

ROLE OF COPYRIGHT LAW IN ENHANCING CRIME IN DIGITAL ERA

BRIJ MOHAN DUTTA

Department of Faculty of Law , Graphic Era Hill University, Dehradun,
Uttarakhand, India 248002

ABSTRACT

As duplicating works was so time-consuming and error-prone before the invention of the printing press, creators seldom fretted about their work being stolen. The 21st century has seen the emergence of a whole new cultural phenomenon: cyber culture. Technology improvements rely heavily on understanding intellectual property rights (IPR), and this is only going to become more important in the emerging knowledge economy. Knowing intellectual property law is important for information and knowledge providers since it is becoming harder to prove rights' violation whenever it happens in the digital environment. Several solutions exist for copyright challenges in the digital age. Yet as technology has progressed, fresh concepts like software, databases, web layouts, etc. have evolved. Thus, it is essential to get a deeper understanding of copyright in relation to the software, databases, and other works found in cyberspace. In today's digital age, copyright has emerged as a central problem in intellectual property rights. This article focuses on digital/electronic material and the safeguarding of digital rights, which covers a wide range of topics related to Copyright.

Keywords: Copyright, Digital Era, Trade, Trade-Related Aspects of Intellectual Property Rights (TRIPS), World Intellectual Property Organization.

INTRODUCTION

Copying was so time-consuming and prone to human mistake that very few copies of books and manuscripts existed until the invention of the printing machine. The notion of copyright protection originated in the fourteenth century, with the creation of the printing press and the subsequent publishing of literary works in many copies.

Writers, composers, performers, and producers of all other types of creative works are legally entitled to copyright protections. When it comes to intellectual property, the scope has grown from its original print-centric roots. With the proliferation of digital media, digital copyright law has expanded to include such things as computer programs, computer databases, other works on the web, etc.

Since the internet has allowed for the rapid dissemination of new forms of intellectual property in the contemporary digital age, it has also introduced new challenges to the copyright system by dramatically increasing the risk of copyright infringement via a wide range of sophisticated approaches.

This article seeks to educate readers about the international community's response to the problems posed by digital technology with regard to intellectual assets, with a focus on how computer-based works are protected under copyright law. In addition, it

will analyze the changes that have occurred in Indian copyright law as a result of the advent of the digital age and point out the weaknesses of the current system for the protection of intellectual property.

Copying was so time-consuming and error-prone before the invention of the printing press that no one worried about their work being stolen. This happened because, starting in the early 1400s, the printing press allowed for many copies of literary works to be published. Copyrights are the unique legal rights given to the authors of literary, musical, dramatic, or artistic works.

Most copyright legislation were originally written with printed materials in mind. This idea, however, has expanded through time. In the modern day, new forms of intellectual property are rapidly disseminated thanks to the widespread availability of the Internet. Yet, the internet has presented additional difficulties for the existing copyright law as a result of the rapid increase in the risk of copyright infringement brought about by several contemporary tactics.

LITERATURE REVIEW

Atanasova, irina. (2019). With the advent of digital formats for text, audio, and video, piracy has become more easier to do. The ability to copy and paste text from a website or transfer files across devices has made digital information transfer more simpler. The generation of duplicates is inherent in even the most mundane activities, such as checking email or surfing the web. Because of the Internet, copycats can easily mass-produce thousands of works with very little investment. Legal safeguards exist to prevent piracy of intellectual property, such as an international treaty, a European Communities Regulation, and extensive copyright laws in the United States. Copyright rules and regulations vary greatly from place to region, despite certain commonality between the intellectual property laws of various nations. Too much emphasis on copyright protection might have a chilling impact on democratic values and aspirations of social justice by stifling the free flow of information and knowledge. Overprotecting intellectual property may have a negative impact on innovation, creativity, and competition. It is essential to find a middle ground between the rights of copyright holders to be rewarded fairly and those of copyright users to have proper access to copyrighted works. This study explores the challenge of minimizing digital copyright infringement without stifling innovation and creativity, and analyzes several solutions and approaches to this problem. Infringement of copyright laws, responsibility, digitization, prosecution, and other related terms JEL Identifiers: K14, K24

Nandini, c.. (2017). Legislators and those who own IP have had a difficult time since the Internet's inception in the 1970s and its commercialization in the 1990s. Because of the ease with which copyright infringers may distribute pirated digital content and the financial losses suffered by copyright holders, copyright protection in digitalized technologies has been a benefit to copyright offenders. With the advent of the web 2.0 era, data storage, sharing, and collaboration have become more simpler thanks to digitalization, allowing for its widespread dissemination, reproduction, and dissemination through the internet. Because of digitization, the internet has become a networked virtual society. The digitization of copyright content has increased information accessibility, but it has also presented holders/owners with a number of

challenges, both technological and otherwise. The necessity to tackle extensive piracy, counterfeiting, and different strategies of evasion have put existing laws to the test. Most nations are proposing their laws to be in line with international adjustments in the copyright law under the umbrella of the WIPO that brought to the WCT and WPPT, as a result of pressure from international copyright holders. With every generation of digital technology, copyright protection faced difficulties and setbacks. The two primary stages' that are widely recognized are the Low-Tech Period and the High-Tech Era, and they represent the changes that occurred with substantial worries. Infractions have become more severe and presented more obstacles to legislators as a result of the Digital Era's further categorization into the Analog Phase and the Digital Phase. States are shifting away from a focus on civil remedies and toward a criminalization of copyright law in an effort to appease the concerns of copyright holders. This shift is noticeable in the vast majority of nations, since copyright holders want criminal law to prevail in at least some cases.

Sinha, m.k. & mahalwar, vandana. (2017). This book examines the major concerns, difficulties, and consequences brought on by the evolution of copyright law and the judicial reactions to these developments. With the use of accessible examples, this book examines the major role of copyright law in determining the requirements of today's digital world from the perspective of renowned intellectual property scholars. The areas of copyright and electronic media are explored, offering unique perspectives. Conflicts over copyright have multiplied with the exponential growth in digital tools for duplicating and disseminating material, prompting politicians to broaden the scope of copyright protection in the digital era. This book includes a collection of articles mostly addressing new frontiers and shifting perspectives in this domain, keeping in mind the significant challenges that the digital age has introduced to the operation of copyright. The criteria for originality, the accessibility of published works for the visually impaired, the criminalization of copyright infringement, and the protection of software under copyright law are all discussed at length across the several articles. The 14 chapters in this book are useful for anybody interested in Intellectual Property Rights, including academics, policymakers, practitioners, and politicians (IPR).

Gomber, amit. (2017). In this section, we examine the history and significance of the concept of exhaustion, both generally and specifically for copyright laws, by exploring the first sale theory or doctrine of parallel imports. Neither the Paris nor the Berne conventions address the question of whether or not international exhaustion is legitimate. Article 6 of the TRIPs agreement allows for the freedom of each nation to establish its own system for the expiration of intellectual property rights. In light of TRIPs' inability to tackle fatigue, this chapter examines the debate over whether or not some elements of the Copyright Act of 1957, as well as certain proposed revisions, should be struck down as unconstