</b>	-	Sociate des auteurs et compositeurs dramatiques
<b>SACEM</b>	-	Sociate des auteurs compositeurs et editeurs de musique
<b>SCMS</b>	-	Serial Copy Management System
<b>SGDL</b>	-	‘Sociate des gens de letters
<b>SOPA</b>	-	Stop Online Piracy Act
<b>SSS</b>	-	Software Service System
<b>TPM</b>	-	Technological protection measures
<b>TRIPS</b>	-	Trade Related Aspect of Intellectual Property Right
<b>U.K</b>	-	United Kingdome
<b>UNCTAD</b>	-	United Nation Conference on trade and development
<b>US</b>	-	United States
<b>USA</b>	-	United States of America

<b>USBC</b>	-	United States Business Council
<b>VPNs</b>	-	Virtual Private Network
<b>WCT</b>	-	WIPO Copyright Treaty
<b>WIPO</b>	-	World Intellectual Property Organisation
<b>WPPT</b>	-	WIPO Performances and Phonogram Treaty
<b>XML</b>	-	Right Expression Markup Language
<b>ODRL</b>	-	Open Digital Rights Language



## CONTENTS

CERTIFICATE.....	i
DECLARATION.....	ii
ACKNOWLEDGEMENT.....	iii
LIST OF CASES.....	iv
ABBREVIATION.....	vi

### CHAPTER-1

#### INTRODUCTION

1 INTRODUCTION.....	1-2
1.1 STATEMENT OF PROBLEM.....	2-4
1.2 SIGNIFICANCE OF RESEARCH.....	5-6
1.3 HYPOTHESIS.....	.6
1.4 OBJECTIVE.....	6-7
1.5 RESEARCH METHODOLOGY.....	7-8
1.6 REVIEW OF LITERATURE.....	8-9

### CHAPTER 2

#### COPYRIGHTS AND DIGITAL RIGHTS MANAGEMENT

2.1 OVERVIEW.....	10-11
2.2 COPYRIGHT AND INTELLECTUAL PROPERTY RIGHTS.....	11-13
2.3 COPYRIGHT AND CONTENTS OF COPYRIGHT.....	13-14
2.4 TERM OF COPYRIGHT PROTECTION.....	14-15
2.5 REGISTRATION OF COPYRIGHT WORK.....	15-17
2.6 NOVELTY AND ORIGINALITY.....	17-19

2.7 THE IDEA/ EXPRESSION DICHOTOMY.....	20
2.8 FIXATION OF WORK.....	21
2.9 REASONS BEHIND COPYRIGHT PROTECTION.....	21
2.10 COPYING.....	22
2.11 TECHNOLOGY PROTECTION MEASURES.....	22-23
2.12 HISTORY AND DEVELOPMENT OF DRM.....	22-28
2.13 DIGITAL RIGHTS MANAGEMENT.....	28
2.13.1 WHAT IS DIGITAL RIGHTS MANAGEMENT.....	28-29
2.13.2 HOW DRM WORK.....	229-30
2.13.4 DRM AND DAM.....	31
2.13.5 DIGITAL RIGHT MANAGEMENT DRM TECHNOLOGY.....	31
2.13.6 WHY DRM TECHNOLOGY USED.....	31-32
2.14 TYPES OF DRM TECHNOLOGY.....	32-35
2.15 SHORTCOMING OF DRM TECHNOLOGY.....	35-38
2.16 DRM AND LAW.....	38-39

### CHAPTER 3

#### INDIAN PERSPECTIVE AND COMPARATIVE STUDY

3.1 DRM AND LEGAL BACKGROUND.....	40-41
3.2 DRM – THE CONCEPT .....	41
3.2.1 DIFFERENCES BETWEEN RIGHTS MANAGEMENT AND CONTENT MANAGEMENT.....	41-42
3.3 WIPO INTERNET TREATIES AND PROTECTION OF DIGITAL RIGHTS MANAGEMENT.....	42-43

3.4. TECHNOLOGY PROTECTION. MEASURES.....	44-45
3.4.1 TREATY PROVISION ON TPMs.....	44
3.4.2 RIGHTS MANAGEMENT INFORMATION.....	44
3.4.3 TREATY PROVISION RMI.....	44-46
3.5 DIGITAL RIGHTS MANAGEMENT AND DOMESTIC LEGISLATIONS.....	47
3.6 DIGITAL RIGHTS MANAGEMENT AND INDIA.....	48-49
3.7 THE COPYRIGHT AMENDMENT ACT,2012.....	49
3.8 THE REASON BEHIND THE COPYRIGHT AMENDMENT ACT, 2012,.....	49-51
3.9 LAWS DIFFERENT COUNTRIES.....	51-53

## CHAPTER 4

### DIGITAL CHALLENGE TO COPYRIGHT

4.1 CHALLENGES FACED BY COPYRIGHT IN DIGITAL WORLD.....	53
4.2 COPYRIGHT AND INTERNET.....	54
4.3 INFRINGEMENT OF COPYRIGHT IN CYBERSPACE INCLUDES.....	54-56
4.4 SOCIAL MEDIA.....	56
4.5 FAIR DEALING IN DIGITAL ENVIRONMENT.....	56-57
4.6 REMEDIES AGAINST INFRINGEMENT OF COPYRIGHT IN DIGITAL DOMAIN.....	57-58
4.7 INTERNATIONAL TREATIES AND CONVENTIONS PROTECTING COPYRIGHT IN DIGITAL DOMAIN.....	58
4.8 WORLD COPYRIGHT TREATY 1996.....	58

4.9 WIPO PERFORMANCE OF PHONOGRAM TREATY 1996.....	58-59
4.10 COPYRIGHT IN DIGITAL ERA WITH SPECIAL REFERENCE TO INDIA.....	59-60
4.11 WHAT IS A ROGUE WEBSITE.....	60
4.12 WHETHER THE TEST FOR DETERMINING A ROUGE WEBSITE IS QUALITATIVE OR QUANTITATIVE.....	61
4.13 WHETHER THE DEFENDANTS' WEBSITE FALLS WITHIN THE CATEGORY OF 'ROGUE WEBSITE'?.....	61-62

## CHAPTER 5

### DRM: TRENDS AND ISSUES

5.1 DIGITAL RIGHTS MANAGEMENT THE FAIR USES.....	63-64
5.2 GLOBAL UNIVERSAL PRACTISE ON FAIR USE.....	64-67
5.3. FAIR USE IN THE DIGITAL ENVIRONMENT.....	66-69
5.4. FAIR USE PROVISION IN DMCA, INFORMATION DIRECTIVE AND INDIAN COPYRIGHT LAW.....	69-72
5.5. DRM AND COLLECTIVE MANAGEMENT OF COPYRIGHT.....	73-77
5.6. WHY COPYRIGHT MANAGEMENT SOCIETIES.....	77
5.7.1. COPYRIGHT SOCIETY IN INDIA.....	77
5.7.2. GOVERNING LAW.....	77
5.7.3. COPYRIGHT AMENDMENT ACT, 2012.....	78

5.7.4. TYPES OF COPYRIGHT SOCIETIES IN INDIA.....	78
5.7.5. CODE OF CONDUCT OF THE COPYRIGHT SOCIETIES.....	79
5.7.6. FUNCTIONS OF COPYRIGHT SOCIETY.....	79-80
5.8. WHY DIGITAL RIGHTS MANAGEMENT?.....	81-82
5.9. ISSUES OF PRIVACY ON DRM.....	83
5.9.1. PRIVACY INFRINGEMENT AND CONSUMER AS FIRST CLASS PARTICIPANT.....	84
5.9.2 EXISTING (RELEVANT) PRIVACY PROTECTION TECHNOLOGY.....	84-85
5.9.3. TECHNOLOGY FOR EXPRESSION.....,	86-89
CONCLUSION.....	91
BIBLIOGRAPHY .....	93



## **CHAPTER- I**

### **INTRODUCTION**

A subtype of intellectual property rights is copyrighted. Rights of one's creations as property are known as intellectual property rights. In other terms, "Copyright" refers to the permission provided for the preservation of creative work such as a book, films, plays, music, and other things that are the products of the author's original intellectual creativity. Technology underwent significant developments at the start of the 20th century, The emergence of the internet and digital technology has presented both opportunities and challenges for copyright protection. While creators now have the ability to commercially exploit their works, the safety of their content has become a top priority. Measures were initially put in place to safeguard the material, but they only provided protection for the content itself and not for the measures employed. This led to calls from copyright owners for legal protection for both the content and the safeguards used to protect it.

The WIPO Copyright Treaty (WCT) and WIPO Performances and Phonogram Treaty (WPPT) were both signed in order to solve these issues. These agreements encompass both the rights management information (RMI) and technical protection measures (TPMs) needed to secure digital content. The term "Digital Rights Management" (DRM) refers to a number of techniques used to safeguard owners' rights in the digital sphere. To monitor and stop unauthorised copying or distribution of digital copyright objects, licensees must utilise TPMs. DRM and RMI are expressly covered under the WCT and WPPT.

A copyrighted work is protected both online and offline by DRM, which acts as an anti-piracy system to restrict unauthorised copying. It stops users from interacting with the content in ways that the content creators have not approved. The terms digital rights management (DRM) and electronic copyright management systems (ECMS) are frequently used interchangeably. ECMSs are created to automatically manage rights associated with digital content, including establishing and enforcing licence terms, preventing unauthorised access and copying, and managing copyright work and other information.

The WCT and WPPT's provisions have been incorporated into local laws, including the US Digital Millennium Copyright Act and the EU Information Society Directive. The Copyright Act in India was updated in 2012 to comply with world norms. Users may now copy and distribute information more easily thanks to the digitally networked environment, which lowers

the cost of distributing copyrighted content but also raises questions about the security of works and protection against copying, alteration, and modification.

DRM controls how content should be properly used, offering features such as secure sharing and tracking, protection against tampering during transmission, prevention of unauthorized content use, and the ability to specify appropriate usage rights. India, as the largest consumer of intellectual property products, faces challenges of intellectual property piracy due to factors like illiteracy, poverty, ignorance, and a lack of legal protection for online content. In such cases, copyright holders have the responsibility to protect and manage their work according to their inherent rights, including the ability to limit usage in different circumstances.

Copyright law recognises the difference between primary infringement, which involves direct involvement in reproducing or performing works protected by copyright, and secondary infringement, which has to do with handling illegal copies, facilitating their use, or sponsoring public performances. The offender must be aware of or reasonably suspect the illegal activity in order for there to be a secondary violation. However, there is no specific distinction between primary and secondary infringement under the Indian Copyright Act.

The requirement for collective copyright management, privacy concerns, and adherence to restrictions and exceptions in copyright law are the main problems with DRM.

## **1.1. STATEMENT OF PROBLEM**

The inherent right to reproduce is one of the issues in the digital era of copyright. Reproduction is a necessary component of dissemination since a work cannot be spread without it. Every level of transmission involves some form of reproduction technology of conveying copyrighted content have been developed through modern technology. “Data is divided into smaller pieces, or “packets”, of information when delivered across the internet via a method called “packet switching”. At that point creates a temporary copy of each packet and broadcast it via the network as independent or unique units at various intervals.

In India, reproduction includes “strong it any medium by electronic means” and is only permitted in a tangible for. However, there is no conclusive evidence that all reproductions in cyberspace violate the ideas of rights to reproduction as defined by law.



The growth of the .digital world has a substantial impact on the right of distribution once more. As the two rights combine in cyberspace, the problem appears to be considerably more complicated. The WCT expanded the right of distribution to “fixed” copies and the rights of communication to the public as a distinct Rights after taking into account the interests of copyright owners in the developing digital environment.

- **JURISDICTION**

Online copyright infringement cases may include many nations or areas, making it difficult to determine jurisdiction because the internet is an impalpable realm. Because copyright infringement typically involves more than one state, either because the offender to the copyright owner lives abroad or because the act of infringement is conducted in a separate location, protecting copyrights in the global market present significant issues.

The issue of whose jurisdiction would be suitable then arises. Even though these concerns are also the subject of international treaties, each state and legal system is ultimately responsible for deciding which court has the authority to rule on disputes having an international component. Jurisdiction and the ideas of territoriality are intertwined. In the context of copyright protection and infringement, the concept of territoriality, which has roots in both municipal and international law, complicates matters by requiring that, when a case of infringement has been established, the appropriate jurisdiction be chosen.

- **PUBLIC USE VERSUS PRIVATE USE**

The Copyright Act of 1957 establishes a difference between replicating a specific work for public and private use. With the prior approval of the original author or creator, this distinction also makes it possible to utilise copies of works with copyright protection that are in the public domain. Work transmission has changed as the internet has grown. Through internet resources, a person or user can distribute or transmit a work that is copyright-protected to multiple others, making it challenging for copyright laws to defend the owner's rights.

- **Domestic Intellectual Property Right Laws**

It is essential that all of the state laws governing the various jurisdictions are in compliance with one another in order to avoid any delays and administer justice in situations of copyright infringement in India. IPR laws that are uniform across states are currently absent, which frequently results in delays in court proceedings and impairs the ability of the judicial system to administer justice.

for instance, only a few governments have the authority to require Internet Service providers (ISPs) to conduct audits of the content beings sent across the internet, whereas other jurisdictions lack this authority. Because cyberspace is widely accessible and anybody may submit any material regardless of their geographical jurisdiction lack this authority. Because cyberspace is widely accessible and anybody may submit any material regardless of their geographical jurisdiction, this way of censorship is not as simple as it looks. This is important in order to intercept and prohibit websites that violate copyrighted content. Therefore, it is crucial that uniform domestic IPR laws be implemented in order to provide clear guidelines for preventing copyright infringement.

### **Enforcing Liability**

Since there are multiple parties involved in copyrighted infringements, those parties' tools, services, and venues are often used by the individuals who commit the infringements. As a result, in a order to enforce any type of penalty, it is importance to identify exactly who is responsible. Additionally, there is a persistent legal debate over how much blame should be placed on those other parties. However, there may be several parties implicated in a single copyright infringement on the internet issue. Before entering the public domain, information passes via a number of layers and computers. Such violations may be committed by a number of persons, all whom may have their bases of operations in different locations.

It is crucial to understand who is responsible for responsibility when enforcing it. This can be either the parties who receive the lability or the intermediates, such as ISPs, cloud services providers, search engines, social media platform, etc. For instance, it is unclear in a case of piracy who would be responsible—the entity receiving the information, the individual sending it, or the operation that was participating in the process. In order to resolve the issue of their liability, the ISPs must be aware of infringement incidence. A provider must directly or indirectly violate the law, particularly through vicarious or contributory copyright infringement, as the Honourable court noted.

- **Multimedia, social media, and Software**

The expanding digital environment gives many people the flexibility to advance and revolutionize their employment. The digital copyright gives users the ability to present their work in a variety of media including literary, artistic, musical, etc., while transmitting and combining information on the same, raising the question of authorship. The widespread use of social media platforms in the digital age raises the risk of infringement since numerous users may contact, post, and download works protected by copyright. Software piracy is another problem, when violators use this technology to duplicate, export, rent, and other illegally use copyrighted software.

## 1.2. **SIGNIFICANCE OF RESEARCH**

- Digital Rights Management is a type of instrument that copyright holders may use to properly safeguard their online digital property. Even if DRM systems are becoming more robust all the time, someone would discover a way to circumvent them, which would allow for free content appropriation without the owner's permission. The support of the law is crucial in preventing the breaking or circumvention of DRM mechanisms. Laws prohibiting the circumvention of DRM frameworks designed to protect the enhanced privileges of the copyright owner have been Authorized many nations to address this issue. Such rules protect rights by making it unlawful to go around innovative security mechanisms for computerized information.
- Anti-circumvention laws provide substantial assurance to copyright owners while denying people generally the rights they have over the works that are protected. Since circumvention would be illegal, any such way to use the work would therefore be illegal, depriving individuals generally of their right to free use. The anti-circumvention laws, therefore, cause a dispute in this modern era that has devastating consequences. Currently, the world is having trouble coming up with an amicable solution to this issue. In light of these conditions, this article discusses the requirement for an anti-circumvention law in India and other developing nations.
- Since the two Internet treaties were ratified, digital rights management has been given legal protection by both domestic and foreign legislation. According to WCT Articles 11 and 12 and WPPT Articles 18 and 19, the contracting parties must have adequate legal arrangements for the protection of online digital content. India modified these two internet agreements in 2012 in compliance with them. However, it doesn't appear that the regulation has increased the protection of digital information found online. In addition, a number of pressing issues including DRM and privacy and DRM and Copyright Societies still need to be addressed.
- Strict rules against DRM system circumvention may entirely eradicate piracy, but they also hinder individuals in developing nations like India from accessing data, information, and entertainment. This inhibits the growth of cherished expressions in developed nations. Due to their non-distinctive nature, the Internet and the web cannot be divided off like land into multiple domains to construct different principles for different nations based on the state of the country's development. In such a case, one should embrace a building that would be beneficial to the entire world.
- Having a robust legal defence against DRM framework circumvention would be advantageous for the entire world as it would promote innovation in useful expressions, which would be advantageous for humanity as a whole after examining the interests of both developed and developing nations. There wouldn't be any information, entertainment, or data

without creativity. Therefore, it is preferable to foster creativity by passing anti-circumvention laws in India and other countries rather than outlawing all kinds of it.

### **1.3. HYOPTHESIS**

**Following hypothesis has been outlined for testing:**

- Incorporating the digital provisions of the WIPO Internet Treaties into public legislation is necessary to effectively safeguard online content from advanced digital piracy and ensure the protection of rights management information.
- The existing copyright laws are insufficient in addressing the challenges posed by digital technology.

### **1.4. OBJECTIVE**

**Major objectives of the research work are as follows:**

- To comprehend digital rights management (technological protection measures and rights management information), which will support creators' and holders' economic, service, and investment prospects, etc.
- Finding a policy that addresses the financial interests of the creator and enhances the customer's ability to
- 
- use copyright and industrial property rights while also strengthening the relationship between the creator/copyright holder and the end user through the use of DRMs is necessary to promote greater economic growth.
- To create a transparent, predictable, and easy-to-invest-in system; to liberalise and promote digital copyright, industrial property, and services between users and the rest of the world; and to encourage, make possible, and maximise prospects for global collaboration;
- To established a framework of transparency regulations to control, to lessen needless conditions, and to regulate the DRM system;
- to provide the tools for copyright owners and other value chain actors to manage and defend their rights in published works;

- In order to ensure that rights are managed in the public interest, such as through copyright exceptions, legal provisions must be put into practise. Additionally, users must be given the tools necessary to manage their lawful personal rights and interests.
- To promote India's initiatives to establish a stable, unrestricted, and open global copyright environment.

## **1.5. Research Methodology**

An interdisciplinary approach to doctrinal study would be the methodology to be used. To learn about the current situations, a library-based research strategy was used and data were gathered from both primary and secondary sources. To improve and reinforce the DRM in terms of copyright and industrial property rights, the thesis will propose policy and legislative proposals using a problem-, policy-, and law reform-based approach. This will go beyond just assessing the current situation. The researcher would also conduct a doctrinal analysis of DRM provisions in the United Kingdom and the United States of America, two countries with more than ten years of experience in comprehending the consequences of DRM laws, to further the research effort.

This would give a better perspective for determining if the DRM requirements in India are appropriate. The researcher would also decide on the best strategies for making the DRM requirements more enforceable. In order to address the research issues given above, the comparative research feature will be used to the notion of regulatory mechanism after it has been comprehended in light of the emerging jurisprudence. The development of an adequate regulatory model to examine the compromise of regulatory capacity when interpreting India's copyright anti-circumvention legislation is a crucial component of the study technique. The Dissertation has been formatted in accordance with the citation criteria established by the Indian Law Institute and the regulations for using footnotes.

Collection and Analysis of data - Where applicable, primary sources such as Acts, Orders, and Judgements handed down by different courts have been scanned and presented. The laws, such as the copyright laws and regulations of the US, UK, and India, as well as international treaties and conventions like the TRIPS Agreement, Rome Convention, Berne Convention, and WCT were also examined. The study's main conclusions have been built using secondary sources, such as books, journals, articles, websites, etc. Additionally, information was gathered from commission, committee, copyright office, and ministry reports, as well as from published

research studies and online databases like Hein Online, West Law India, JSTOR, Lexis Nexis, SCC Online, Manupatra, and SSRN.

The research has acknowledged all sources of data, primary and secondary, through footnotes and bibliography

## **1.6. REVIEW OF LITERATURE**

**For the purpose of the literature review, present research work scrutinizes the work of various authors mentioned below:**

In the book authored by **Sterling, J.A.L., Chapter 23 titled "WIPO Copyright Treaty"** delves into the exploration of the worldwide proliferation of digital technology during the latter half of the 1990s and its profound impact on copyright regulations and legal challenges. The protection of online digital content emerged as a significant concern for the global community in the wake of the digital revolution. In 1991, the World Intellectual Property Organisation (WIPO) formed expert committees to look into problems relating to digital technology in response to a demand from throughout the world. These committees were each given the task of drafting a potential Berne Convention modification as well as a different international law for the protection of web-based content. The WIPO Copyright Treaty (WCT) and the WIPO Performances and Phonograms Treaty (WPPT) both recognised the use of legal instruments to enact severe sanctions for infractions.

**According to M. Fiscor's** book, "The Digital Agenda Technological Protection Measures and Right Management Information," Part II and Chapter 8 provide an extensive examination of the two internet treaties and relevant provisions regarding Digital Rights Management (DRM). The crucial regulations concerning DRM can be found in Articles 11 and 12 of the WIPO Performances and Phonogram Treaty (WPPT) Articles 18 and 19, as well as the WIPO Copyright Treaty (WCT). Additionally, this chapter provides definitions for phrases like "effective technological measure." It emphasises that if a limitation can be gotten over using any kind of technology, it cannot be regarded as an effective technological measure.

**Lionel Bently and Brad Sherman's** book, specifically the "Infringement" chapter, dedicates its eighth section to the examination of defensive technological systems. Any development, tool, or industrial sector that aims to prohibit or restrict activities involving works or other topics that are not authorised by the right holder as part of its routine business is referred to in this context as a technical protection measure.

According to **Priya Ranjan Trivedi's** book, it explores foundational concepts such as copying, digital copying, and more. Chapter 8 of the book, titled "Understanding Copyright in the Digital Environment," includes significant cases involving online digital content, such as the Shetland Times Case and others.

In **Ashok Arthi's** article, the focus is on India's stance on digital rights management both before and after the amendment. Although India is not a member of the WIPO Copyright Treaty (WCT) or the WIPO Performances and Phonogram Treaty (WPPT), it recognized their significance and incorporated their principles into the public copyright legislation. The article also discusses the situation prior to this shift. Some provisions in the Indian Copyright Act of 1957, as amended in 1994, can be interpreted to provide protection for anti-circumvention technology. The Act includes the term "Plate," which encompasses specific tools that directly or indirectly assist in the creation of a work.

According to **Ayan Roy Chowdhury**, the 2012 revision to the proposed Copyright amendment is deemed ineffective. It is argued that no form of Digital Rights Management (DRM) can successfully combat piracy. As an example, even the Digital Millennium Copyright Act (DMCA), designed with comprehensive measures to address internet copyright infringement, has been unable to fully prevent piracy.

In **V. K. Ahuja's** book, both international copyright treaties and Indian copyright law are discussed, despite India not being a signatory to any of these treaties. The book also references international law, particularly English law. Numerous decisions from both English and Indian courts are included in this book. Chapter 17 of the book, titled "Copyright and the Internet," covers the topic of copyright infringement on the internet through various means such as posting or uploading content, linking, framing, caching, file sharing, and more. Additionally, this chapter delves into the fair use defence and the responsibilities of Internet Service Providers (ISPs).

## **CHAPTER II**

# **COPYRIGHTS AND DIGITAL RIGHTS MANAGEMENT**

### **2.1 OVERVIEW:**

A particular category of intellectual property rights is copyrighted. Rights to one's creations of property are known as intellectual property rights. In other words, "Copyrights" refers to the permission provided for preserving artistic, theatrical, musical, and other works produced by the authors. The privileges, rules, and restrictions that accompanied the invention of printing in the fifteenth century are where copyright first emerged; these mostly protected the printer rather than the author. The term "copyright" symbolizes the right to produce a copy and the ability to prevent others from doing the same. The first phrase is one of positivity, whereas the second is one of negativity.<sup>1</sup>

The law relating to Copyrights was first passed by the British Parliament in the year 1710 i.e., Statute of Anne. Copyright laws were established in many countries across the world in 1790, starting with the USA. Following The Nineteenth century, it was believed that creations made in one country may be advantageous in another and that some method of achieving some across-border security is required. Early on a custom of providing international authors in their home country evolved, provided that the other country extended reciprocal protection. Numerous bilateral and multinational agreements were reached to provide authors with reciprocal protections. The Berne Conventions were consequently adopted in 1886, founding the Berne Union and granting authors of nations that joined the conventions:

1. similar protection under the domestic laws for local and foreign authors (National Treatment).and
2. Definite minimum rights.

Afterward, a number of further international treaties and multilateral and bilateral agreements for the protection of authors were established.

Technological innovation underwent revolutionary changes at the start of the 20<sup>th</sup> century, creating new opportunities for the exploitation of works protected by copyright. However, it also presents serious difficulties for the preservation of works protected by copyright. The

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<sup>1</sup> J. A. L. Sterling, *World Copyright Law*, (London: Sweet and Maxwell, 2008) at 4.



development of the internet and digital technology in the latter half of the century primarily increased the complexity of copyright protection in the digital environment and virtual world.

In light of the foregoing, the current chapter explores the definition and number of key terms, including Copyright, Content of Copyright, Term of Copyright, Originality, Copying, Digital Copying, Technological Protection Measures, and Digital Right Management. A key component of Digital Rights Management and various aspects of Digital Rights Management in the context of Copyright and Technology.

## **2.2. COPYRIGHT AND INTELLECTUAL PROPERTY RIGHTS**

Intellectual property rights (IPRs) represent ownership's legal profit most obviously when knowledge and information become the subject of ownership, the capacity to collect rent for exploitation, and the right to receive damages for loss and the transfer amount. Two of the subgroup of intellectual property rights, but the two that are the subject of the most debate are industrial intellectual property (patents) and literary or artistic (copyright) intellectual property right. A man's right to the creations of his mind is the foundation of all property rights, and patents and copyrights are the legal execution of this right. A design patent is not covered by a patent, though.

copyright safeguards both published and unpublished creative works, including those in the fields of literature, music, art, architecture, software, and dance. It also protects the development of new methods. Like a patent holder, the copyright owner has exclusive rights, including to reproduce, make derivatives, distribute copies, display the work in public, or perform the work publicly. For patents, the knowledge which too is registered and therefore made property should be appropriate in industry. If an idea is patentable, it must be:

- **Novel:** Innovation must not have been previously published or made publicly available to qualify for a patent.
- **Inventive step:** It also means the **non-obviousness** of any invention. Section 2(1) (ja) of the Act defines the term inventive step. According to definition implies that if the invention is obvious to any person, then it does not fulfill the criteria of patentability.
- **Industrial application:** is defined under Section 2 (1) (ac) of the Act. It means that if an invention is in the abstract form, it cannot be used in the industry and will lose its application. Thus, it is necessary that the invention has the capability of industrial application.

If an idea meets the three conditions, it may be eligible for patent protection in any of the member countries of the World Trade Organization (WTO). The patent application is submitted to the national patent office (or the European patent office) which, in exchange for a fee, grants others access to the patented information as stated in the patent document, but Patents are an institutionalized agreement between the state and inventor, thus it's possible that the office will play a more significant role in policing and assisting with the penalty for unlawful usage. The state promises to make sure the inventor is compensated for their concept when it is used by others (during the Patent's validity), and the inventor agrees to let the state enter the idea into its public record. Unlike patents, copyright addresses the type of knowledge and information that is typically referred to as "literary and artistic works." Typically, this is communicated through the use of words, symbols, music, image, three-dimensional object, or any mix of these. Thus, copyright protects written works ( both fiction and non-fiction), musical work (of all kinds), and artistic work (of two and three-dimensional form and, importantly, irrespective of content from "pure art" and advertising to amateur drawing and your child's doodles), as well as maps technical drawings, photographs, audio-visual works (including cinematic works, video, and forms of multimedia), the audio recording, Broadcasts and typographical arrangements of publications may be subject to copyright restrictions. The fundamental concepts, the storyline, and the colour combination, however, are not protected; only the exact representation is protected by copyright. The purpose of copyright is to ensure that work protected by copyright laws is not utilized without the owner's permission (or the owner of the copyright, if the author has legitimately transferred the copyright to another party). Frequently, just an economic right is covered by this. However, there is an extra moral right to prevent work from being altered or misrepresented in some jurisdictions (mostly those in continental Europe and those that have been affected by the civil law custom). Any resultant revenue may be awarded by the court to the original copyright owners in all circumstances when terms have not been agreed upon prior to the act of reproduction or copying. It is assumed that an infringement occurred. But unlike patents, copyright is a property of the work from the moment it is created; all that is required is for the author to demonstrate that any alleged infringement is a copy of the original material and that it was the result of a copying-related planned action. A concept known as "fair use"—or, in Europe, "fair dealing"—has been developed by courts and politicians in separate countries equally over the course of the lengthy history of Copyright protection. This concept has been utilized to establish, either formally or more pragmatically (via case law), the right of purchasers of copyrighted work to copy portions of such works for personal use, scholarly research, and critical analysis, as well as for a few other specifically

mentioned (academic) purposes. The main characteristic of fair use has been that creativity often depends on the reuse or adaptation of portions of previously accessible (and protected) works, and since Copyright is proposed to support and protect creativity, it should be limited where the protection of rights might restrain such creativity. Under this relaxation of some claimed absolute copyright, plagiarism is still a violation. As copyrights have increased in value to owners and DRM has increased the potential of control by these owners, the true extent of these exemptions for fair use and whether they are genuinely consumer rights must become a major point of debate.

### **2.3. COPYRIGHT AND CONTENTS OF COPYRIGHT**

**In order to get copyright protection, the content and fulfill the following minimum requirement:**

- 1) **Originality:** The content must be original, meaning it is the result of the author's own creative effort and not a copy of someone else's work. It should not be a mere reproduction or imitation.
- 2) **Fixation:** the content must be fixed and a tangible medium of expression. This means it should be in a concrete form that can be perceived, reproduced, or communicated.
- 3) **Creativity:** The content must possess a minimal degree of creativity or authorship. While the threshold for creativity is generally low, there should be some originality or personal expression involved. Purely factual information or commonly known ideas are not eligible for copyright protection.

**As per Section 13 of Chapter III of The Indian Copyright law, the following sort of work will get copyright protection:**

- I. Literary work
- II. Artistic work
- III. Dramatic work
- IV. Musical work
- V. Cinematographic work
- VI. Architectural work
- VII. Sound recording
- VIII. Computer program

Copyright is a bundle of rights conferred by the law. The copyright holder now has some exclusive rights under Sections 14 and 57 of the Act.

- 1) Statutory Rights
- 2) Economic Rights
- 3) Moral Rights

**Statutory Rights:** because they are protective in nature, they are sometimes recognized as negative rights. It prevents anybody besides the author from profiting from content without the author's consent.

**Economic rights:** in copyright law refer to the exclusive rights granted to the copyright holder to control the economic exploitation of their copyrighted works. These rights enable the copyright holder to derive financial benefits from their creations. Economic rights typically include the following:

- Adaption rights
- Distribution rights
- Public performance rights
- Public display of work life
- Rental rights
- Reproduction rights
- Translation rights

**Moral Rights:** protect the indefinite and un waivable authorship right of the creator to his or her work, the right to sign the work with the author's name or pseudonym, and to share it anonymously. They also include the right to maintain the integrity of the content and form of the work as well, as fair use, as well as the right to decide whether to make the work available to the public for the first time and supervise the way it is used.

## **2.4. TERM OF COPYRIGHT PROTECTION**

Copyright protection is a Natural Right in India, and there is no mandatory requirement for registration of work to avail of the protection. In most countries, copyright protection is obtained automatically without the need for registration or formalities, but most countries have a system in place to allow for voluntary registration of work. This is a *sue generis* right. The term of copyright for different categories of work sections 22 to 29 of chapter five of the Indian Copyright Act. The term of the copyright protection is as mentioned below:

1. In the case of literary, dramatic, musical, or artistic work the term of copyright is the lifetime of the author or artist plus 60 years from his death. The period of sixty years is calculated from the year following the death of the author or artist. In the case of joint authorship work, the period of 60 years shall be counted at or immediately before the date of death of the author who dies last.
2. If the publication of the work is anonymous, that is publication when the author of such work is unknown. The copyright term of an anonymous publication, as provided under Section 23 of the Copyright Act, 1957, is also for a period of sixty years, calculated from the beginning of the calendar year next following the year in which the work is first published.
3. Term of protection of copyright for photographs, cinematography films, and sound recordings is 60 years from the date of publication.

## **2.5. REGISTRATION OF COPYRIGHT WORK**

As stated, earlier copyright is a statutory right and it can be enjoyed within the parameters of the Copyright Act. Although there is no provision in the act that deprives an author of his rights thereunder merely for non-registration of his copyright<sup>2</sup>, the registration of copyright offers some advantage over non-registration. In other words, **the registration is optional but beneficial.**

Copyright registration is done in accordance with the Copyright Act, of 1957. With copyright registration, you may become a legal owner of your creative work in respect of books, paintings, music, video, paintings, website, mobile applications, etc. Copyright registration with the authority ensures that the author's creative work cannot be limited. No person is authorized to use the same without the permission of the author or creator. The author is allowed to charge others for using his work or modifying it. Copyright registration safeguards the rights of the creator from infringement. It gives legal protection by which no other person can misuse the copyright in any manner without obtaining the permission of the owner.<sup>3</sup>

Copyright protection is basically granted to an author on three fundamental standards. They are:

- Work must be original
- Protection of expressions of ideas rather than the ideas themselves
- Must be fixed any medium

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<sup>2</sup> Article 5 Berne Convention 1886

<sup>3</sup> Sundarsan v A. C. Tharulokchander (1973) 2 Mad L J 290

For exclusive protection, the work must be original or meet a minimum threshold of originality.

Copyright is granted to creative expression, but the standard of originality depends on the author having enough independent skill, labour, and judgment to defend the result. The laws and courts have barred the idea or methods that might be embodied in an expression of labour. However, the originality requirement relates to the expression of the idea.

One pervading essential element and pre-requisite to copyright protection, regardless of the work in question, copyright exists in original works of authorship, which is a fundamental requirement for copyright protection. The definition of original or authentic work. copyright work. The Act does not, however, specify what original work is. The court has consistently drawn the conclusion that copyright protection is necessary from the possibility of claims by writers or their legal heirs. The author is a novice, which is why it was claimed. Or the initiator of anything...A work is not the creation of an author unless it is entirely unique, hence creator and originator are synonymous. The work does not need to be exceptional or of high calibre in order to be original. If a work does not copy another work and expresses an idea in its original form, it is protected. In the process of creating the work from a prior copyright work, a different selection and arrangement were made.

The need for originality pertains to the expression of an idea by an author and prohibits the act of copying from another source. While the Berne Convention does not explicitly impose a requirement for originality in protecting copyrighted works, it consistently demands that the work pass the originality test in order to grant protection to authors for their intellectual creations. This implies that the work must possess originality resulting from an individual's own intellectual efforts. The degree of originality necessary and its scope are determined by the international law of the Berne Convention member nations, as well as the type of work in question. Consequently, in the United Kingdom (U.K.), it has traditionally been understood that the mere labor involved in creating a work is sufficient to establish its originality, regardless of the presence of skill.<sup>4</sup>

The London University Press principle was employed in the case of **Macmillan and Co. v K & J. Cooper**. In this case, Lord Atkinson stated that if an author invests labor, skill, and effort into a work that is not novel or inventive, but still offers others the opportunity to create a similar work with the same outcome and idea, the

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<sup>4</sup> Macmillan & Co v Suresh Chunder Deb (1890) 17 Indian L.R. (Calcutta) 951 (PC) (Palgrave's Golden Treasury) Cited at Supra note. 3, Para 2- 05, Vol. 1, p 131

author is not considered the pioneer in the field. However, the work is still deemed independently created and meets the originality requirement outlined in the relevant legislation.

According to the Supreme Court of Canada in the case of **CCH Canadian Ltd v Law Society of Upper Canada**,<sup>5</sup> it was determined that the level of skill and judgment involved in creating a work should not be insignificant or simplistic to the point where it can be considered a purely mechanical task. It was clarified that while creative works are inherently original and protected by copyright, originality does not necessarily depend on the presence of creativity.

It is permissible to draw upon old ideas and create a new product with different outcomes. However, it is essential for the work to be independently conducted and demonstrate considerable skill, effort, and knowledge. By doing so, one can protect their work from piracy and hold responsibility for it. The level of skill, labor, and knowledge invested varies case by case. The key factor in determining the originality of a work is whether the creator applied their skill, labor, and knowledge. If satisfied, the creator will be protected by the law, and no one else will be allowed to appropriate the results of their hard work. This principle is based on the ethical foundation of the Eighth Commandment, "Thou shalt not steal."

In cases involving compilations such as dictionaries, gazetteers, maps, arithmetic, almanacs, encyclopedias, and guidebooks, a new publication dealing with similar subject matter may naturally include elements from existing publications. The defense of "common source" is often invoked when a fresh publication is presumed to infringe upon a previous one. Even if the degree of originality in such cases is minimal, it still qualifies for legal protection.

## **2.6. NOVELTY AND ORIGINALITY**

In the past, copyright protection was primarily based on the concepts of distinctive originality and novelty<sup>6</sup>. However, as time passed, both legislative and judicial interpretations acknowledged that originality, which is a prerequisite for copyright protection, only requires independent creation and not necessarily novelty. Therefore, copyright protection may be denied if a work is substantially similar to a previous work created by others, even if it lacks novelty. In other words, the focus shifted from novelty to independent creation as the key criterion for copyright protection. The test of previous art which is normally challenged in patent law has no

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<sup>6</sup> E. Mishan & Sons, Inc. 662 F. Supp. 1339, 1340-43 ((S.D.N.Y. 1987)

application in copyright cases.<sup>7</sup> “We can observe that the distinction with author and their writings form inventors and their discoveries, where an invention carries an implication which excludes the results of only ordinary skill, while nothing of this is necessarily involved in the preceding and the constitutional makers never intention that copyright matter be strikingly unique or novel.<sup>8</sup> However, Jerome Frank, J went on to say, “Although copyrights are easier to obtain than patents because originality is more proven than in novelty, patents grant a greater monopoly than do copyrights.

**WHAT IS ORIGINALITY?** The concept of "originality" is regarded as a crucial component in copyright works in the copyright world. anything that has just been created or found that wasn't there before. The Copyright Act of 1957's originality provision forbids the falsification, duplication, or other unoriginal works of innovative inventions, creative works, or literary works. Originality in art is viewed as an homage to the creative labour of artists, producers, and innovators and inspires them to generate more. All original Indian literary, dramatic, musical, and other artistic works are protected by copyright under sections 13(1)(a) of the copyright act.<sup>9</sup>

The expression ‘originality’ and ‘creativity’ must be distinguished and separated. The former does not connote novelty. But the letter does not mean an inventive leap or new idea in the sense of never having been conceived before.

Infringing on copyright is when someone violates the law without the owner of the work's consent or authorization. The Copyright Act gives authors the exclusive legal right (economic, moral, etc.) to obtain all different advantages for his intellectual creativity. The Indian Copyright Act states in section 51 of chapter XI that “using any copyrighted work without the authorization of a copyright owner is a breach of copyright law and the following.” In some circumstances, copyright may have been violated. Any person who violates copyright is totally accountable for his actions. Instead, it refers to material with a hint of originality in copyrightable language. If a work is replicated without discernible variation from prior work, the making of the copy needed the attributes of special skill, training, and knowledge, as well as autonomous judgment on the side of the copyist. The copyright protects only those attributes when employed as acts of authorship, not any ability, training, information, or judgment that would support a Copyright. Only the writers may be granted a copyright. For e.g., assume a scholar explored

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<sup>7</sup> Sheldon v Metro-Goldwyn Pictures Corp. 81, F.2d Cir. 1936; Key Publications, Inc v Chinatown Today Pub Enters., Inc 945 F.2d 509, 513 (2d Cir. 1991)

<sup>8</sup> Alfred Beii & Co. v Catalda Fine Arts 191 F.2d 99, 100 (2d Cir. 1951)

<sup>9</sup> Section 13(1)(a), 13(1)(b), 13(1)(c), the Copyright Act, 1957



the museum for several years, and lastly, after many attempts, found that there was some manuscript which was unknown till then, such a person may well have exercised much skill, training, knowledge, and judgment, but will not be entitled to have a copyright as he/she was in no way engaged in any Act of authorship. Thus, he/she has not created anything that “owes its origin” to him/her and has failed to create a “distinguishable variation” involving or engaged in authorship.

In the case of the **Government of West Bengal Nitya Gopal Basak**,<sup>10</sup> the Calcutta High Court laid down the test of originality in the following words:

- If any person by pain and labour collected and reduced into the form is sufficient to constitute an original work, of which the copyright would be protected.
- Another person might create another work in a similar general form, provided he did so from his own resources and made the work he so originated a work of his own by his own labour and industry bestowed upon it.
- In determining whether an injunction should be ordered the question where the matter of plaintiff’s work was not original was how far unfair for undue use had been made of the work.
- If instead of searching into the common sources and obtaining subject matter from thence, anyone availed himself of the labour of his predecessor, adopted his arrangement and questions, or adopted them with a colorable variation, it would be an illegitimate use.
- Falsely denying that he had copied or taken any idea or language from another work would be a strong indication of animus furandi.
- If the court was led to the conclusion that there had been piracy, it would not grudge any labour that might be requisite in order to ascertain how far the injunction should extend, were certain distinct parts of a work were unobjectionable and others contained piracies.
- The method of communicating information by questions and answer being of unknown antiquity, the plaintiff could not claim any originality or genuineness in the plain of his work.
- Questions of fundamental simplicity were not copyrightable.

The statutes have not described the expression “originality” and the evolution of what comprises originality stems from some judicial pronouncements of the court as discussed above. Therefore, it can be said that originality is not to be equated with creating something that had not before been; rather, it is the work utilised to describe the causal relationship between an author and the medium in which work is created is embodied.

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<sup>10</sup> 1985 Cr L J 202

Copyright holders do not have a monopoly on the subject matter. Any other person is free to develop a comparable conclusion, as long as they do not copy and do so independently; even if they are not the first in the field, their work is valuable. Nonetheless, unique<sup>11</sup>. The originality criteria shall apply to computer programs when the author generates such work with his or her own free skill, labour, and capital can get copyright protection.

## **2.7. the idea/Expression Dichotomy**

idea-Expression Dichotomy means that ideas themselves are not protected by copyright laws, but their manifestations are. In light of this, copyright rules could not apply to a concept that has not been transformed into a distinct, precise arrangement of words, graphics, or other forms. The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs), Article 9(2), upholds this enduring premise of copyright law:

- **Example of Idea-Expression Dichotomy;**

It doesn't stop other filmmakers from creating a movie with a narrative identical to the one in a movie based on a Mumbai gangster. **Hansal Mehta's Scam 1992 and Kookie Gulati's The Big Bull**, both starring Pratik Gandhi and Abhishek Bachchan, were recently released in India. Both films were based on a narrative by Harshad Mehta. These films shared a similar concept and narrative, but their expression were unique

In terms of the idea-expression dichotomy, **R.G. Anand v. M/S. Delux Films & Ors. (1978)** is a significant judgment in India. This case established that a simple notion is not protected by copyright. However, **Baker v. Selden (1879)**, a case decided by the U.S. Supreme Court, was the first to address the idea-expression distinction. In this instance, protection was given to a statement made by Selden in his six volumes rather than the bookkeeping method he described in his books.

- **Ideas-Expression Dichotomy and copyright infringement**

The concept of idea-expression dichotomy is pertinent in deciding the infringement of any copyright-protected work. The **U.K House of Lords decision in Designers Guild Ltd v. Russell Williams (Textiles) Ltd [2000]** emphasized that, in cases of artistic copyright, the any abstract and simple the copied idea, the less likely it is to constitute a substantial part. In this case, the plaintiff's employee created an original design for dress fabric. The defendant, having

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<sup>11</sup> Walter v Lane (1900) A.C. 539, KL

seen the plaintiff's fabric, produced a very similar design and decided that Defendant's design contained a substantial part of Plaintiff's design amounting to infringement.

Further, courts across jurisdictions have stated that copyright does not subsist in style, in news in history, historical incidents, or facts, in scientific principles or descriptions of art in mere principles or schemes, in methods of operation, and in general ideas, e.g., for entertainment. This enables us in understanding as to what amounts to ideas, which are not protected under copyright laws.

## **2.8. Fixation of the work**

A work must be fixed in a concrete medium of expression in order to be protectable. When a work is saved on a media that allows it to be observed, reproduced, or otherwise conveyed, it is termed fixed. A song, for example, can be corrected by writing it down on a sheet of paper. The paper serves as a medium for the music to be perceived, reproduced, and shared. It is not required for the medium to be such that the work can be viewed by a person, as long as the work can be perceived by a machine. As a result, the song is likewise fixed when the creator records it on a voice recorder. Similarly, when a computer programme is saved in memory, it is fixed. In truth, courts have ruled that a computer programme is fixed if it is stored in a computer's RAM. This is true even if this "fixation" is just momentary and will go as the computer is turned off. (See the Bit Law discussion of how unfixed works are not covered by copyright law for further information on when a work is not fixed.).<sup>12</sup>

## **2.9. REASONS BEHIND COPYRIGHT PROTECTION**

The basis for copyright protection stems directly from the U.S. Constitution. The Framers believed that securing for limited times the exclusive rights of authors to their writings would "promote the progress of science and useful arts." The primary purpose of copyright is to induce and reward authors, through the provision of property rights, to create new works, and to make those works available to the public to enjoy. The theory is that by granting certain exclusive rights to creators that allow these creators to protect their creative works against theft, creators receive the benefit of economic rewards and the public receives the benefit of the creative works that might not otherwise be created or disseminated. While copyright law is intended to serve the purpose of enriching the general public through access to creative work, it is important to understand that copyright law imposes no obligation upon creators to make their copyrighted

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<sup>12</sup> <https://www.bitlaw.com/copyright/obtaining.html>

works available. As a result, an unpublished work that is never distributed to the public receives the same copyright protection that a published work would receive.

## **2.10. COPYING**

In copyright law, copying is a very basic idea. The work must be original in order to be protected by copyright; it cannot be a duplicate of another copyrighted work. Making something precisely like another object or writing something exactly as it is written elsewhere is referred to as copying. The work must be unique and the author's own intellectual production in order to be protected by copyright.

- **Control of Copying**

Copyright gives creators of original works the exclusive right to control the copying of their creations. This means that without permission from the copyright holder, copying copyrighted material is generally considered an infringement. There are exceptions such as fair use or fair dealing, which allow limited use of copyrighted material for specific purposes. However, the specifics of copyright law vary between countries, so it is important to consult local laws. Obtaining permission or using authorized sources is the best way to ensure compliance and avoid legal issues when copying copyrighted materials.

- **Digital Copying**

Digital copying refers to the reproduction of digital content, such as music, videos, or documents, in a digital format. Copyright laws apply to digital copying in the same way as they apply to traditional copying. Copyright holders have the exclusive right to control the digital copying of their works, and unauthorized copying is generally considered cop/copyright infringement. Fair use or fair dealing exceptions may apply in certain cases, allowing limited use of copyrighted material without permission. It is important to consult local copyright laws and obtain permission or use authorized sources to ensure compliance with digital copying.

## **2.11. Technological Protection Measures TPM**

In general terms, TPMs are software, components, and other devices that copyright owners use to protect copyright material<sup>13</sup>. Examples of TPMs include encryption of software, passwords, and access codes. While copyright owners seek to protect their work from unauthorized access

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<sup>13</sup> 3 Rafel Kasproski, "Perspectives on DRM: Between Digital Right Management and Digital Restriction Management" Bulletin of the American Society for Information science and technology, Available at: [http://www.asis.org/Bulletin/Feb10/FebMar10\\_Kasproski.pdf](http://www.asis.org/Bulletin/Feb10/FebMar10_Kasproski.pdf), (accessed on 3 Dec. 2017).

and use by means of TPMs, TPMs can also be disabled or circumvented through a range of means, including the use of computer programs or devices such as microchips. TPMs are a valid response by copyright owners seeking to protect their intellectual property from infringement.

There are two main types of TPMs: access control TPMs and copyright protection TPMs. Access control TPMs allow the copyright owner to control access to the copyrighted material – for example, password protections, file permissions, and encryption. Copyright protection measures are designed to control activities such as the reproduction of copyright material, for example by limiting the number of copies that a consumer might make of an item. One of the main differences between the two types of TPM is that an access control TPM will block access generally, while a copyright protection TPM will operate at the point where there is an attempt to do an act protected by the copyright, for example, make a copy of the material. **The legal term used for TPM is DRM.**

## **2.12. History and Development of DRM**

DRM became a significant issue with the growth of the Internet in the 1990s as CD sales were decimated by piracy and online video gained popularity. It reached its pinnacle in the early 2000s as numerous countries tried to address it with laws and regulations, and it began to decline in the 2010s as social media, streaming services, and content creators created new economic models.

### ▪ **EARLY EFFORTS**

The Software Service System (SSS), created by Japanese inventor Ryuichi Moriya in 1983, was the first use of DRM technology. Superdistribution, further development of it, was given a name. The SSS employed specialised technology to control decryption, deliver payments to the copyright owners, and was based on encryption. The fundamental tenet was that users should be strongly encouraged to physically distribute encrypted digital goods.

Early DRM security techniques included halting the game and asking the player to look up a certain page in a booklet or manual that came with the game; if the player did not have access to the content, they would not be allowed to continue.

An early illustration of a DRM scheme is the Content Scramble technique (CSS) employed by the DVD Forum on DVD movies. CSS uses an encryption technique to encrypt DVD content. Manufacturers of DVD players must get a licence for this technology and include it into their

devices in order to decode the data. The CSS licence agreement outlines the allowable outputs for the DVD content as well as how these approved outputs must be made available.

In order to modernise **US copyright law, the Digital Millennium Copyright Act (DMCA)** was adopted in **May 1998**. It had controversial (and maybe unintended) repercussions. A Russian programmer named Dmitry Sklyarov was imprisoned for allegedly violating the DMCA while giving a lecture at DEF CON. The DMCA has been cited as intimidating to legitimate users, including screen reader or other assistive technology users who are blind or visually impaired as well as security consultants like Niels Ferguson who refused to publish vulnerabilities, he found in Intel's secure computing system out of fear of being arrested under the DMCA.

When **Jon Lech Johansen released DeCSS in 1999**, there was still no Linux-compatible DVD player available, allowing a **CSS-encrypted DVD** to be played on a system running **Linux**. DeCSS's legality is in question because one of its authors was sued, and the ability to reproduce the keys itself is constrained because of illegal numbers.

More contemporary examples are **ADEPT, FairPlay, and Advanced Access Content System**.

In 1996, the World Intellectual Property Organisation Copyright Treaty (WCT) was ratified. In 1998, the United States established the Digital Millennium Copyright Act (DMCA). The Information Society Directive was passed by the European Union. The lower house of the French parliament established similar laws as part of the contentious DADVSI bill in 2006 but added that protected DRM systems should be made interoperable, a move that sparked great outrage in the United States. In 2006, the Tribunal de Grande Instance de Paris ruled that completely prohibiting any possibility of creating private copies was illegal under French copyright law.

#### ▪ **2000s**

The broadcast flag idea was developed by **Fox Broadcasting in 2001** and supported by the **MPAA and the US Federal Communications Commission (FCC)**. A **US Court of Appeals declared in May 2005** that the FCC lacks the authority to impose it on the US television industry. It required that a stream specification, which establishes whether a stream may be collected, be followed by **all HDTVs**. This could stop instances of acceptable use, such time-shifting, from happening. It was adopted by the **Digital Video Broadcasting Project (DVB)**, a group of around 250 broadcasters, producers, network operators, software developers, and

regulatory authorities from about 35 countries trying to create new digital TV standards, and this is when it began to have more success.

On May 22, 2001, the European Union adopted the Information Society Directive, which covers copyright rights.

In 2003, the CEN/ISSS (European Committee for Standardization/Information Society Standardisation System) released the DRM Report.

The 2004 consultation process on the European Commission's Communication COM (2004)261 on "Management of Copyright and Related Rights" was conducted by the DG Internal Market and the European Commission.

In 2005, DRM workshops were supported by the Director-General for Information Society and Media of the European Commission, and the high-level group on DRM worked on its initiatives.

In 2005, Sony BMG installed DRM software on users' PCs without adequately informing them or requesting their consent. The application included a rootkit, which led to a security flaw among other problems. Sony BMG first minimised the severity of the problems when the identity of the software was disclosed much later, but eventually recalled millions of CDs and made many attempts to patch the programme to get rid of the rootkit. There were class action lawsuits filed, which were ultimately resolved by contracts offering harmed consumers a monetary payout or DRM-free music downloads.

When it was launched in 2006, Microsoft's Zune media player did not support content with PlaysForSure DRM.

Media files that include rights management language instructions on what the user may do with the content are read by Windows Media DRM. Later versions of Windows Media DRM offered options to block off certain areas as well as music subscription services that rendered downloaded tracks useless if subscriptions were terminated. DRM restrictions on Windows Media are eliminated by tools like FairUse4WM.

The Gowers Review on Intellectual Property, published by the British government in 2006, included suggestions about copyright durations, exclusions, orphaned works, and copyright enforcement.

Hackers published a process key for the commercial Advanced Access Material System (AACS) for HD DVD and Blu-ray Discs in December 2006, enabling unrestricted access to AACS-protected content.

In January 2007, EMI stopped selling music CDs with DRM, stating that "the costs of DRM do not measure up to the results."<sup>[40]</sup> One of Europe's top online music retailers, Musicload.de, proclaimed its staunch opposition to DRM in March. In an open letter, Music Load stated that three out of every four calls to their customer service phone line are the result of customer annoyance with DRM.

Apple Inc. produced music DRM-free after April 2007, and starting in 2008, all music was marked as "DRM-Free." DRM is used to secure other items that are offered on iTunes including applications, audiobooks, movies, and TV series.

The British rock band Radiohead released *In Rainbows* in October 2007, and fans could either pay what they wanted or download it for nothing.

Due to a change in the servers used to validate licences in November 2007, movies purchased from Major League Baseball before 2006 were no longer functional.

The European Parliament supported the EU's copyright protection strategy in 2007.

A soundcard made available by Asus has a feature known as "Analogue Loopback Transformation" that enables it to get around DRM restrictions. The built-in analogue I/O connection on the soundcard can be used with this capability to record DRM-protected audio.

A digital retailer that specialises on PC video games and has a strict non-DRM policy is GOG.com (formerly Good Old Games).

**In 2009, Amazon remotely removed purchased copies of George Orwell's *Animal Farm (1945)* and *Nineteen Eighty-Four (1949)* from consumers' Amazon Kindles after refunding the purchase price. Commentators compared Amazon's conduct to **Big Brother from 1984**. Amazon CEO Jeff Bezos eventually apologised publicly. The FSF argued that this was an example of Amazon's excessive ability to remotely censor information and encouraged Amazon to abolish DRM. Amazon eventually revealed the reason for its removal: the e-books in question were unauthorised duplicates of Orwell's writings that were not in the public domain, and the company that generated and sold them on Amazon's site had no authorization to do so.**

## ▪ 2010-PRESENT



. On February 9, 2010, Ubisoft made formal confirmation that online verification will once again be available in the games Assassin's Creed II, The Settlers 7, and Silent Hunter 5. After being released, Silent Hunter 5 was immediately accused of being hacked, but crack users quickly recognised that only the early levels of the game were playable. You have an incomplete game loaded on your local PC as the Uplay system downloads portions of the game code from Ubisoft's servers as the game progresses. Assassin's Creed II disclosed software that may get through Ubisoft's DRM more than a month after its PC release in the first week of April. By emulating the Ubisoft gaming servers, the spyware achieved this. Later that month, a genuine crack that might totally eliminate the connection need was made public. Around 5% of game owners experienced Uplay server outages in March 2010 as a result of a significant DDoS attack. in relation to their game. There hasn't been another downtime since the company confirmed that owners of the affected games were permitted to download them for free. Lewis C.K., a comedian, offered his concert DVD Live at the Beacon Theatre as a \$5 DRM-free download in 2011. The lone attempt to prevent unlawful copying was a letter underlining the lack of corporate engagement and the direct interaction between artists and spectators. Within the first 12 hours of its release, the movie turned a profit, proving its commercial success. The release will likely be utilised as a case study for the digital market because piracy rates are lower than average. In 2012, the European Court of Justice rendered a judgement in favour of the resale of games with copyrights. In 2012, Digital Rights Management was introduced in India. A DRM-free PDF e-book by the webcomic Diesel Sweeties was released in 2012. . He then released a DRM-free iBook made just for the iPad, which had over 10,000 downloads in only three days. Stevens created the "e-book extravaganza 3000" Kickstarter project to finance the compilation of 3,000 comics created over the course of 12 years into one "giant" e-book that would be distributed for free via the iBook store. on February 8, 2012, with a goal of raising \$3,000 in 30 days, obtained. There are certain webcomic fans who wish to read extensively and are willing to spend some money on pleasant things, according to Steven, who is the DRM-free example for "paying choices" in this scenario. In February 2012, Double Fine used Kickstarter to seek money for its upcoming video game Double Fine Adventure, guaranteeing backers a DRM-free experience. The campaign's original fundraising target of \$400,000 was surpassed in 45 days by raising more than \$2 million. Pre-ordering or subscribing to a service was how crowdfunding worked. Several games were crowdfunded and offered DRM-free versions after Double Fine Adventure's success. Websites that violate copyright and allow e-book downloads include Sci-Hub, BookFi, Book Finder, Library Genesis, and library.nu (which was shut down by court order on February 15, 2012). As of 2013, Blizzard Entertainment and other game

developers placed the majority of their game logic "on the side" or let Game Maker's servers handle it. This method was utilized by Blizzard in their game Diablo III, and Electronic Arts adopted it in their SimCity reboot, albeit its usefulness has been questioned. In 2014, the European Court of Justice determined that DRM circumvention for gaming devices is permissible in certain situations. In 2014, digital comics distributor Comixology permitted rights holders to sell DRM-free downloads. Dynamite Entertainment, Image Comic, Thrill bent, Top Sheet Productions, and Zenescope Entertainment are among the publishers who allow this.

## **2.13. Digital Rights Management (DRM)**

Particularly in the music and film sectors, the growth of digital media and analog-to-digital conversion technology has raised the worries of copyright owners. Digital media files may be copied indefinitely without quality degrading, unlike analogue media, which eventually loses quality with each generation of copies and with normal use. Consumers may easily convert (rip) media that was initially in a physical, analogue, or broadcast form into a digital version for portability or later usage thanks to digital technologies. facilitated far simpler unauthorised dissemination of copyrighted content (digital piracy) when used in conjunction with the Internet and file-sharing programmes.

### **2.13.1. what is digital rights management**

The control of authorised access to digital content is known as digital rights management (DRM). The usage of proprietary hardware and copyrighted works can be constrained by a number of tools or **technical protection measures (TPMs)**, such as access control systems. DRM methods control how copyrighted works (such as software and multimedia material) are used, modified, and distributed as well as how these restrictions are enforced by internal mechanisms in devices. DRM methods include encryption and licencing agreements.

Many nations have laws that make it illegal to go around DRM, talk about getting around it, and make and distribute techniques for getting beyond it. These rules are a component of the Digital Millennium Copyright Act (DMCA) of the United States and the Information Society Directive of the European Union, which is being implemented, for instance, by the French DADVSI.

Many users contend that DRM systems are essential to safeguard intellectual property, just as physical locks stop people from stealing their own possessions. For instance, they can enable licence modalities like rentals and assist copyright holders in preserving artistic restrictions.

Industrial users (i.e., industries) have extended the usage of DRM technology to a variety of hardware goods, including John Deere tractors, Keurig coffee machines, Philips lightbulbs, and mobile device chargers. For instance, tractor manufacturers use DRM to try to stop farmers from doing repairs.

DRM is debatable. There is a lack of proof that DRM can prevent copyright infringement, some real consumer complaints about hassles they experienced, and a concern that DRM is limiting innovation and competition. Additionally, if a needed service is stopped or the DRM system is changed, works may become permanently unavailable. DRM solutions have come under fire for preventing users from creating backup copies or lawfully copying or utilising the content, such as through fair use. The entertainment sector (such as audio and video publishers) frequently employs DRM. Operators of cable and satellite services as well as a number of online retailers, like Overdrive, utilise DRM systems. Apple removed DRM technology from iTunes around 2009. Typical DRM also prevents lending materials out through a library or accessing works in the public domain.

### **2.13.2. How DRM WORK**

Copyright laws guard against the unauthorised transfer, exchange, and modification of digital material, however it can be challenging to police online activity to stop illegal activity. DRM provides a solution by establishing barriers that forbid copying of digital material.

DRM frequently involves the use of codes to prevent content copying or limit the number of devices that may access a product. Apps can be used by content producers to limit what users can do with their materials or encrypt digital files so that only those with the decryption key can access it.

This enables content creators and copyright holders to:

1. Disallow or forbid users from altering or storing their content or products, sending them to others, printing them, or taking screenshots or screen captures of them.
2. Put expiration dates on material to prevent access beyond that period or to limit the number of times someone may see it.
3. Limiting access to media to particular hardware, Internet Protocol (IP) addresses, or regions, such as limiting material to those residing only in the United States.

4. Watermark written materials and images to prove authorship and identity.

IN his article what is digital rights Management? Frederick W. Dingley outlines the following DRM tools and processes that deter illegal use of copyrighted material:

- **Copy protection-** By forbidding people from copying a work, these tactics restrict access. They are often accomplished via encryption, which converts digital material into a code that is only readable by hardware or software that has the necessary unlocking key. Scrambling is another term used to describe this strategy. Digital watermarks, fingerprinting, and characteristics that prevent copying are further forms of copy protection. These include rootkit software.
- **Permission management-** This type of restriction restricts who is allowed to utilise a certain work. Software licences and keys, user authentication and IP authentication protocols, proxy servers, virtual private networks (VPNs), regional limitation or geoblocking, and configuring things to run only on specialised hardware or software are examples of DRM tactics.

Many digital content providers utilise numerous DRM mechanisms to restrict or regulate the usage of their works.

### **2.13.3. Benefits of digital rights management**

- DRM presents a range of benefits to both businesses and individuals — here are just a few.
- Aids in keeping files private. DRM technology can assist firms in securing delicate documents, including contracts, strategic plans, and private employee information. They may use it to restrict access to files, keep tabs on who has accessed them, and stop them from being changed, saved, copied, or printed.
- Prevent unauthorised, unintended usage. DRM technology enables content buyers to follow the associated licencing guidelines, which specify how, when, and even where it can be used, in order to avoid financial penalties for violations.
- Assists in securing revenue sources. Time, money, and skill are all key resources required for content development. DRM technology aids in making sure that content owners get their money's worth.
- Provides possibilities for learning. DRM technology and associated workflows can assist people realise the significance of copyright regulations in their professional and personal life.

- Boost content creation and dissemination. Teams may quickly and easily determine what assets are accessible for use by explicitly defining and verifying the terms for digital material. This eliminates the need to second-guess use rights or contract agreements.<sup>14</sup>

#### **2.13.4.DRM AND DAM**

DRM technology may be integrated with other applications to track and control how content is utilised. **Digital asset management (DAM)** systems, for example, provide a customisable permissioning architecture to maintain secure access to assets and ensure content consumption under internal circumstances. Furthermore, when combined with DRM innovations like Digimarc and FADEL Rights Cloud, this software can further limit users' access to and usage of information that is copyright protected.

#### **2.13.5. Digital Rights Management (DRM) Technology**

The rise of digital media and modern technologies has vastly raised the copyright-owning concerns of organizations and individuals. In just a few clicks of a mouse, many copyrighted images, videos and audio files get downloaded or shared without prior permission. In addition, modern techniques and tools have made it easy to convert media (mostly copyrighted) into various digital forms for easy portability and sharing. This is known as ripping, and the best possible solution to it is using DRM technology. This combines with the internet and hundreds of file-sharing tools (like Torrents) to make unauthorized large-scale distribution of copyright media copies (digital piracy) much easier.

As per a US Chamber of Commerce report, online piracy costs the US economy nearly \$30 billion per year. This is where DRM technology comes into play to control and manage access to copyright materials. DRM technology combines a set of applications and technologies to protect digital media against copyright infringements. DRM aims to protect the original copyright holder rights and restrict the unauthorized copying, editing, or redistribution of digital files and proprietary software. Today **DRM is playing a leading role in data security.**

#### **2.12.6. Why is DRM Technology Used?**

According to the Intellectual Property Office, in the UK alone, piracy and counterfeiting costs the economy £9.3 Billion and causes 60,000 job losses per year. Online piracy costs the US economy almost \$30 billion a year and is responsible for 560,000 industry job losses.

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<sup>14</sup> <https://www.acquia.com/blog/digital-rights-management>

Most people understand that they can't just walk into a shop and take products without paying for them and yet an alarming 70% of online users don't see anything wrong with digital piracy. The global unlicensed software rate is a whopping 42% and between 2015 and 2017 the software industry lost \$46.3 billion in software revenue as a result of software piracy. Ready for some good news? A lot of users are not aware that their software is illegal and according to DataProt, 83% of unlicensed users are willing to pay for software when they discover that they have been using a pirated copy.

Aside from lost revenues, hackers use pirated content to attract unscrupulous consumers in order to trick them into installing malware. Hacked devices can easily spread malware to every visible device within a wi-fi network via router firmware attacks. Internet users often connect to different wi-fi networks as they traverse business and social situations, introducing the malware to multiple networks.

By making it impossible for unauthorised and untrustworthy third-parties to copy or share digital content a Digital Rights Management system not only helps protect copyrighted content, it also helps close the loop on Cyber Crime.

#### **2.14. Types of DRM Technology**

**Several types of DRM technologies exist in the market, each with strengths and weaknesses. Some of the most common types of DRM include:**

**Certainly, here's some additional information on each of the types of DRM:**

- **Encryption-based DRM:**

This type of DRM is one of the most widely used methods for protecting digital content. It encrypts digital content, such as movies, music, or eBooks, to make it unreadable without a special key or license. The encryption can be implemented in various ways, including symmetric key encryption, where the same key is used to encrypt and decrypt the content, and asymmetric key encryption, where two different keys are used. Encryption-based DRM is often used with digital rights licenses, which grant access to the content once the user has been authenticated.

Examples include

- Wide vine by google,
- Fair Play streaming by Apple, and
- Play ready by Microsoft.

- **Watermark-based DRM:**

Watermark-based DRM involves embedding invisible digital watermarks into digital content. These watermarks are unique identifiers that can be used to track and trace the content, making it easier to identify and prosecute piracy.

Watermark-based DRM is often used with other types of DRM, such as encryption-based DRM, to provide an additional layer of protection.

- **Hardware-based DRM:**

Hardware-based DRM involves embedding the DRM technology directly into hardware devices, such as gaming consoles, smartphones, or tablets. This type of DRM is often combined with encryption-based DRM and other access control technologies to prevent unauthorized use of digital content. Hardware-based DRM is generally considered more secure than software-based DRM, as it relies on specialized hardware chips to enforce access controls.

- **License Management**

License management is a type of DRM that manages the distribution and use of digital content by issuing licenses that grant users the right to access and use the content. The license can specify the number of devices on which the content can be accessed, the number of times it can be accessed, and other usage restrictions.

- **Authentication**

Authentication is a type of DRM that verifies the identity of users attempting to access digital content. This can be done through various methods such as username and password, biometric authentication, or digital certificates.

Each type of DRM has its strengths and weaknesses, and content creators and distributors may choose to implement a combination of these technologies to provide the most effective protection for their digital content.

- **PRODUCT KEY**

A product key, which is often a string of alphanumeric characters, can serve as a licence for a specific copy of software. The user is prompted to input the key during the installation or programme start process; if the key is accepted and found to be legitimate (usually by internal algorithms), the user may proceed. To prevent software from being cracked to operate without a product key or from being used with a keygen to produce valid keys, product keys can be paired with other DRM techniques (such as online "activation").

- **MEDATA**

Media that has been purchased occasionally has metadata, which records details like the buyer's name, account information, or email address. The publisher, author, download date, creation date, and any extra comments may also be included. This information is not part of the material, in contrast to a watermark. It is kept up to date independently of the content but is still included in the file or stream.

For example, metadata is utilised in both DRM-free and DRM-restricted material purchased via iTunes. This information is part of the MPEG standard metadata.

- **Software Tampering**

Many retailers incorporate hidden flaws in their software and video games that, when activated, reveal whether the product has been pirated. For instance, the product would covertly connect to the server as soon as the PC was online and the game would purposely start failing. The desktop wallpaper became black and the volume icon was locked when Microsoft Windows XP and Windows 7 were found to be pirated.

- **DRM in streaming service**

Products like Microsoft PlayReady and Xfinity, which are media file copy prevention technologies that include the concepts of domain (a collection of devices belonging to the same user that can share the same licences), embedded licence (licences embedded with the contents of the file), and other concepts, are used by streaming services like Netflix, Comcast, and Amazon Prime. They normally don't care about platforms and are portable.

- a. **Internet connectivity issue**



Many DRM-enabled items need online authentication. However, when there is a problem with the server or the Internet, there are issues with utilising the product.

**b. Bypass Methods for Audio and Video Content**

The 'ripping' technique removes audio and video files from DRM-protected files and converts them to DRM-free ones. As a result, the entire concept of copyright protection collapses here.

**c. Short product and life paying use**

Most of them are not convertible to other technologies or platforms, and some of them are even permanently lost following simple operating system changes, rendering the product useless.

**d. Watermark Removal**

Through third-party software, watermarks are simply deleted.

**c. Purpose Built Hardware**

In order to safeguard the decryption key, encrypted material frequently needs specialised hardware to be created in order to decode and display the content to the user. But there is a risk of the system failing.<sup>15</sup>

**2.15. Shortcomings of DRM technology**

**a) Availability**

Online authentication is necessary for many DRM solutions. People are unable to register for or use the content when a server is down or there is an Internet outage in a particular location. This is especially true for things that need to be constantly connected online, where, for instance, a successful DDoS attack on the server would make the material worthless.

**b) Usability**

DRM-enabled CDs are classified as CD-ROMs since they do not adhere to industry norms. All CD players and personal PCs cannot read CD-ROMs.<sup>16</sup>

**c) Performance**

Performance degradation has been associated with some DRM systems; games that employed Denuvo Anti-Tamper performed better without DRM. However, Final Fantasy XV's

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<sup>15</sup> <https://www.geeksforgeeks.org/understanding-digital-rights-management/>

<sup>16</sup> Lewis, Rita (8 January 2008). "What is DRM and Why Should I Care?". *Firefox News*. Archived from [the original](#) on 14 June 2008. Retrieved 10 July 2008

performance implications under Denuvo were assessed by PC Gamer in March 2018. Despite a little increase in loading times, it was found that Denuvo had no negative gameplay effects.<sup>1718</sup>

#### **d) Robustness**

The logic necessary to decode the content is built into either software or hardware, which makes DRM copy-prevention solutions inherently insecure. An attacker can get hold of this data, decode the content, and copy it in order to get around the DRM.

Hardware DRM techniques are used by satellite and cable operators to distribute their content. Such systems are susceptible to hacking by reverse engineering the protective technique.

#### **e) Analog hole**

A digital signal must be converted to an analogue signal in order to access audio and visual information that is affected by the analogue hole (excluding interactive content like video games). The content can be copied after conversion and then again converted to digital format. Because the vulnerability is built into every analogue display, there is no way to close the analogue hole without external restrictions like regulatory restrictions. Transferring recordings from digital to analogue and back again results in a decrease in recording quality. Most of the time, the HDCP effort to close the analogue hole failed.<sup>1920</sup>

#### **f) Consumer protection**

##### **• Ownership restrictions**

Opponents of DRM claim that it infringes private property rights and limits a variety of routine and lawful user actions. A DRM component, such as that present in a digital music player, limits how it works with regard to specific material, overriding user preferences (for example, preventing the user from copying a copyrighted song to CD as part of a compilation). Doctorow referred to this as "the right to create your own copyright laws."<sup>21</sup>

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<sup>17</sup> ["Denuvo DRM Proven To Hurt Performance Of Games It's Attached To"](#). TheGamer. 29 March 2019. [Archived](#) from the original on 26 June 2019. Retrieved 26 June 2019

<sup>18</sup> Thoman, Peter "Durante" (9 March 2018). ["Tested: Denuvo DRM has no performance impact on Final Fantasy 15"](#). PC Gamer. [Archived](#) from the original on 27 July 2019. Retrieved 26 June 2019

<sup>19</sup> ["MPAA shows how to videorecord a TV set"](#). [Archived](#) from the original on 17 December 2011. Retrieved 4 September 2009.

<sup>20</sup> Sander, Tomas (26 April 2002). [Security and Privacy in Digital Rights Management](#). ISBN 9783540436775

<sup>21</sup> [DRM Is The Right To Make Up Your Own Copyright Laws Archived](#) 19 August 2018 at the [Wayback Machine](#) – [Mike Masnick](#), Techdirt, 6 February 2014

Content that uses a Protected Media Path cannot be played back properly or is prohibited by Windows Vista.<sup>22</sup> DRM limits the ability to make personal copies, provisions for lending copies to friends, provisions for service discontinuance, hardware independence, software independence, lending library use, customer protections against publisher contract amendments, and whether content can pass to the owner's heirs.<sup>23</sup>

- **Obsolescence**

DRM-restricted material may become outdated when standards and formats evolve. A company's prior services can stop being offered if it files for bankruptcy or experiences other corporate changes. Examples include Acetrax Video on Demand,<sup>24</sup> MSN Music,<sup>25</sup> Yahoo! Music Store,<sup>26</sup> and Adobe Content Server 3 for Adobe PDF.<sup>27</sup>

- **Piracy**

DRM regulations are routinely broken; in fact, millions of consumers engage in copyright violations of all kinds, according to the Australia Official Music Chart Survey. The EFF claims that "in an effort to attract customers, these music services try to obscure the restrictions they impose on you with clever marketing."<sup>28</sup>

- **Economic Implication**

### **Trade-offs between control and sales**

"If they're going to pirate someone, we want it to be us rather than somebody else,"<sup>29</sup> said **Jeff Raikes, the former head of the Microsoft Business Division. Richard Rummelt and**

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<sup>22</sup> [What Content Will Be Crippled When Output in Vista?](#). Archived from [the original](#) on 6 October 2010. Retrieved 8 September 2010

<sup>23</sup> [Why the Kindle's DRM is anti-elderly: AARP should fight against it](#) Archived 3 May 2009 at the [Wayback Machine](#), 26 February 2009

<sup>24</sup> ["VOD Service Acetrax Shutting Down, Forcing Customers Through DRM Hoops To Retain Their Purchased Movies"](#). 23 May 2013. Archived from the original on 9 June 2013. Retrieved 23 May 2013.

<sup>25</sup> [Cheng, Jacqui \(22 April 2008\). "DRM sucks redux: Microsoft to nuke MSN Music DRM keys". Ars Technica. Archived from the original on 29 May 2012. Retrieved 22 April 2008](#)

<sup>26</sup> [Anderson, Nate \(24 July 2008\). "DRM still sucks: Yahoo Music going dark, taking keys with it". Ars Technica. Archived from the original on 18 November 2012. Retrieved 18 May 2012](#)

<sup>27</sup> ["Adobe Content 3 Server Discontinued"](#). Archived from the original on 7 October 2011. Retrieved 22 February 2011.

<sup>28</sup> ["The Customer Is Always Wrong". Electronic Frontier Foundation. 25 September 2007. Archived from the original on 5 February 2011. Retrieved 6 February 2011](#)

<sup>29</sup> ["Microsoft executive: Pirating software? Choose Microsoft!"](#). 13 March 2007. Archived from the original on 23 February 2011. Retrieved 6 February 2011.

**Kathleen Conner**<sup>30</sup> presented a similar argument in a previous publication. A further analysis of digital rights management for e-books by Gal Oestreicher-Singer and Arun Sundararajan revealed that easing some kinds of DRM can be advantageous to rights holders since the costs associated with piracy are offset by the rise in value for legitimate consumers. Even if DRM were impenetrable, pirates could still be unwilling to pay, preventing a rise in sales.<sup>31</sup>

Piracy can benefit certain content creators by enhancing customer awareness and distributing and popularising material. This can also improve earnings from other media, such as live performances.

DRM methods, according to mathematical models, can fail on numerous levels.<sup>32</sup> The main failing is that the cost that DRM imposes on a genuine consumer diminishes the buyer's motivation to buy. A perfect DRM would not cause any problems for lawful purchasers. The mathematical models are solely applicable to the music industry.

## **2.17. DRM And the Law**

The common issue at this stage is, "Will I still have fair use rights?" The answer is yes, copyright law will still recognise your fair use rights. However, if DRM is present, you may be unable to use those rights. DRM is a technique for protecting digital works, not an application of copyright law. While the argument over fair use and first sale rights for digital content continues, most DRM system developers take care to omit any mention of copyright law in their products. DRM will enforce licences via software restrictions. Grants that can be conveyed using a computer. The rights or grants under these licences will not seem like the rights we have under copyright law; they will appear like grants that can be articulated in a computer environment. A specific licence may enable you to make copies of up to five pages of a book. Even if you need to copy six pages and believe that doing so is permissible under the idea of fair use, the programme will only enable you to copy five. Where the legislation provides for

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<sup>30</sup> Conner, Kathleen and Richard Rummelt (1991). "Software Piracy: An Analysis of Protection Strategies". *Management Science*. **37** (2): 125–139.

<sup>31</sup> Oestreicher-Singer, Gal and Arun Sundararajan (2004). "Are Digital Rights Valuable? Theory and Evidence from the eBook Industry". *Proceedings of the International Conference on Information Systems*. Archived from the original on 24 July 2011. Retrieved 26 February 2011.

<sup>32</sup> Dinah A. Vernik; Devavrat Purohit; Preyas S. Desai (2011). "Music Downloads and the Flip Side of Digital Rights Management" (PDF). Archived from [the original](#) (PDF) on 7 August 2019. Retrieved 12 July 2012

some leeway and requires us to make decisions, DRM implementations will be quantitative in nature.

Another significant distinction between DRM and copyright law, and one that gives me special concern, is that copyright law establishes a few regulations around copying and performances. It grants the rights holder the only right to produce copies. It specifies several exceptions to that right. However, it does not seek to predict every conceivable usage of a protected work. A digital rights management system works in the exact opposite way. Whereas copyright law is an expression of "everything that is not forbidden is permitted," DRM adopts the opposite approach of "everything that is not permitted is forbidden." Any activity you desire to perform, like as printing from a work, must be explicitly permitted under a DRM system. If no specified right to print exists, the rights management system will not permit printing. Those creating DRM systems consider this as a fundamental necessity for creating safe software, but it has significant ramifications for future usage of protected works. Imagine if a decade or so from now, there is a new feature in our computer systems; let's say computers no longer have screens and instead project displays onto any surface. If the DRM system does not recognise this under the permissions that it presently grants for a specific digital material, it will be impossible to view that resource on this future machine. That implies it may not be able to view it at all since a change in technology is not recognised by the specific restrictions that safeguard the resource. The future combination between DRM and creativity might stifle both innovation and access to certain intellectual resources. Furthermore, as we showed with the Microsoft Reader above, With its absence of a print capability, the method that needs all potential behaviours to be actively authorised is incompatible with the public domain, where nothing is barred.

Numerous laws have been passed across the world that make digital rights management illegal. These regulations make it unlawful to do or even discuss anything related to digital rights management, including the development and distribution of software that enable its usage. These regulations are a component of the Digital Millennium Copyright Act (DMCA) in the US. These regulations are a component of the European Union's Copyright Directive in the EU.

## CHAPTER III

### **INDIAN PERSPECTIVE AND COMPARATIVE STUDY**

#### **3.1. DRM and Legal Background**

The legal framework for DRM is based on copyright law, with the United States of America (USA) and European Union (EU) countries implementing their DRM systems in accordance with the World Intellectual Property Organization (WIPO) Copyright Treaty of 1996 (WCT). In the EU, many countries have provisions in their copyright laws that permit private copying, enabling consumers to make copies of legally acquired content for personal or family use (Rosenblatt, 2006).<sup>33</sup>

In response to the WIPO Copyright Treaty (WCT) and WIPO Performances and Phonograms Treaty (WPPT), India made an amendment to its Copyright Law in 2012, introducing provisions related to Digital Rights Management (DRM). DRM technologies are employed to safeguard online digital content. The adoption of the two internet treaties provided legal protection to DRM in national and international laws. WCT Articles 11 and 12, as well as WPPT Articles 18 and 19, require contracting parties to establish effective measures for protecting online digital content in their domestic legislation. India implemented an amendment in 2012 in accordance with these treaties, but its effectiveness in safeguarding online digital content appears questionable. Additionally, there are unresolved issues concerning DRM and privacy, as well as DRM and Copyright Societies, which require further attention.

Implementing strong laws against the circumvention of DRM frameworks, which could effectively combat piracy, promotes the progress of valuable creative works in developed nations but limits access to information, knowledge, and entertainment in developing countries like India. Due to the interconnected nature of the Internet and the web, it cannot be compartmentalized like physical land, with different rules for different countries based on their development status. Therefore, a framework that benefits the world as a whole should be adopted. Taking into account the interests of both developed and developing nations, it would be beneficial for the global community to have robust legal protection against DRM circumvention. This would support creativity in the arts, which ultimately benefits humanity. Without creation, there would be no information, knowledge, or entertainment. Instead of

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<sup>33</sup> <https://caliber.inflibnet.ac.in/caliber2009/CaliberPDF/57.pdf>

hindering creation altogether, it is preferable to support and encourage it by enforcing anti-circumvention laws in India and worldwide.

India's Copyright Amendment Act of 2012 introduced Sections 65A and 65B to address circumvention of Technological Protection Measures (TPMs) and DRM. Section 65A states that individuals who circumvent effective TPMs, leading to infringement of rights protected by the Act, may face imprisonment of up to two years and a fine. Section 65B stipulates that individuals who knowingly remove or alter rights management information without authority, or distribute, import, broadcast, or make available to the public copies of works or performances when the electronic rights management information has been tampered with, may be subject to imprisonment of up to two years and a fine. Common remedies are also available for similar purposes. These provisions are particularly beneficial to the electronic distribution, music, and gaming industries, as artists utilize DRM systems to protect their work from piracy.<sup>34</sup>

### **3.2. DRM- THE CONCPET**

To achieve this, content providers typically utilize digital keys or licenses. These are unique codes assigned to individual users or devices upon purchasing or licensing the content. Whenever a user intends to access or play the content, they must contact the DRM licensing servers and request permission to do so. In response, the DRM licensing authority or server supplies a key or license that can be used to unlock and interact with the content. This provides a basic explanation of how DRM operates. For a more comprehensive understanding of the foundational components of DRM, including **EME, CDM, AES, CENC**, and other essential concepts, it is recommended to refer to this article.

#### **3.2.1. The differences between rights management and content management**

It is proposed that making a distinction between the procedures and technology used for managing material in a machine-based environment and those used for controlling the rights in that content will aid in understanding DRM. Even though the processes are intimately intertwined in terms of structure and functionality, they may be distinguished from one another analytically. Understanding and using that distinction is crucial to the strategy used in this investigation.

Although the term "content" is deservedly despised by many in the creative sector, it has been frequently employed in discussions and descriptions of media and communications

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<sup>34</sup> <https://ijcrt.org/papers/IJCRT2108111.pdf>

technologies. The source mentions several types of Information that varies in the degree to which it is protected by intellectual property laws, subject to other legal regulations, and unprotected. The expression "content" undoubtedly includes the kind of matter traditionally are often covered by copyright or neighbouring rights protection, and that is how the term is used in this context.<sup>35</sup>

The term "information" encompasses all forms of data, irrespective of copyright protection. This research highlights the significance of grasping both content management and rights management, which are frequently used interchangeably. Both terms seek to facilitate a holistic comprehension of safeguarding data and its significance in content management and rights management. It is important to interpret these two expressions in the following manner:

- **Content management (CM)** is a set of processes and technologies that supports the collection, managing, and publishing of information in any form or medium. When stored and accessed via computers, this information may be more specifically referred to as digital content, or simply as content. Digital content may take the form of text (such as electronic documents), images, multimedia files (such as audio or video files), or any other file type that follows a content lifecycle requiring management. The process of content development and management and is complex enough that various commercial software vendors (large and small), such as Interwoven and Microsoft, offer content management software to control and automate significant aspects of the content lifecycle.<sup>36</sup>
- **RIGHTS MANAGEMENT** is a term for control systems that allow a rights owner to exert control over information immediately. It enables publishers of information to control what recipients can do with it in order to prevent intellectual property theft and stop unauthorized sharing/ piracy.

### **3.3. WIPO Internet treaties and protection of Digital rights management**

Numerous global treaties and agreements address the subject of Digital Rights Management (DRM) and the protection of intellectual property in the digital domain. Here are a few significant examples: The international framework for safeguarding intellectual property in the digital context is based on two WIPO internet treaties, namely the WIPO Copyright Treaty and WIPO Performances and Phonograms Treaty, established in 1996. It was recognized during the

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<sup>35</sup> S.R. Subramanya and Byung K. Yi, "Digital Rights Management", 0278-6648



development of WCT and the WPPT that “the answer to the problems with the machine is in the machine”<sup>37</sup>. This answer consists of technological protection measures like encryption of the copyrighted material and electronic rights management information or digital identifiers which is collectively called by the treaties as DRM.

Article 11 of the WIPO Copyright Treaty (WCT) states that contracting parties must establish sufficient legal protection and effective legal remedies against the circumvention of effective technological measures voluntarily employed by authors to safeguard their rights and to restrict unauthorized acts related to performances or phonograms. The same provisions are reiterated in Article 18 of the WIPO Performances and Phonograms Treaty (WPPT). Additionally, Article 12 of the WCT focuses on the protection of Rights Management Information (RMI) and requires parties to provide effective legal remedies in cases of intentional tampering or alteration of such information. The treaties provide a comprehensive definition of RMI, which includes information identifying the work, the author, the owner of any rights in the work, or details about the terms and conditions of use.

The TRIPS Agreement, which establishes minimum standards for intellectual property protection, does not explicitly address the protection of DRM designs. Therefore, Articles 11 and 12 of the WCT are intended to provide enhanced protection beyond the TRIPS requirements. The WIPO Internet Treaties aim to establish a legal framework for protecting technological means of controlling access or circumvention by third parties for uses not authorized by the copyright holder.

The language used in Article 11 of the WCT is ambiguous and may lead to confusion. To qualify for protection under this article, the technological protection measures (TPMs) must be effective. The term "effective" should not be interpreted to mean that TPMs that can be circumvented are ineffective, as that interpretation would contradict the purpose of the article, which is to provide protection to anti-circumvention techniques. Instead, "effective" should be understood to refer to specific information or processes necessary to access the protected work or carry out acts covered by copyright protection, which are only available with the authorization of the copyright owner. Thus, TPMs are effective when they can control the use of a protected work through access control mechanisms such as encryption, scrambling, or other copy control mechanisms that achieve the desired protection.

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<sup>37</sup> See Notes on WCT and WPPT, available at [www.wipo.int](http://www.wipo.int)

Some argue that not only circumvention but also preparatory activities related to circumvention should be regulated under Article 11. Circumvention often occurs at the individual level in households, making it challenging for enforcement authorities to provide effective legal remedies at all times. Considering the complexity of circumvention technology, it typically involves the acquisition of circumvention devices or services from specialized markets outside the private sphere. Governments can regulate these markets to restrict the supply of circumvention devices and software, fulfilling their obligations under the WCT. Therefore, when framing DRM legislation, parties to the WCT should establish a regulatory mechanism to control and restrict preparatory activities related to circumvention. Additionally, it is possible for parties to impose fair use limitations for circumvention of TPMs by invoking Article 10 of the WCT<sup>38</sup>.

### **3.4. TECHNOLOGICAL PROTECTION MEASURES**

When a digital product is made available online, anyone worldwide can freely download and use the product, incorporate it into their own creations, and distribute it globally, potentially competing with the original creator. This highlights how technology enables unauthorized exploitation of someone else's digital work. To combat this loss of control in the digital environment, the solution lies in technology itself. The problems caused by technology need to be addressed with technological solutions. As Charles Clark stated, "the answer to the machine is the machine." Various technological protection systems have been developed, including anti-copy devices, access control, electronic envelopes, proprietary viewer software, encryption, passwords, watermarking, electronic lamination, user authentication, usage monitoring, and encapsulating copyrighted works in tamper-resistant electronic envelopes. Over the years, several industry and technology initiatives have emerged to establish standards in different sectors, although there are currently no universally accepted standards for technological protection measures. Technology is needed not only to prevent theft and misuse of creative works but also to detect infringements and misappropriations. In the future, it remains to be seen whether "software agents" will search the global network for authorized and unauthorized use of works and communicate relevant information to rights holders. For example, the music

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<sup>38</sup> 4 Under Article 10(1) of the WCT, Contracting Parties may, in their national legislation, provide for limitations and exceptions to the rights granted to authors of literary and artistic works "in certain special cases that do not conflict with a normal exploitation of the work and do not unreasonably prejudice the legitimate interests of the author."

industry has developed copy-proof compact disc (CD) technology that prevents CDs from being played on computer disc drives. Copy-proofing employs various techniques such as introducing errors in the CD's data to allow playback on standard CD players but not on CD-ROM drives, or disguising audio files as data files, rendering them unrecognized by CD-ROM drives<sup>39</sup>.

### **3.4.1 TREATY PROVISION ON TPMs**

Article 11 of the 1996 WIPO Copyright Treaty and Article 18 of the WIPO Performances and Phonograms Treaty (the WIPO Copyright Treaties) mandate that participating nations must ensure sufficient legal protection and effective legal remedies against the circumvention of technological measures employed by copyright owners to safeguard their works<sup>40</sup>.

### **3.4.2. Rights Management Information**

**Information Rights Management (IRM)** is a form of IT security technology used to protect documents containing sensitive information from unauthorized access. Unlike traditional Digital Rights Management (DRM) that applies to mass-produced media like songs and movies, IRM applies to documents, spreadsheets, and presentations created by individuals. IRM protects files from unauthorized copying, viewing, printing, forwarding, deleting, and editing.

However, in order to understand Information Rights Management, its uses and benefits, it's important to understand Digital Rights Management and how it relates to IRM.

### **3.4.3. TREATY PROVISION RMI**

Article 12 of the WIPO Copyright Treaty (WCT) and Article 19 of the WIPO Performances and Phonograms Treaty (WPPT) both contain similar provisions regarding the responsibilities of contracting parties concerning Rights Management Information (RMI).

1. If a party knowingly or with reasonable grounds to believe that it will induce, enable, encourage, or conceal an infringement of any rights protected under these agreements or the Berne Convention, and intentionally undertakes any of the following actions, that party shall be entitled to appropriate and effective legal remedies:
  - a. without authorization, removes or alters any electronic rights management information, it is entitled to seek adequate and effective legal remedies.

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<sup>39</sup> <https://egyankosh.ac.in/bitstream/123456789/7676/1/Unit-14.pdf>

<sup>40</sup> <https://www.eff.org/pages/technological-protection-measures-draft-ftaa>

- b. If a party knowingly distributes, imports for distribution, transmits, or communicates works, copies of works, performances, copies of permanent exhibits, or phonograms to the general public without authorization, while being aware that the electronic rights management information has been removed or altered, they shall be entitled to appropriate and effective legal remedies.

The term "Rights Management Information" pertains to information that identifies the work, the author, the owner of any rights in the work, the performer, the performance, the manufacturer of the phonogram, or any other person involved in the work. It also encompasses information about the terms and conditions of use, as well as any codes or figures representing such information. These elements are associated with a copy of the work, fixed performance, or phonogram, or are presented in connection with the communication or making available of the work, fixed performance, or phonogram to the public.

With respect to Article 12 of the WIPO Copyright Treaty (WCT), it is understood that references to "infringement of any copyright covered by this agreement or the Berne Convention" encompass both specific rights and compensatory rights. Furthermore, it is expected that contracting parties will not utilize this article as a justification for creating or enforcing rights that would impose restrictions not permitted by the Berne Convention or the WCT, which could hinder innovation in the market or limit the exercise of rights granted by the treaty.

The agreed-upon explanation of Article 12 of the WCT is also applicable to Article 19 of the WIPO Performances and Phonograms Treaty (WPPT), with the necessary adjustments made.

### **3.5. Digital Rights Management and Domestic Legislations**

WIPO internet treaties were signed by a handful of nations and were supposed to make necessary changes in their domestic legislations before ratifying the treaty. To comply with the WIPO treaties both Europe and US came up with new legislation which were on the same line of Internet treaties. US had enacted the much controversial US Digital Millennium Copyright Act (DMCA) in 1998 introducing anti circumvention laws into their domestic sphere and European Union came up with the European Union Directive on harmonisation of certain aspects of Copyright and Related Rights in Information Society (EUCD) in 2001. Although with differences, both these legislative efforts are intended to strike a balance between interests of copyrights holders and legitimate interests of user, to have access to copyrighted material. At the heart of both of these Acts, are the provisions conferring liability upon persons

circumventing any of the DRM design without authorized permission from the copyright owner.

### **US Digital Millennium Copyright Act, 1998**

Digital Millennium Copyright Act is the United States copyright law which implements the internet treaties of WIPO. It imposes criminal liability on persons who produce and disseminate technology or devices intended to circumvent any of the technological protection measures included by the copyright holder. Section 1201(a)(1) of the US DMCA, 1998 provides that no person shall circumvent a technological measure that effectively controls access to works protected by it. Section 1203 also imposes criminal liability on persons who produce and disseminate technology or devices intended to circumvent any of the technological protection measures included by the copyright holder. Section 1201(b)(2) also prohibit the manufacture, import or offer to public of any technology, products, service, device, components or any other part which is basically designed or commercially significant or marketed for circumvention of a technological measure used to protect a copyrighted material.

Section 1201(c) and (d) of DMCA also explains the situations in which a person shall not be liable for circumvention of TPM like fair use provisions and exemption of non-profit libraries or educational institutions which gains access to a copyrighted work in good faith to acquire a copy of work in normal conduct of business. The inclusion of such exception from criminal liability in cases of circumvention in specific circumstances seems to be in balance with the interests of copyright holders and the users. Besides in 2010 various exceptions were added to the list of exception through certain administrative measures<sup>41</sup>, which allows Motion pictures on DVDs that are lawfully made and acquired and that are protected by the Content Scrambling System when circumvention is accomplished solely in order to accomplish the incorporation of short portions of motion pictures into new works for the purpose of criticism or Educational uses by college and university professors or when circumvention is initiated by the owner of the copy of the computer program solely in order to connect to a wireless telecommunications network and access to the network is authorized by the operator of the networks etc<sup>42</sup>. If such a provision is not included and circumvention of TPM is criminalized then even legitimate use of protected works would be tampered.

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<sup>41</sup> See Exemption to prohibition on circumvention of copyright protection systems for Access control technologies

<sup>42</sup> 6 See <http://www.copyright.gov/1201/2011/>

Section 1202 of DMCA provides for protection of rights management information. It provides that any person who intentionally removes or alters any right management information or distributes or imports for distribution any copies of works from which rights management information is removed is liable for civil remedies from a court of competent jurisdiction under section 1203.

The US Copyright Act provides effective legal remedies under section 1203 and based on these provisions US courts have imposed criminal and monetary liability upon individuals and legal persons who circumvent any of the DRM design. In August 2009, the DVD copy control association claimed and succeeded a law suit against real networks for circumventing their anticircumvention measures like ARccOS protection and Rip Guard and allowing users to copy from DVDs and store it in hard drives<sup>43</sup>. Also, in *Sony entertainment America v Game masters*<sup>44</sup>, the court found that even the distribution of game enhancer device whose primary function was to circumvent a code limiting the use to such a limited territory would be prohibited under section 1201(a)(2).

### **3.6. Digital Rights Management and India**

India is not a signatory to WIPO internet treaties and is under no obligation to offer protection to DRM designs. Indian Copyright Act as it stands today, does not have any provisions which deal with Digital Rights Management (DRM). By adding three parts, section 2(xa), 65A, and 65B, to the parent Act, the proposed Copyright Amendment Bill 2010 seeks to remedy this problem and, in doing so, seeks to provide substantial protection for intellectual property. This might be interpreted as an effort to enshrine the hotly contested and sought anti-circumvention regulations in Indian law.

The definition of the term, Right management information, in section 2(xa) is in line with Article 12 of the WIPO Copyright Treaty and Article 19 of WIPO performers and phonograms Treaty, except that the proposed definition seeks to avoid the device or procedure which is intended to identify the user.

Section 65A of the proposed Bill introduces the concept of technological protection measures, which are measures used to enforce restrictions on the use of copyrighted material and Section 65B introduces the concept of protection of right management information. Criminal and monetary liabilities are introduced against any person who removes/alters / circumvents the

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<sup>43</sup> [www.applieddiscovery.com/ws\\_display.asp?filter...item\\_id](http://www.applieddiscovery.com/ws_display.asp?filter...item_id)

<sup>44</sup> See Hugh C. Hansen *The Implementation of USDMCA the practical experience for description of case law.*

technological measures or right management information applied for the purpose of protecting any of the rights conferred by the copyright Act, with the intention of infringing those rights.

The section lays down certain exceptions where a person can be excluded from the liability for circumventing technological measures like doing an act which is not expressly prohibited under the Copyright Act or doing encryption research or conducting a lawful investigation or circumventing technological measures for identification or surveillance of a user or taking measures in the interest of the national security <sup>45</sup>. Besides 65A or 65B would applicable only if a person tries to tamper with the encryption with the intention of infringing the copyright and thus any act done under section 52 of the copyright would not invite the provisions of section 65A or 65B.

The basic flaw of the manner in which these sections are drafted is that they failed to make a regulatory mechanism governing the preparatory activities rendering the circumvention acts like manufacture or import or offer for service of any devices or technology that helps in circumvention of any DRM design. Efficiency of enforcement mechanisms in finding evidence to prove for infringement of DRM technique in a developing country like India would be a point of concern on the contrary making a regulatory mechanism for cutting the supply lines would have been much easier.

### **3.7. THE COYRIGHT AMENDMENT ACT, 2012**

It's been a little over two years since the Copyright Act, 1957 was extensively amended in 2012 with far-reaching ramifications for all categories of stakeholders. The amendments purported to introduce a level playing field for different categories of right holders in the entertainment industry, recognise the access needs of users of the copyrighted works in general and visually impaired population of the country in particular, align the copyright regime of the country with rapid advances in technology and streamline copyright enforcement and administration. To gauge the influence of the amendments on copyright regime in India as well as to see if their implementation so far has been in sync with the legislative intent, this article seeks to evaluate the Copyright (Amendment) Act, 2012 (hereinafter referred to as the Amendment Act) as well as their working.

### **3.8. The Reason Behind the Copyright Amendment Act,2012**

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<sup>45</sup> See section 65A(2)

- **Technological Advancements:** The rapid development of technology, particularly in the digital realm, has posed new challenges for copyright holders and users. Copyright amendment acts may aim to update the existing legislation to address issues related to digital piracy, unauthorized distribution or reproduction of copyrighted works, and the protection of digital rights.

**Balancing the Rights of Copyright Holders and Users:** Copyright laws often strive to find a middle ground between protecting the rights of copyright holders and serving the interests of users and the public. Amendments to these laws may seek to further refine and clarify this balance by incorporating provisions related to fair use or fair dealing, exceptions and limitations for educational or research purposes, and safeguarding users' rights in the digital realm.

- **Fulfilling International Obligations:** Many countries have signed international treaties and agreements concerning copyright protection, such as the Berne Convention and TRIPS. Amendments to copyright laws may be necessary to ensure compliance with these international obligations and harmonize national legislation with global copyright standards.

- **Expanding the Scope of Protected Works:** Existing copyright laws may not cover certain forms of creative works adequately or fail to address emerging modes of expression. Amendments to copyright laws may aim to broaden the range of protected works to encompass new types of creations, including computer programs, databases, or digital content.

- **Striking a Balance Between Innovation and Copyright Protection:** Copyright laws play a pivotal role in fostering creativity and innovation. However, it is crucial to maintain a balance that encourages innovation without impeding technological advancements. Amendments may focus on refining the copyright framework to promote innovation, accommodate new business models and practices, while ensuring adequate protection for creators and rights holders.

- **Addressing Societal Needs:** Copyright amendment acts can also be driven by societal needs and evolving public interests. For instance, provisions may be introduced to address accessibility issues for individuals with disabilities, preservation of cultural heritage, or facilitate the use of copyrighted works in education and research.



## **Hassles in Incorporating Technological Protection Measures in Indian copyright Regime**

Serious concerns have been raised by various organizations and individuals regarding India's efforts to introduce anti-circumvention laws through an amendment to Section 65 of the Copyright Act. Firstly, it is argued that since India is not a signatory to WIPO internet treaties, there is no obligation for India to introduce such a provision in our copyright laws in the absence of any public demand for it. Many scholars have repeatedly pointed out that the inclusion of this provision is primarily due to pressure from the United States and an attempt to secure favorable ratings in the US Special 301 report.

Under these provisions, copyright owners are granted the right to implement any digital rights management (DRM) design, including technological protection measures (TPMs). However, these sections do not address any responsibilities on the part of the copyright holders. This situation could render copyrighted material inaccessible, even for uses permitted by the copyright act under Section 52 and the proposed Section 65A. The entire premise of these sections is based on the assumption that everyone has access to circumvention technology, which is far from the truth. Therefore, it is feared that without a provision requiring copyright holders to unlock digital locks upon a request in support of the fair use clause, this section could lead to restricted access to copyrighted materials.

While these concerns were brought to the attention of the parliamentary standing committee, it took a stance in favor of the proposed amendments in the copyright amendment bill. The committee acknowledged that India has yet to encounter significant issues with circumvention technology due to the limited availability of penetration techniques in the country. It suggested that it would be better to have limited legislative guidelines regarding a topic with which we are not well-acquainted and allow the judiciary to develop appropriate guidelines based on practical applications. The committee also advised the government to closely monitor the impact of this provision and make necessary corrections whenever required<sup>46</sup>.

### **3.9. LAWS different countries**

The World Intellectual Property Organisation is in favour of the World Intellectual Property Organisation Copyright Treaty (WCT), which calls on all countries to pass legislation to prevent

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<sup>46</sup> See paragraph 20.11 of parliamentary standing committee report on copyright amendment bill 2010.

DRM circumvention. The WIPO Internet Treaties only call for "effective legal remedies" and do not specify any specific criminal penalties.<sup>47</sup>

## **China**

The Interim Regulations of China purport to control digital material. China asserts to protect intellectual property rights, but the World Trade Organisation (WTO) "determined that China's copyright laws do not provide the same efficacy to non-Chinese nationals as they do to Chinese citizens, as required by the Berne Convention" and that "China's copyright laws do not provide enforcement procedures so as to permit effective action against any act of intellectual property rights infringement."

## **European Union**

To obtain more extensive information about this subject, you may refer to the Copyright law of the European Union. The European Union follows the guidelines set forth by its Information Society Directive and implements the regulations of the World Intellectual Property Organization (WIPO). Subsequently, the European Parliament has instructed member states to criminalize the infringement of international copyright laws for commercial intents. Violations can result in penalties such as fines or imprisonment, although patent rights and copying for personal, non-commercial purposes are exempt. It is permissible to resell copyrighted games, and in certain situations, it is legal to circumvent digital rights management (DRM) on gaming devices, provided that such actions do not interfere with prohibited activities.<sup>48 49</sup>

## **India**

India has not ratified the WIPO Copyright Treaty or the WIPO Performances and Phonograms Treaty. However, its Copyright Act offers safeguards for digital content by making it illegal to

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<sup>47</sup> Urs Gasser, 'Legal Frameworks and Technological Protection Measures: Moving towards a Best Practices Model' Research Publication No. 2006-04 at Berkman Klein Center for Internet and Society (Harvard) <available 3at: [https://courses.edx.org/c4x/HarvardX/HLS1.1x/asset/Urs\\_Gasser.pdf](https://courses.edx.org/c4x/HarvardX/HLS1.1x/asset/Urs_Gasser.pdf) Archived 9 August 2017 at the [Wayback Machine](#) last accessed 17 May 2018>

<sup>48</sup> ["Europe's Highest Court Says DRM Circumvention May Be Lawful in Certain Circumstances"](#). *Techdirt*. 23 January 2014. [Archived](#) from the original on 16 October 2014. Retrieved 8 October 2014

<sup>49</sup> ["DRM Circumvention May Be Legal, European Union Court Rules"](#). *The Escapist*. 23 January 2014. [Archived](#) from the original on 12 October 2014. Retrieved 8 October 2014

bypass technical protections or distribute unauthorized copies, carrying potential prison sentences as punishment. The concept of fair use is not explicitly covered in the Act.<sup>50</sup><sup>51</sup>

## **Israel**

Israel is not a signatory to the WIPO Copyright Treaty. Israeli law does not expressly prohibit the circumvention of technological protection measures.<sup>53</sup>

## **United States**

### **Digital Millennium Copyright Act, main**

The Digital Millennium Copyright Act (DMCA) governs US safeguards. It makes illegal the development and distribution of tools that enable users to get around copy limitations. When circumvention is required to work with other software, reverse engineering is specifically allowed, offering a safe harbour.

It is not specifically forbidden to use open-source software to decode protected information. Decryption carried out to ensure compatibility between open-source operating systems and proprietary systems is safeguarded. It is forbidden to distribute such software with the intent to breach copyrights or to incite others to do so.

DMCA has been largely ineffective<sup>54</sup>. Software for circumvention is widely accessible. But others who want to keep the DRM systems in place have tried to utilise the Act to limit the dissemination and creation of such software, as with DeCSS. There is a research exception under the DMCA, however there are restrictions that have caused confusion in that community.

The DMCA may be broken by cryptoanalytic research, although this is still up for debate.

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<sup>50</sup> AGARWAL, DEVIKA AGARWAL & RADHIKA (4 May 2016). "[Needless pressure to change copyright laws](#)". @businessline. [Archived](#) from the original on 26 September 2018. Retrieved 16 May 2018

<sup>51</sup> Zakir Thomas, 'Overview of Changes to Indian Copyright Law' [2012] 17 Journal of Intellectual Property Rights pp 324–334, 332 <available at [http://nopr.niscair.res.in/bitstream/123456789/14460/1/JIPR%2017\(4\)%20324-334.pdf](http://nopr.niscair.res.in/bitstream/123456789/14460/1/JIPR%2017(4)%20324-334.pdf) [Archived](#) 19 August 2019 at the [Wayback Machine](#) accessed 16 May 2018

<sup>52</sup> Arul George Scaria, 'Does India Need Digital Rights Management Provisions or Better Digital Business Management Strategies?' [2012] 17 Journal of Intellectual Property Rights pp. 463–477, 465 <available at: <http://nopr.niscair.res.in/bitstream/123456789/14771/1/JIPR%2017%285%29%20463-477.pdf> [Archived](#) 16 May 2018 at the [Wayback Machine](#) last accessed 16 May 2018

<sup>53</sup> "[Israel Technology Law Blog](#)". israeltechnologylaw.wordpress.com. [Archived](#) from the original on 29 April 2021. Retrieved 16 February 2022.

<sup>54</sup> Doctorow, Cory (24 March 2007). "[DMCA's author says the DMCA is a failure, blames record industry](#)". [Archived](#) from the original on 23 June 2011. Retrieved 12 January 2011.

## **CHAPTER IV**

### **DIGITAL CHALLENGE TO COPYRIGHT**

The advancement of Digital Technology has been one of the finest creations of the human mind. Technology has opened its gates to a wide range of possibilities in various areas like media, entertainment, communication, advertisements and education. However, the easy access to materials available on the Internet has posed a great concern for Copyright infringement. Copyright is one of the most important Intellectual Property Right which denotes the rights possessed by the creators for literary and artistic works. It includes works from books, paintings, computer programs, films, database and maps, to name a few. Digitalisation has made it considerably easy to copy, replicate and sell the works of a copyright owner without his permission and detection of such infringement becomes difficult. This has posed a great threat to the right of the copyright owners or creators.

#### **4.1. Challenges faced by Copyright in Digital World**

- **Copyright & Internet**
- **Multimedia Work**
- **Software**
- **Social Media**

#### **4.2. Copyrights and Internet**

The internet has posed a significant challenge to copyright enforcement for a considerable period. The content found online varies in terms of the level of copyright protection it possesses. Copyrighted materials on the internet encompass a wide range of works such as news articles, stories, images, graphics, e-books, screenplays, videos, and more. The vast amount of information available on the internet makes it challenging to determine whether a particular work is a duplicate or a copy of a protected piece. There is a prevalent misconception that accessing information from the internet's public domain allows for unrestricted copying. However, this is not the case unless the information has been explicitly made available by the government, the copyright term has expired, or the copyright holder has relinquished their rights.

### **4.3. Infringement of Copyright in Cyberspace includes**

- **Downloading and Uploading:** The internet has provided a means to download software or files onto one's computer's hard disk. Downloading involves making a copy or reproducing materials found online. However, there are certain restrictions that must be followed, and failure to comply with them can lead to offenses.

- **Derivative Work:** When two or more programs are compiled to create a derivative work, it can constitute an infringement or violation of copyright.

- **Hot-linking:** Hot-linking refers to displaying an image on a website by linking it to another website hosting that image. This practice of hot-linking or linking can potentially infringe upon the rights of the copyright owner.

- **Audio-Video Works:** Copying an audio or video file through companies engaged in Peer-to-Peer file sharing (P2P) of digital music can also be considered a violation.

- **Multimedia Work:** The concept of multimedia encompasses a wide range of materials, including text, sounds, audio, video, images, graphics, presentations, live videos of speeches, and performances, among others. Copyright protection is generally available for multimedia under various categories such as literary (software programs), artistic (images), cinematographic films (films or videos), dramatic (plays), sound recording (musical works), and photographs. The diverse range of rights available to copyright owners in the realm of multimedia can make it challenging to protect the rights of creators and owners.

- **Infringement in Multimedia Involves:**

- Copying the works of a creator without their permission.
- Distributing multimedia products for purposes other than education.
- Creating prints of literary or artistic works without prior permission from the creators.
- Dubbing and selling sound recordings through any multimedia product without the creator's prior permission.

Computer software comprises computer programs, procedures, and documentation that carry out tasks on a computer system. Copyright infringement often occurs due to software piracy, which involves unauthorized copying and distribution of copyrighted software. Software piracy can manifest in various ways, such as:

- **Creating copies of software and selling them.**
- Creating copies of software and exporting them.
- Renting out software.
- Selling computer hardware devices with pre-installed or pre-loaded pirated software.
- Copying software programs using CD-R technology.

#### **4.5. Social Media**

In recent times, social media platforms have become prominent means of connecting people worldwide. However, these platforms also facilitate the sharing of copyrighted works. The widespread practice of sharing materials, such as images and photographs, on social media has led to significant copyright infringements. Many people mistakenly believe that all content posted on social media is free to use, often due to a lack of awareness regarding the presence of copyright in such works. Copyright violations on social media platforms can take various forms, including:

- Reposting, saving, or sharing works that are protected under copyright.
- Reposting and falsely claiming ownership or creation rights over already protected works.
- Using content available on the platform without the prior permission of the owner.

#### **4.6. Fair Dealing in Digital Environment**

The protection of copyright for creators or owners must align with public rights, ensuring that one person's human rights are not used to restrict those of another. This has led to the development of concepts such as Fair Dealing or Fair Use in copyright law. As stated in Article 9(2) of the Berne Convention from 1883, which has been a key convention in this area, "It shall be a matter of legislation in the countries of the union to permit the reproduction of such work in certain cases, provided that such reproduction does not conflict with the normal exploitation of the work and does not unreasonably prejudice the legitimate interests of the author." Similar to this, Article 13 of the TRIPS agreement stipulates that restrictions or exceptions to exclusive rights shall only apply in unique circumstances that do not conflict with the work's usual utilisation and do not unfairly hurt the rights holder's legitimate interests. The regulations governing copyright exceptions vary from nation to nation. Copyright exceptions are known as

"FAIR USE" in the United States, and they are described in Section 107 of the Copyright Act, which states that fair use of copyrighted content does not constitute infringement.

While Directive 2012/28/EU defines guidelines for orphan works (works whose owner cannot be recognised), Directive 2001/29/EU lists a number of mandatory and voluntary exclusions and directives. Acts that do not constitute copyright infringement in India are covered by Section 52 of the Copyright Act, 1957. Some behaviours in the digital sphere are not regarded as infringements:

Conducting research or study and making copies of material available on the internet solely for educational purposes.

A teacher using content from a film to make satirical points during a class.

- Accessing a journal from a university website or library.
- Making backup copies on a hard drive for temporary protection against loss, destruction, or damage.
- Observing, studying, or testing the functioning of a computer program to determine the underlying ideas and principles while performing necessary acts for the program's operation.
- Making copies or adaptations of a computer program from legally acquired copies for non-commercial purposes.
- Using CDs, DVDs, pen drives, or other multimedia devices to play songs in an enclosed room or hall for the common use of residents or as part of non-profit club activities.
- Publishing speeches delivered in public.
- Reproducing or publishing electronic reports of committees, councils, bodies, or institutions established by legislative acts or by the state or central government.

#### **4.7. Remedies against infringement of Copyright in Digital Domain**

The threats of infringement of Copyright in the digital domain have given rise to certain preventive measures which ensure that the rights and interest of the owner or creators are protected. Some of the important remedies available are:

- **Blockchain Technology**

A extremely secure decentralised public ledger is used to record peer-to-peer transactions. The participants to a transaction agree on its specifics, which are subsequently put into a block of digital data that is either individually signed or recognisable. It is seen as a great instrument to handle the copyright issue in the digital realm due to the way it works.

- **Digital Watermarks**

One of the simplest methods to safeguard the author's work is through the use of copyright, which enables the owner to track down and stop the reproduction of their creations. In this method, a watermark is included into the author's original work to help identify any unauthorised copies.

- **Access control and copy control**

It is a software which enables a user to check the creator on free or illegal use of his work.

### **Copyright in the Digital Domain is protected by international agreements and conventions**

The influence of digitalization on society is significant. However, just as it is true that with great inventions comes great threat, similarly, digitalization, while having played a significant role in changing the dynamics of society, has also given rise to several other problems like infringement of rights of a creator or owner of the work (in the context of copyright) through various means in digital world. International bodies like the World Intellectual Property Organisation (WIPO) have been instrumental in preventing the violation of these rights.

Some of the significant international treaties and conventions are listed below:

#### **4.8. World Copyright Treaty 1996**

It is a specialized agreement under the Berne Convention that addresses the protection of works in the digital environment. It grants three economic rights in addition to those recognized by the Berne Convention of 1885: the right to distribution, the right to rental, and the right to communication to the public. The treaty ensures protection for digital works for a minimum period of 50 years. It also specifically deals with two subject matters that are eligible for copyright protection of Computer Programs

- Collection of information (databases)



#### **4.9. WIPO Phonogram Treaty Performance, 1996**

focuses on two categories of beneficiaries in the digital world: performers, such as actors, singers, and musicians, and producers of phonograms. It establishes economic rights for performers, including the rights of distribution, rental, and communication to the public. For phonogram producers, the treaty grants economic rights of reproduction, distribution, rental, and making available. The treaty provides protection for performers and phonogram producers for a minimum period of 50 years.

#### **4.10. Copyright in Digital Era with special reference to India**

is governed by the Copyright Act of 1957. The act has undergone several amendments over time to adapt to the evolving needs of society and ensure protection for creators of works. The primary objective of the act is to safeguard the works of creators and copyright owners from unauthorized use. The Copyright (Amendment) Act of 2012 is considered a significant development in this regard, aiming to align the act with the World Copyright Treaty of 1996 and the WIPO Performances and Phonograms Treaty of 1996. The 2012 amendment extended copyright protection provisions to digital works and introduced penalties for infringers, provisions for rights management information, liability of internet service providers, and statutory licenses for cover versions and broadcasting organizers. It also aimed to ensure fair distribution of royalties among creators and copyright owners. The law includes exceptions for certain acts that do not constitute infringement, with Section 52 of the act specifically addressing the Doctrine of Fair Use. This section is in accordance with the Berne Convention of 1885 and the TRIPS Agreement of 1995. The Indian judiciary has played a crucial role in safeguarding the rights of copyright owners in the digital era. Notable judicial pronouncements related to copyright protection in the digital world, such as the *UTV Software Communication Ltd v/s 1337x and ors* case, have further clarified legal aspects in this context.

#### **UTV Software Communication Ltd v/s 1337x and ors on 10th April 2019-Delhi HC**

##### **➤ Facts of the Case-**

The plaintiff in this case, UTV Software Communication Ltd., is a company that produces and distributes cinematographic films across the world, including in India. The defendants included 30 websites, some of which were operated by John Doe, as well as the Department of Telecom,

the Ministry of Electronic and Information Technology, and other ISPs. The plaintiff claimed that the defendants' websites housed and allowed access to their copyrighted work, infringing on the plaintiff's copyright.

In this case, the court designated Mr. Hemant Singh as a "amicus curiae" to help it decide the legal issues at hand.

## **Judgement**

The concerns raised in this case might help you understand the judgement in the current case.

Whether someone who violates copyright online is subject to a different set of rules than someone who does so offline.

The court ruling in the negative stated that there is no justification for why a crime committed in the real world would not also be a criminal committed in the digital one, especially as the Copyright Act does not create any such distinction.

Whether requesting the banning of a website focused on piracy qualifies as being against a free and open internet.

The court opined that key issue about Internet freedom, therefore is not whether the internet is and should be completely free or whether the government should have unlimited censorship authority, but rather where the appropriate lines should be drawn, how they are drawn and how they are implemented.

### **4.11. What is a Rogue Website?**

These websites are largely dedicated to the distribution of unlawful or pirated content. They either directly permit streaming of information or offer a searchable database with references to outside sources. These websites employ hidden advertising networks with anonymous credentials, as opposed to well-known ones. By providing free movies and other content, these websites draw visitors. While some of these websites flimsily assert that they only offer links to other websites and do not actually host any content, their entire platform and user interface are built to enable users to access pirated releases or films through these links, making up the majority of the content accessible on their sites.

#### **4.12. Whether the test for determining a ‘Rogue Website is Qualitative or Quantitative?’**

In this case, the court considered two competing strategies. On the one hand, blocking injunctions are thought to be subject to the quantitative test. Here, the Bombay High Court's learned single judge's decision in the case of **Eros International Media Ltd. v. Bharat Sanchar Nigam Ltd., suit no. 751/2016**, was cited. The learned judge ruled that in order to ban a website in its entirety, the plaintiff must prove to the court that the defendant's website as a whole contains illicit, infringing, and unlawful content. The court established a three-step verification process in this instance:

- Verification and evaluation of allegedly infringing web links and URLs by an outside body.
- Level of verification by the affidavit deponent, plaintiffs, and advocates.
- The affidavit in question is made under oath.

#### **4.13. Whether the defendants’ website falls within the category of ‘Rogue Website’?**

The court determined that after taking into account all the relevant information, it is reasonable to conclude that the defendant's website fits within the category of rogue websites.

Is it appropriate for this court to issue orders completely blocking "ROGUE WEBSITES"?

According to the court, when issuing a website blocking injunction, it is essential to consider whether restricting access to the online location is in the public interest and a proportionate response in the given circumstances. The court's order should be effective, reasonable, and act as a deterrent, but it should not hinder lawful commerce. Moreover, the measures taken must be reasonably priced and fair.

The court also emphasized that any website blocking should be necessary and in proportion to the nature of the infringement. It should also take into account whether legitimate content might be inadvertently blocked.

How Should the court deal with the hydra-headed ‘Rogue Websites who being blocked, actually multiply and resurface as redirect or mirror or alphanumeric websites?

Lastly, the notable aspect of the judgment is its intention to introduce a new procedure for extending website blocking injunctions beyond the specifically mentioned websites. This type of injunction, referred to as a "Dynamic Injunction," would also apply to mirror, alphanumeric, and redirect websites that are created subsequent to the issuance of the injunction orders. The court highlighted that the concept of Dynamic Injunction is derived from a decision of the

Singapore Court in the case of **Disney Enterprise v/s MI Ltd (2018) SGHC 206**. Additionally, the court emphasized that granting such an injunction falls within the inherent powers of the court under **Section 151 of the Civil Procedure Code, and the plaintiff can seek a similar injunction under Order 1 Rule 10 of the Civil Procedure Code.**

- **Relief**

The court issued a Permanent Injunction 3A decree against the defendants, which prohibited the defendant websites, along with their owners, proprietors, officers, servants, employees, or anyone claiming through or under them, from streaming, reproducing, making available to the public, communicating to the public, or using any other method to distribute a work, content, program, or any copyrighted work belonging to the plaintiff. Additionally, an order was issued to the internet service providers (ISPs) to block access to the defendant's website. The plaintiffs were granted permission to include mirror, redirect, or alphanumeric websites under Order 1 Rule 10 of the Civil Procedure Code (CPC) in cases where these new means are used to access the same primary websites that have already been enjoined.<sup>55</sup>

## **CHAPTER V**

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<sup>55</sup> <https://blog.ipleaders.in/copyright-digital-era/>

## **DRM: TREND AND ISSUES**

Digital technologies provide new means to advocate for, defend, and exercise human rights and affect all types of rights - civil and political, as well as cultural, economic and social rights. They shape how people access and share information, form their opinions, debate, and mobilise – they have deeply transformed the “public square”. But they are equally used to suppress, limit and violate rights, for instance through surveillance, censorship, online harassment, algorithmic bias and automated decision-making systems. The misuse of digital technologies also disproportionately affects marginalized individuals and groups, leading to inequality and discrimination - both online and offline.

### **5.1. Digital rights management and fair uses**

The concept of fair use allows for the use of copyrighted works without being considered an infringement due to competing community interests. Fair use serves as a public policy exception to the usual criteria for determining copyright infringement. It recognizes that certain "fair" uses of copyrighted material can bring significant social, cultural, or political benefits that outweigh any potential harm to the copyright holder. The US Supreme Court has referred to fair use as a "breathing space within the confines of copyright," acknowledging its importance in balancing the rights of copyright holders with the broader societal interests.

Since it goes against the instincts of the majority of lawyers and judges to acknowledge that there are circumstances in which it is legal and still beneficial for one person to use the property of another without the owner's consent, the courts frequently view a fair-use defence with some scepticism. If a use is "fair" or not,<sup>56</sup> the courts take a wide range of considerations into account.

The criteria that courts must consider when deciding whether a use of a copyrighted material qualifies as fair use are as follows.

- The rationale and nature of the use is,
- The nature of work
- The amount and substantiality of the part,
- The result of uses.

The "Fair Use" provision, present in copyright laws worldwide, aims to find a balance between individual and communal interests. It allows someone other than the copyright owner to

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<sup>56</sup> Lee Wilson, *Fare Use Free Use and Use by permission*, at p 67.

reasonably utilize the copyrighted work without obtaining prior consent from the owner. Fair use serves as a protective measure that comes into effect once the plaintiff has established a prima facie case of infringement. The Fair Use doctrine is grounded in three key principles: the promotion of learning and the progress of science and literature, the economic benefit to creators through temporary monopolies granted under exclusive rights, and the recognition that works are protected for a limited duration of time."<sup>57</sup>

The purpose of the copyright system is to strike a balance between the public's desire for broad access to copyrighted material and the need to provide financial incentives for copyright holders to distribute their work. The concept of fair use originated in the United States and has been incorporated into the Digital Millennium Copyright Act (DMCA) in response to international internet treaties. The DMCA includes exceptions for fair use. In India, the Copyright Act includes a provision for fair use, and specific requirements related to fair use in the context of digital rights management (DRM) and technological protection measures (TPMs) were introduced through a 2012 amendment. Fair use laws have also been adopted by several nations throughout the world, including Australia's Digital Agenda and the European Union (EU) Directives in European nations. It is crucial to examine how the fair use provision is applied globally.

### **5.3. GLOBAL UNIVERSAL PRACTISE ON FAIR USE**

In addition to the Berne Convention regulation, the usual practise across states is to include extra broad exclusions in the copyright system. This provision benefits society. Some examples of common exceptions which are widely acknowledged include:

- a) **Personal Use** - The Berne Convention does not establish an exception for personal use, although practically every government in the world does. Personal usage is limited in a few countries throughout the world to research purposes only. Several instances in certain nations, there is a distinction between personal and private use. Any usage only intended for entertainment is considered personal use. The term "person" can refer to either an individual or a group of people. <sup>58</sup>The private use limitation and exemption also affect genuine privacy rights in certain common law jurisdictions. Contrarily, the personal use exemption is less revered in the era of digital works, in part because rights are overlapped while viewing works in digital format. For instance, copying for personal use can mean posting something on a website that is accessible to the public, modifying it. The idea of "personal"

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<sup>58</sup> The term "person" can refer to either an individual or a group of people.

reproduction encompasses a variety of actions, such as putting content online, which can violate rights to distribution or public communication.

- b) If audiovisual works are distributed to private computer terminals and watched by a group beyond the immediate family, it could implicate the right to public performance. Thus, whether a particular usage is deemed "personal" depends on factors such as the nature of the work and how and where it can be accessed by the user. Nevertheless, the underlying principle of this exemption is that reproducing a work for private use within one's own home is beyond the author's control. It is worth noting that the concept of "private" or "personal" is not always limited to an individual but, in certain countries, may extend to a narrow circle comprising the primary user's immediate social or family environment. Lastly, personal or private use may encompass activities like "time shifting",<sup>59</sup> which involves making copies of items for later viewing.
- c) **Criticism and review:** Individuals can utilise the fair usage argument if they have fairly critiqued a book or magazine. Constitutional free expression provisions in some nations also act as a source for this uncompensated usage of protected works. The use of copyrighted works for criticism or commentary is covered by the fair use clause in the US. Criticism and review are expressly forbidden by copyright laws in the vast majority of other nations.<sup>60</sup> The limitation can be justified in light of Article 10 of the Berne Convention, which allows for the reproduction of works through brief quotes. Long reproductions are not permitted under this rule. In the majority of nations, the judiciary is in charge of determining the size of the labour done and if the quantity is consistent with the norm established by Article This unpaid use of works that are protected by law is supported in several nations by constitutional principles of free expression. The use of a copyrighted work for criticism or comment is covered by the fair use rule in the US. The majority of other countries' copyright laws specifically prohibit criticism or review.
- d) **Academic purposes:** Article 10(2) of the Berne Convention is where this limitation first appeared. In publications, broadcasts, or audio or video recordings used for instructional purposes, users' rights to utilise the works as illustrations are safeguarded. This restriction, for instance, permits teachers at all educational levels to utilise particular copyrighted works as examples by using a variety of media (such as audio, video literature, etc.), as long as the usage is appropriate and consistent with good practises. Since distant learning comprises the right to public exhibition, performance, and exchange, this Berne Convention clause is wide enough to

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<sup>59</sup> Time shifting" is the recording of programming to a storage medium to be viewed or listened to at a time more convenient to the consumer. Typically, this refers to TV programming but can also refer to radio shows via podcasts.

<sup>60</sup> Supra note 1.

cover it; nonetheless, the Convention does not limit this limitation to the right of reproduction; thus, so long as the purpose is teaching, the use of digital technology to transmit or conduct such teaching must not intimidate the authenticity of this limitation in any way. It is important to note, however, that numerous countries have significantly reduced the extent and ambit of this Berne exemption by local legislation.

e) **Disabled person and minors:** Several countries have explicitly limited all copyright rights in order to allow access for handicapped people or children. As a result of this widespread constraint, conversions into other formats are required. acoustic recitations or any other approach that requires modifying the work to make it accessible. Global and national copyright laws should include this restriction or exemption more generally.

f) **Libraries:** Almost all countries have an exception that allows libraries to reproduce copyrighted works as part of their institutional responsibility and duty in collecting, preserving, and disseminating knowledge, while also facilitating institutions of learning's education mission. Despite the fact that the Berne Convention does not contain a clear limitation for libraries, this exemption might be justified by the broad acceptance of education and the role of libraries in this respect. In contrast, a WIPO study looks at the limitations and exceptions that apply to libraries under the "three-step test" of Article 9(2) of the Berne Convention. According to the study, it will be necessary to specify the type of library or archive usage and establish its bounds. In addition, both financial and non-financial normative issues must be taken into account, such as the expectation of exploitation on the part of the right-holders vs the exemption's educational purpose.

g) **Computer programme:** The majority of nations have laws that acknowledge that computer programmes can be copied in the process of developing an interoperable programme. Courts have unequivocally noted that interoperability is crucial to fostering innovation and competition in a number of industrialised nations. This restriction and exemption from the reproduction right with regard to computer programmes is essential.

h) **Conducting investigation etc:** Broadcasting organisations are permitted to record broadcasts and store them in official archives according to the latitude given to governments under Article 11bis of the Berne Convention. The majority of countries have concurred and put the regulations into effect, with the exception of ephemeral recordings for broadcasting corporations. Due of collecting groups' need for universal agreements that include the necessary permits to protect broadcasting organisations from copyright liability, this restriction has little practical application. Ephemeral recordings are, nonetheless, covered by law in several nations.



i) **Reproduction by the journalists:** Article 10bis allows the press to reproduce publications on current economic, political, or religious topics. These constraints or exclusions supplement the free speech ideal embodied in the usage for criticism or review. It is meant to enhance the notion of a free and fair press, which is a vital complement to free speech and the importance of public awareness and information distribution. Article 10bis (2) expands the "press exception" by permitting nations to decide the terms under which copyrighted works are copied, in addition to reporting on recent events. Many nations have included this restriction into their local legislation.

#### **5.4. Fair Use in the Digital Environment**

**The digital world necessitates a fresh look at what constitutes the international copyright system's public interest objectives.**

So far, scholarly discussion and policy prescriptions have focused mostly on existing ideas of communal welfare (and associated constraints and exceptions) from the print and analogue periods. This ongoing investigation is crucial, primarily because copyrighted works in print format will most certainly continue to be a key way in which information is made accessible to many customers in the world's poorest locations, owing to what looks to be a permanent digital divide. But in addition to maintaining the existing restrictions and exceptions, it is crucial to establish new restrictions and exceptions that are commensurate with the elevated expectations for access and dispersion brought about by recent technology advancements.

Policymakers must determine how to reconcile the interests associated with new means to protect creative expression (copyright, TPMs, contracts) with new ways that consumers can access and use.

Utilise creative creations. In essence, the debate over the integrity and efficacy of the international copyright system to promote general welfare in developing countries, as well as for creators and consumers worldwide, centres on the question of what the copyright's important public purposes should be in the digital age and how those purposes can be more successfully implemented in a global context.

The content industry successfully oversaw the negotiation of the WCT and the WPPT in an effort to build on the momentum created by the TRIPS Agreement and to address the impact of information communication technologies and digitisation on the balance of power between the

copyright owner and the users of the work. But in a similar spirit, neither treaty goes very far in defining the public interest or setting boundaries for the acknowledged rights. The "three-step test" is included in both accords, much as the Berne Convention. Additionally, the agreed statement to Article 10 of the WCT clearly permits member states to establish new exceptions and restrictions suitable for the digital age. This suggests that countries have a lot of latitude in setting restrictions and allowing access to digital works in ways that aren't explicitly recognised by the Convention. Even in cases where the Berne Convention acknowledges limitations and exceptions, such as private use, the exemption's applicability in the digital age is substantially different. Digital use of a copyrighted work may give rise to a variety of rights that weren't applicable in the print setting. Downloading copyrighted material, for instance, includes the right to reproduction, exhibition, performance, and/or distribution, depending on the technical methods used to access the work. In a print environment, a client might only have access to one copy of a work. In a digital environment, however, a customer might easily have access to an infinite number of copies thanks to the ability to store the work in various places or formats. What about include articles in email body text or linking to Internet content that is protected by copyright from other works?

Furthermore, the consumer may share the work with others via peer-to-peer networks or by building a private website and putting the work there. Should the personal use exemption protect such uses?

Courts in various affluent nations, notably the United States, that have evaluated some of the aforementioned purposes have tended to rule unfavourably. In **A&M Records, Inc. v. Napster, Inc.**<sup>61</sup>, for example, the court stated that "space-shifting," in which customers download sound files that they previously owned in audio CD format, did not constitute fair use. The court distinguished the Napster case from Recording Industry **Association of America v. Diamond Multimedia Sys., Inc.**<sup>62</sup>, in which the court previously held that copying to a portable MP3 player to render portable, or "space-shift," files that previously resided on a user's hard drive is "paradigmatic non-commercial personal use." The Napster court, however, distinguished Diamond and Sony, holding that these precedents "are unsuitable because the shifting system in these cases did not also simultaneously engage in sharing of the copyrighted material to the common public; the time or space-shifting of copyrighted material exposed the material simply to the genuine user." The United States Supreme Court recently addressed the problem of using

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<sup>61</sup> 239 F. 3d 1004 (9th Cir., 2001).

<sup>62</sup> 180 F.3d 1072 (9th Cir., 1999)

Sony to establish the legality of the Napster file-sharing software. The Supreme Court analysed the question as a matter of third-party liability in **Grokster v. Metro-Goldwyn-Mayer Studios Inc.**<sup>63</sup>. Promotion of equipment intended for circumvention will amount to facilitation. At least one developed country has taken a different path. A French court found in favour of a defendant accused of uploading and downloading thousands of music files over a peer-to-peer network in late 2005. The court acknowledged that the action was taken for personal, non-commercial purposes. Regardless of this decision, it is just too early to predict how the best current user philosophy can or will be converted into the digital world. What does appear evident is that adaptations of these traditional interests to the digital setting cannot occur without a variety of extra interest and different calibrations.

### **5.5. Fair Use Provision in DMCA, Information Directive and Indian Copyright Law**

The Indian Copyright Act of 1957's Section 52 places a legal emphasis on the notion of fair dealing. The provision confirms the situations where it is not illegal to go beyond efficient technical safeguards.

With a few minor variations, the fair use guidelines under the DMCA and the Indian Copyright Act are nearly identical. There are seven exceptions to fair use listed in the DMCA (Section 1201), for instance:

- A. Nonprofit Libraries Archive and Educational Institutions:**
- B. Law Enforcement Intelligence and Other Government Agencies**
- C. Reverse Engineering of Computer Program,**
- D. Encryption Research,**
- E. Protection Minors,**
- F. Protection Of Personally Identified Information,**
- G. Security Testing**

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<sup>63</sup> 125 S.Ct. 2764 (U.S., 2005).

**A. Nonprofit Libraries Archive and Educational Institutions:**

Exemption (section 1201(d)). The prohibition on circumventing access control measures is subject to an exception that allows nonprofit libraries, archives, and educational institutions to circumvent solely for the purpose of determining whether they want to obtain authorised access to the work.

**B. Law Enforcement Intelligence and Other Government Agencies**

Security of the country and law enforcement actions, as well as information security activities that were lawfully approved, shall not be subject to the restrictions in Sections 1201(a) and 1201(b) on acts of circumvention and technology trafficking. They are also not subject to the restrictions of Section 1202, which is discussed below.

**C. Reverse engineering:** (See Section 1201(f)). To the extent that such acts are permitted under copyright law, this exception allows circumvention and the development of technological means for such circumvention by a person who has lawfully obtained the right to use a copy of a computer programme for the sole purpose of identifying and analysing elements of the programme necessary to achieve interoperability with other programmes.

**D. Encryption research:** (Section 1201(g)). An exemption for encryption research allows for the circumvention of access control measures, as well as the creation of the technological tools to do so, in order to detect weaknesses and vulnerabilities in encryption technology.

**E. Protection Minors:** (section 1201(h)). This exception allows a court applying the prohibition to a component or part to consider the necessity for its incorporation in technology that prevents access of minors to material on the Internet.

**F. Personal Privacy** (Section 1201(i)). This exemption allows for circumvention when the technical measure, or the work it safeguards, is capable of gathering or distributing personally identifying information about a natural person's online activity.

**G. Security testing:** Section 1201(j). For the purpose of assessing the security of a computer, computer system, or computer network with the consent of its owner or operator, this exemption permits the circumvention of access control measures and the development of technological instruments for such circumvention.

**As a result, the EUICSD Copyright Directive takes numerous measures to make an exception or limitation available.**

First, member countries are instructed to act only "in the absence of intended measures taken by right owners, as well as the agreement" with other parties. These "other parties" may include makers of consumer electronics and information technology devices, as well as customers and suppliers of technical security measures. In the case of proposed exception beneficiaries who are end-users, it is not always evident who the other participants in a conversation or agreement could be. The EU Copyright Directive compels member states to provide rights holders a "reasonable period of time" to engage in these agreements before interfering.

Second, domestic law does not have to be codified in order for member states to make exceptions to the requirements they must implement. Instead, they might mandate the usage of safety valves to allow for explicitly authorised actions by end users by the rights holder (and, presumably, the technological protective measures they deploy). It should be stressed as well that there is no assurance that member countries would use these exclusions in a same way. Additionally, it is unclear how member states would intervene and may take different forms depending on whether voluntary actions are absent.

Third, the exceptions made available to beneficiaries by rights holders must only be allowed "to the extent necessary" and no further.

Fourth, individuals who have "legal access" to the content will be granted an exemption.

Fifth, and as stated below, a specific regime applies to the exemption or limitation applicable to circumvention for personal use. This entire regime of exclusions, however, contains an additional essential condition that, in some cases, Respect may have far-reaching effects for society as a whole. Article 6(4)(4) states that none of the mandates apply to voluntary agreements.

These would include pay-per-view, listen-to, download, or on-demand video services, which are arguably distinct from subscription or internet "broadcasting." In such cases, the EU In accordance with the direct agreement struck with the end-user on the use of the particular work, the rights holders are not required to incorporate any exceptions or restrictions to access or copy control measures. In respect to the use of works protected by copyright, member states are free to offer the exceptions and limitations outlined in Article 5 but are not compelled to do so. (In reality, several Member States don't offer comprehensive exceptions for things like private copying.) Articles 5 and 6 so complement one another as follows: Technical protection measures may be circumvented if the act (or trafficking in circumvention-related goods) is done with the intention of making money off of local legal exceptions or restrictions.

Unlike the DMCA, where the exceptions in section 1201 are essentially defences to a circumvention action, the EU Copyright Directive proposes that a member nation may (or may not) consent to certain underlying acts, acts that the technological protection measures are supposed to accommodate (whether voluntarily or otherwise). The acts that may be permitted are listed below. Article 5 specifies that member States may grant exceptions to the rights of reproduction (5(2) and reproduction and communication 5(2) and (3)) under their national legislation. These are as follows:

- Reproduction on paper (photocopying), provided that rights holders get fair compensation;
- Reproduction by public libraries, educational institutions, and museums, or archives, for non-commercial purposes:
  - Ephemeral recording made by broadcasting organisations and connected archiving:
  - Reproductions by non-commercial institutions (such as hospital and prisons), provided that right holders get adequate compensations;
  - Uses for education or scientific research for non-commercial purposes, where credit is given, if possible;
  - Non-commercial use persons with disabilities were related to the disability and to the amount required; and
  - Uses for public security or reporting of government proceedings.

As previously stated, these actions appear to be preferred for Article 6 purposes inasmuch as technical protective measures are expected to support them. Article 5 specifies exclusions and limits for a variety of other actions, including news reporting, criticism or review, and usage in conjunction with political speech or spiritual festivities. These, too, appear to be permissible uses and are appropriately the subject of exclusions under national copyright laws. However, Article 6 does not require that these extra exclusions be given preferential consideration by rights holders or member states.

## **5.6. DRM And Collective Management Of Copyright**

Copyrighted material can be managed either collectively or individually.

The rise of digital technology and the internet posed grave challenges to communal management as well as the long-term survival of Copyright.

Organisations in charge of management. The use of copyright and associated rights by institutions and societies representing the welfare of the owners of such rights is known as collective management. DRM and copyright groups provide comparable functions. Both manage the distribution and protection of work.

Copyright Societies play an important role in the administration of copyrighted content. Collective copyright societies represent rights holders in the negotiation and administration of licence agreements, as well as the collection and distribution of royalties, through author organisations across the world.

The first author societies were formed in France. At first, the tasks of professional associations, such as lobbying for full acknowledgment and respect for writers' rights, were mixed with the growing elements of collective rights management. The very first society of this type was strongly associated with the name Beaumarchais. He was the driving force behind legal challenges against theatres that refused to recognise and respect writers' financial and moral rights.

Those victorious battles led, on his initiative, to the establishment of the Bureau de legislation dramatique in 1777, which was afterward transformed into the Societe des auteurs et compositeurs dramatiques (SACD), the first society dealing with collective management of authors' rights (which still functions fruitfully to the satisfaction of its members and the cultural community).

Honore de Balzac, Alexandre Dumas, Victor Hugo, and other French writers followed suit in the realm of literature more than half a century thereafter when they founded the Societe des gens de lettres (SGDL) whose general assembly convened, for the first occasion, at the end of 1837.

These societies, nevertheless, were not fully-fledged collective management groups in the manner in which the notion of such organisations is characterised at now. The events leading to fully developed collective management began in 1847 when two composers, Paul Henrion and Victor Parizot and a writer, Ernest Bourget, supported by their publisher, brought a judicial proceeding against les "Ambassadeurs", a "cafe-concert" in the Avenue des Champs-Elysees in Paris.

They found a clear contradiction in having to pay for their seats and meals at the "Ambassadeurs" while having no intention of paying for their pieces played by the orchestra. They made the brave and logical decision not to pay as long as they were not also salaried. The

writers won the lawsuit, and the owner of the "Ambassadeurs" was compelled to pay an enormous amount of remuneration. That court judgement opened up a world of new opportunities for composers and text writers of nondramatic musical compositions. However, it was evident that individuals would be unable to administer and apply their newly established rights on their own.

That realisation resulted in the formation of a collective agency in 1850, which was quickly supplanted by the still active and thriving Societe des auteurs compositeurs et editeurs de musique (SACEM).

Parallel author's associations (so-called performing rights societies) were created in practically all European and some other nations in the late nineteenth and early twentieth centuries. Collaboration developed quickly between those organisations through bilateral agreements of common representation of each other's repertoire, and they recognised the need for an international body to manage their activities while also contributing to a more efficient protection of authors' rights worldwide. Delegates from 18 groups founded the "International Confederation of Societies of Authors and Composers" (CISAC) in 1926.

CISAC has been steadily expanding its membership, and now it now comprises societies that are in charge of managing extra rights in other categories of works in addition to musical performance rights organisations, which remain the confederation's focal point. Collective administration of authors' rights serves as the main objective of CISAC member organisations and is the fundamental foundation of their existence. In the CISAC Constitution, this is also represented. Only organisations that manage author's rights may be accepted as regular members, according to Article 5 of the CISAC Statutes.

According to this provision, a society managing authors' rights is an organisation which"

- I. "has as its aim, and effectively ensures, the advancement of the moral interests of authors and the defense of their material interests; and
- II. has at its disposal effective machinery for the collection and distribution of copyright royalties and assumes full responsibility for the operations attaching to the administration of the rights entrusted to it; and
- III. does not, except as an ancillary activity, administer also the rights of performers, phonogram producers, broadcasting organizations or other holders of rights."

An organization which fulfills only the first or only the second of the abovementioned conditions may only be admitted as an associate member of CISAC.



These provisions in the Statutes of CISAC indicate that authors' societies are more than just an "efficient machinery for the collection and distribution of copyright royalties". Their tasks extend, in general, to "the advancement of the moral interests of authors and the defense of their material interests". The fulfillment of the latter task is only possible if these societies have behind them a real community of creators, with well identified common goals, with an appropriate organizational structure to channel joint efforts, and with statutes and regulations expressing professional unity and solidarity and offering sufficient guarantees for fulfilling the noble objectives of "advancement of moral interests" and "defense of material interests" of creators. These interests may sometimes be common with the interests of the owners of related rights, but in certain aspects conflicts of interests may also occur. That is the reason for item (iii) of the above-quoted provision of the CISAC Statutes. The collective nature of the activities of CISAC societies (but in this regard, the activities of member organizations of other international non- RATIONALE AND FUNCTIONS OF THE Two BASIC SYSTEMS OF JOINT EXERCISE OF RIGHTS: COLLECTIVE MANAGEMENT OF RIGHTS CLEARANCE I~ governmental organizations dealing with collective management of rights of individual creative people, rather than of legal entities- organizations such as IFRRO, FIM, FIA, AIDAA, etc. - are in many aspects similar) goes beyond collective management in the strict sense and beyond joint actions aimed at a better legislative and social recognition of the legitimate interests and rights of their members. It is frequently manifested in the fulfillment of certain common social functions and in the promotion of creativity, serving through this not only the interests of their own members but also those of the public at large.

The legislators and the governments of many countries explicitly encourage these kinds of organizations to fulfill such functions going beyond the operation of a mere legal-technical machinery for the management of rights. This is especially so in countries with a "continental", "civil law" tradition where the copyright system is particularly creator-centric, where- in view of the close internal relationship between works and their creators - authors' rights are recognized as part of human rights, and where the promotion of creativity based on the recognition of this special relationship is the *raison d'etre* of copyright protection. In these countries, legislators also tend to intervene in order to ensure that this aspect of the copyright system may continue to prevail and to guarantee that the exercise and enjoyment of rights remain in the hands of the original individual creators or, at least, their collective bodies (rather than being transferred to corporate bodies in the management of which they do not have a real say). This is achieved, *inter alia*, through the restriction of the scope of rights that may be transferred (instead of granting mere licenses on the basis thereof), through the regulation of

copyright contracts in order to protect the interests of individual creators as weaker parties, and even through the introduction of inalienable rights to remuneration ("residual rights") for such creators- typically only exercisable through collective management systems- in cases where they transfer their rights or grant exclusive licenses to the exploiters of their creations.

The cultural and social functions of collective management organizations are particularly important in developing countries where frequently extra efforts are needed to strengthen creative capacity. In general, the same may be said about net importer countries (frequently smaller ones) where, through an efficient fulfillment of such functions, national collective management organizations may achieve two important objectives: first, they may contribute to the preservation of national cultural identity; and, second, they may improve public acceptance of copyright where the copyright system, unfortunately, is frequently in quite a weak and very defensive "public relations" condition.

All of this requires that international partners - sister collective management organisations, media conglomerates, and, in general, rights owners - recognise the relevance of the aforementioned more complicated issues.

functions of the organisations representing authors and performers, and be prepared to work with them. In a globalised world where it would be a mistake to ignore the copyright situation in any single country, this may be more than a matter of generosity or solidarity; it may be a matter of foresight or even a simple calculation in realising that, by doing so, they may better and more efficiently achieve their overall objectives.

The topic of what these societies require can occasionally come up if an individual can effectively safeguard his material through restrictive means.

However, there is considerable misunderstanding regarding the significance of both ideas and the fact that any one is required. Why DRM or Why CRMOS? is a question that may be used to analyse the significance of DRM and copyright management society.

### **5.7. Why copyright management societies?**

The Copyright Society functions as a legal entity responsible for safeguarding the interests of copyright owners in their protected works. These societies provide assurance to creative authors

by managing and overseeing the commercial aspects of their works. They can be described as registered collective administration societies dedicated to the management and protection of copyright.

When authors grant licenses to publishers for the publication of their works, there is a risk of infringement occurring anywhere in the world. It becomes challenging for the copyright owners to prevent such infringements on their own. To address this challenge, copyright owners have established committees or societies that administer licenses for the public display, communication, or distribution of their works. These societies are authorized to monitor potential copyright infringements and take appropriate legal action against infringers.

### **5.7.1. Copyright society in India**

#### **5.7.2. Governing law**

Chapter VII of the Copyright Act, 1957 and Chapter XI of the Copyright Rules, 2013 outline the provisions related to the registration and management of Copyright Societies. These provisions aim to serve the interests of authors who find it impractical or uneconomical to individually license the use of their works to all users or collect fees from them. Additionally, they benefit the general public and specifically the users of copyrighted material who may not have convenient access to licenses from individual authors or copyright owners. By facilitating the enforcement of copyright, these societies contribute to the interests of both parties mentioned above. Furthermore, they assist copyright owners in increasing their revenues while providing the general public with a convenient platform to obtain licenses from multiple right holders.

According to Section 2(ffd) of the Copyright Act, 1957, a "Copyright Society" refers to a society that is registered under Section 33(3) of the Act.

#### **5.7.3. Copyright Amendment Act, 2012**

Before the amendment in 1994, the Copyright Act included provisions for Performing Rights Societies, which granted licenses for the performance of copyrighted works in India. The 1994 amendment expanded the scope of these provisions to cover the issuance of licenses for all rights associated with any category of copyrighted works under the Act.

The 2012 amendment introduced a new sub-section, 3A, in Section 33 of the Act. This sub-section specifies that the registration granted to a copyright society is valid for a period of five

years and can be renewed periodically. The decision to renew the registration lies with the Union Government, and it takes into account the report of the Copyright Registrar on the society's functioning, as stated in Section 36. Additionally, Section 33A, inserted by the 2012 amendment, mandates that copyright societies must publish their tariff scheme according to the prescribed procedure. Failure to comply with the provisions of Section 33A may lead to the cancellation of the society's registration.

#### **5.7.4. Types of copyright societies in India**

- **Indian Reprographic Rights Organisation (IRRO)**

The Indian Reprographic Rights Organisation (IRRO) is a copyright society established in 2000, with a primary focus on authors and publishers. Its role involves registering and granting licenses for literary works by authors and publishers. The society collects royalties from users and distributes them to the respective authors and publishers. IRRO has an international affiliation with the International Federation of Reproduction Rights Organizations (IFRRO) and is the only copyright society of its kind in India.

- **Indian Performing Rights Society (IPRS)**

established in 1969, deals with the registration and licensing of copyrights for members in the music industry. Its membership consists primarily of songwriters, composers, and publishers collectively known as authors. IPRS collects royalties on behalf of its members, protects their copyrights, deducts an administrative fee, and transfers the remaining amount to the respective members.

- **Phonographic Performance Limited India (PPL India)**

founded in 1941, focuses on radio broadcasting and public performance of songs, whether national or international, regardless of language or popularity. The society's main function is to issue licenses for public performances of songs in various settings such as social events, functions, shows, discos, restaurants, malls, and more.

#### **5.7.5. Code of conduct of the copyright societies**

- **Website**

Every copyright society's website should provide the following information: the Certificate of Registration of the Society, the Constitution or Charter, the Articles of Association, the Memorandum of Association, a list of the officers and members of the Governing Councils, the Chairman's name and address, the members of General Bodies, the Annual Report with the Audited Account, specific details about all licenses and the license format, the Code of Conduct, and the Conduct Policy.

### **Member**

The transactions with members of the Copyright Society should be open and transparent, and members should get fair, polite, honest, and fair treatment.

### **5.7.5. Functions of copyright society**

A copyright society's primary responsibilities are issuing licences, collecting fees, and fairly distributing the money earned to the appropriate authors. The association uses a tariff system to decide what fees should be charged and makes sure writers get their fair share. For administrative reasons, a charge is taken out, however it is limited to 15% of the total money collected.

The management of copyright-by-copyright organisations is covered under Section 34 of the Copyright Act of 1957. This provision gives copyright societies the power to get the exclusive consent of writers and other rights holders in order to manage their works through the granting of licences, the collecting of licence fees, or both. Additionally, it adds that writers or other rights holders have the option to revoke this permission without impairing the Copyright Society's rights under any preexisting agreements.

Copyright societies have the opportunity to establish agreements with foreign societies, allowing them to collect royalties from users in those foreign countries. However, it is crucial that the foreign country does not engage in discriminatory practices between Indian authors and authors from other nations concerning licensing terms or the distribution of royalties.

### **Effect of 2012 amendment and inconsistency with certain provisions**

The 2012 amendment to the Copyright Act, 1957 introduced Section 33(3A), which addresses the renewal of licenses after a five-year period. This provision requires existing Copyright Societies to be re-registered. However, the issue lies in the absence of any specified penalties for non-registration of these copyright societies.

Section 33 mandates that any individual or association of individuals must be registered with the Central Government to engage in the business of issuing or granting licenses under the Act. This provision creates an inconsistency with Section 30, which discusses the granting of licenses by copyright owners or their authorized agents. The question arises as to why there is a need for a provision stating that only copyright societies can engage in the business of granting licenses when there already exists a provision allowing copyright owners to do so.

The first proviso states that copyright owners can continue to license their works in their personal capacity. However, this provision seems redundant because it restricts the grant of rights unless one is a copyright society. It also raises doubts about the application of Section 30 and Section 18. Section 18 states that once an assignment is in place and an individual becomes the owner of specific copyright in a work, that individual acts as the owner of the copyright for the rights granted. Therefore, the assignee of copyright also has the right to exercise Section 30 and grant licenses to others. Consequently, the existence of Section 33 calls into question the applicability of Section 18(2) and Section 30. Furthermore, the functioning and capacity of these societies currently remain unclear.

### **Case laws**

In the case of **Leopold Cafe Stores v. Novex Communications Pvt. Ltd.**,

The main question was whether Novex Communications Pvt. Ltd. had the right to grant licenses on behalf of copyright owners for various works. The Bombay High Court made an observation that an agent conducts business on behalf of the agency itself, indicating that the agent acts on behalf of another party who holds the copyright. This interpretation helps reconcile both Section 33 and Section 30 of the Copyright Act. Completely prohibiting agency activities under Section 33 would go against the clear language of Section 30 and render the provision related to authorized agents ineffective.

In the end, the Bombay High Court ruled that Novex was not authorized to engage in the business of issuing or granting licenses under Section 33 of the Copyright Act. However, they were permitted to continue issuing licenses as authorized agents of the copyright owners under Section 30 of the Copyright Act, 1957. It appears that there is a conflict between the application of Sections 30 and 33 regarding the issue and grant of licenses

### **Why digital rights management?**

Copyright infringement is a widespread issue encompassing various forms of media, including movies, music, software, and images. This can range from unauthorized copies of blockbuster films to the illicit use of branded product images on third-party e-commerce platforms to deceive consumers. According to Akamai's 2022 State of the Internet report, piracy websites across industries such as television, film, music, software, and publishing received a staggering 132 billion visits from January to September 2021.

An illustrative case of digital piracy is the situation surrounding Shepard Fairey's "Hope" poster, which he created for Barack Obama's election campaign. Fairey used a photograph from The Associated Press (AP) as the basis for his design without obtaining the necessary authorization. Consequently, AP filed a lawsuit against Fairey, resulting in a settlement that mandated the sharing of rights to create materials featuring the Hope image between both parties. Furthermore, AP received an undisclosed financial compensation. To mitigate unauthorized use of digital media and the potential legal ramifications, digital rights management (DRM) tools are specifically developed and implemented.

While it might be tempting to believe that piracy primarily impacts large corporations, these companies often have to compensate for the resulting losses. Unfortunately, this burden is usually shifted onto consumers through increased subscription fees, restricted legal sharing options, or the availability of subpar products from unauthorized vendors. This emphasizes the critical significance of safeguarding proprietary information and materials to protect the rights of both content creators and consumers.<sup>64</sup>

The very common evils with the copyright's societies, both in the developed and developing countries are-

a. **Lack of transparency and governance:**

Transparency issues are prevalent in society, particularly within author groups, where conflicts of interest and ego clashes often arise. There is a lack of external oversight, and these organizations are not held

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<sup>64</sup> <https://www.acquia.com/blog/digital-rights-management>

accountable to the government. While European nations require societies to publicly disclose their financial management online, they seldom comply.

**b. Poor financial management:**

Collective copyright organizations are responsible for collecting and distributing royalties on behalf of their members, after deducting administrative costs. However, a lack of responsible financial management leads to funds accumulating in these societies' coffers. This problem is particularly widespread in India and results in a loss of trust in these societies.

**c. Incapacity of collecting societies to handle the digital, multi-territory environment:**

Copyright societies, comprised of authors, often lack the necessary knowledge to negotiate with buyers, license works, or establish license terms and conditions. As a result, they suffer financial losses. Additionally, there is no assessment of the creative value of an author's work.

DRM (Digital Rights Management) and CMOs (Collective Management Organizations) are still in early stages of development. In countries like France, mandatory societies function effectively, while in other nations, the issue lies in the administration and operations of these societies. European societies serve noble purposes, and measures should be taken to address their weaknesses, such as government control and judicial vigilance. Given the importance of both communal administration and DRM for copyright, the conflict between them needs to be reexamined.

**5.8. Privacy issues in DRM:**

The rise of electronic commerce and the Internet has raised concerns about the collection and use of consumer information, with many reforms compromising customer privacy. Data processing, collection, and transfer have become easier, leading to data trading and unauthorized acquisition of individuals' information. Security breaches have also weakened the protection of stored and transmitted information. Privacy concerns are further complicated when data is transferred between regions with varying regulations. Consumers are increasingly aware of privacy intrusions and are becoming hesitant to compromise their privacy.

The privacy issue is exacerbated in the context of e-commerce and digital assets. Electronic tracking and user authentication facilitate the collection of detailed and personally identifiable data on digital asset usage, but they also increase the legal risks for data collectors. It is crucial to address fraud without violating customer privacy, and DRM solutions should not assume otherwise.



The privacy concerns have had significant implications, as seen in the class-action suit against Real Networks for potential tracking and the negative publicity surrounding Intel's assigning unique numerical identities to Pentium processors. Attempts to breach the security of rights enforcement systems have been made as public awareness of being monitored by these systems has grown. To be both legally responsible and effective in an environment of increasing privacy awareness, DRM systems must respect the rights of both consumers and content providers. The same technology used to protect content provider rights should also be utilized to protect customer privacy.

Privacy issues hold great importance for the W3C (World Wide Web Consortium). The P3P (Platform for Privacy Preferences) has gained positive recognition, and Microsoft has committed to incorporating tools for configuring P3P preferences in its future browser iterations. Ignoring privacy in a W3C DRM standards initiative would not only impact P3P's legitimacy but also handicap the DRM standard itself. It is suggested that the W3C develop a rights management framework that integrates privacy technologies and includes consumers as first-class participants. Further details on this proposal and examples are discussed in subsequent sections of the paper.

### **5.8.2 Existing (relevant) privacy protection technology**

Privacy technology, like rights management, may be divided into two categories: (policy/contract) expression technology and (policy/contract) compliance technology. While the W3C may not be an ideal authority for the intricacies of compliance technology, it has an excellent experience in expression technology for other applications (P3P, RDF, XML, HTML).

However, some components of compliance technology must not be overlooked since they are inextricably linked to rights management standards. An example is anonymity. A rights management system can be created on the idea that each user will present their public key, which is generally tightly related to personal identification, or on the assumption that a user will exhibit the bare minimum of information necessary to avoid fraud. The latter allows the user to include any additional information as a bonus in exchange for a discount from the vendor. It also allows users who want to maintain their anonymity to use the protocol.

#### **➤ Anonymity**

Anonymity may be conceived of as the protection of a user's unique identification. Different levels of anonymity are required by different apps and users. It is critical to provide for varied degrees of anonymity. Existing schemes include:

➤ **Trusted Third Party:**

This kind of anonymity necessitates the involvement of a trusted screening party as a middleman. The trusted party removes any identifiers that may be utilised by outsiders from information flowing through it. Because all information is exposed to the third party, anonymity is not particularly strong. The third party may encrypt the data with the user's public key, allowing only the user to access it in the future, prohibiting even the third party from obtaining the data. Even so, the third party is aware that information was created, when it was generated, and by whom. This type of anonymity is violated if the third party breaches the agreement that the information maintained is secret and shares/sells the unencrypted data.

➤ **Persona/Nyms**

This type of anonymity is slightly stronger than screening and may be used in conjunction with it. It protects privacy by not enabling the compilation of data from multiple sources/sessions to create a composite personality. A user keeps many keys instead of just one, and uses various keys for different transactions/merchants/sessions. There is no one unique identification linked with the user. As a result, for instance, the user's profile on Amazon.com and his profile on HP.com cannot be combined, prohibiting the development of whole identities through merchant cooperation. In addition, this system enables the user to keep a profile with a certain merchant. The profile may be highly advantageous to the user as it aids in the creation of targeted marketing that may be quite in line with the user's preferences.

**NymIP is a proposal for a standard Internet Protocol using nyms.<sup>65</sup>**

➤ **Strong Anonymity outside of the current Public Key Infrastructure (PKI)**

Zero Knowledge Systems' Stefan Brands has developed a variety of strategies that offer surprisingly robust anonymity while assisting in the fight against fraud. These plans expand upon David Chaum's outstanding prior work. These and other programmes are covered in great detail in the main goal of these systems is to make it possible to utilise tokens that include the data needed to complete a transaction. These tokens might be electronic money tokens that represent a particular amount of currency or vouchers like those needed for rights management transactions. The protocols offered by the schemes enable simultaneous anonymity and fraud

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<sup>65</sup> NymIP Research Group, "The NymIP Effort", announced at the 49th meeting of the IETF, Dec 2000.

protection to a degree not before achievable, and they provide methods to demonstrate ownership and honest usage of the token without necessitating the reveal of further information. The present public key-based rights management protocols are special examples of these protocols, but they make assumptions that these protocols do not, and hence cannot include them. In this work, we'll refer to these protocols as Proof of Knowledge (POK) protocols. We use the word to refer to both the most general scenario, which includes all other protocols based on PKI and SPKI (Simple Public Key Infrastructure), and the specialised strong anonymity technologies built around the protocols of the context will reveal which of them we mean.

The development of anonymity technology opens up new perspectives on identification, particularly the close ties between revealing one's identified and one's personal profile. To identify oneself, portions of the personal profile are made public. These aspects are carefully presented, and the degree of exposure is apparent, because the personal profile is a strength.

### **5.8.3. Technology for Expression**

In addition to varying levels of anonymity, the asset viewer can make usage information available at various levels of granularity. A common terminology for the degree of granularity is required. In its absence, the granularity might be thought of as descriptive metadata about a personal profile asset.

P3P's technological contribution includes a substantial portion of expression technology enabling access rights to a personal profile. Its future is bright, but only time will tell how well customers accept it as a means of expressing privacy policy.

Finally, tracking information must be conveyed, and terminology for this does not exist in a highly standard manner.

- **Example outcomes of the workshop**

**We give a few examples results to show how the concepts discussed previously in the study may be used.**

**A basic framework that is consistent with:**

- **User Authentication with**
  - i. Degrees and types of anonymity, for example:
    - a. PKI

- b. SPKI
  - c. Nym
  - d. Anonymized through trusted third party
  - e. POK
- ii. Choice of when to reveal

identity and to what extent

- **Usage Tracking with**

- i. Extent of tracking (what is being tracked?)
- ii. Controlled revelation of usage data

: specification of granularity level of usage data (in what detail is it being tracked?)

- **Rights clearing with**

- i. degree of usage and rights information staying with client vs. rights clearing agency (how much of the tracking information is sent back to the clearing agency and at what level of aggregation)

**A fulfillment protocol including:**

- how often rights clearing agency is contacted wrt asset access
- granularity of divulged usage logs<sup>66</sup>

**An example outcome with respect to the main HP position paper<sup>67</sup>**

A Policy and Rights Expression Platform (PREP) that offers "a model defining open interfaces between three architectural levels of abstraction: rights expression languages, rights messaging protocols, and mechanisms for policy enforcement and compliance" [section 4, 9] is proposed in the main HP position paper by John Erickson et al. In this part, we suggest elements of various abstraction levels that would be beneficial in terms of privacy.

**A personal profile would be an asset in the system, with ownership, access permissions, and descriptive as well as rights information connected with it.**

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<sup>66</sup> Privacy and Digital Rights Management (w3.org)

<sup>67</sup> John Erickson, Matt Williamson, Dave Reynolds, Poorvi Vora, Peter Rodgers, "Principles for Standardization and Interoperability in Web-based Digital Rights Management", A Position Paper for the W3C Workshop on Digital Rights Management (January 2001)

- a. **Rights Expression Languages:** The needs of privacy vocabularies and syntaxes such as vocabularies for profile description (vocabulary not for the profile itself but for metadata about the profile such as the level of granularity), access rights to profiles (example P3P, XrML), degrees of anonymity, and degrees of tracking should be addressed by a semantic layer into which all rights expression languages can be translated. As far as feasible, this layer should not split profiles and media assets into two groups, but rather allow for various combinations of these into composite documents.
- b. **Rights Messaging Protocol:** Unlike standard PKI, the rights messaging protocol should not need user identification with a key. Instead, it should enable a choice of identification from the possibilities in 4.1, as well as POK with or without a third-party mediator (which generalises all of the options in 4.1). This is congruent with the idea expressed in section 3.1 that detailed identification is equivalent with personal profile, which is an asset that should be shared thoughtfully, openly, and not frivolously.
- c. **Policy Enforcement Mechanisms:** The ties stated in between language layer elements and compliance mechanisms should be based on POKs rather than conventional identification. Furthermore, these bindings should enable personal profile privacy compliance. Authorization tokens for rights enforcement at the server end should, once again, employ POK rather than conventional identities. Secure containers should include not just media assets (where there is a minimal granularity for access - in an electronic book, for example, a paragraph may be the lowest allowable unit for granular definition of rights), but also personal profiles (where granularity is a completely separate issue).

Recent developments indicate that the concept of DRM is evolving. DRM was created to preserve the author's economic rights and is only concerned with the author's interests. However, it is now consumer-friendly, allowing and respecting the consumer's right to fair use, and it has also become the primary option of CRMOs. CRMOs and DRMs both serve the same objective and have flaws. It is tough to determine which is excellent and which is terrible. Both have flaws, but the complete package cannot be dismissed because of a few flaws.

## **CONCLUSION**

The Copyright Law encourages authorship by providing authors with exclusive rights for a limited duration, following the 'Quid Pro Quo' principle. Authors contribute their creative works to society while enjoying exclusive rights for a specific period of time. Once this period expires, the work enters the public domain. Copyright protection serves both moral and economic purposes. From a moral standpoint, authors are granted exclusive rights over their creations, which are considered an integral part of their identity. From an economic perspective, copyright law incentivizes authors to produce new works by granting them exclusive rights for the purpose of commercial exploitation.

Digital technology has significantly impacted copyright in recent years due to the internet and technological revolution. This has led to significant changes in the creation, distribution, and collection of work. The World Wide Web (WWW) has revolutionized the information explosion, impacting the arena of copyright law. Digital information, such as photographs, films, and music, may now be disseminated instantly thanks to advancements in computer and internet technologies. But unlike physical items, digital material can be quickly duplicated, altered, and sent to a vast number of receivers.

Content owners are actively seeking technological solutions to control the use and management of their content throughout its lifecycle. Technology presents both challenges and opportunities in the realm of copyright law, particularly in addressing issues like piracy, infringement, and unauthorized distribution. Digital Rights Management (DRM) systems, encompassing techniques such as encryption, watermarking, and fingerprinting, have evolved to tackle these challenges. DRM serves as a safeguard for online digital content, while the Right Expression Language (REL) defines the rights of authors. Since its emergence in the 1990s, DRM has gained global recognition and is crucial for author control, preventing unauthorized access, and safeguarding against unlawful alterations, distortions, mutilations, and modifications of content. DRM offers numerous benefits, including content protection and revenue generation, making it an integral part of successful businesses and internet infrastructure.

Initially, DRM was viewed skeptically by content producers, who believed it could be easily circumvented by those with basic computer skills. However, as new technologies emerged, content owners started utilizing DRM for their digital content, leading to a demand for legal protection against DRM circumvention. On the other hand, the content industry, previously making significant profits from DVD and CD sales, reacted strongly to what they perceived as "piracy," pushing for new copyright regulations to prevent free access to digital content online.

In reality, DRM can be seen as a form of economic protectionism driven by large media corporations, with government authorities attempting to regulate the dynamics of IT technology—an endeavor that is inherently challenging. It is evident that DRM cannot successfully prevent individuals with basic software development knowledge from accessing internet information without paying fees or facing legal repercussions. Therefore, the introduction of DRM can be regarded as an attempt by mediocre actors posing as "moralists" to impose their backwardness in the realm of virtual reality.

Given the exponential advancements in IT technology, only the naivest individuals would believe that DRM can withstand the test of time, especially when considering the Law of Accelerating Returns. As described by Ray Kurzweil, the progress of the internet from 20,000 to 80,000 nodes within a two-year period remained concealed from the general public. However, a decade later, the growth escalated from 20 million to 80 million nodes in the same timeframe. Consequently, it is reasonable to speculate that, due to its anti-technological nature, the concept of DRM may be entirely abandoned within a few years.

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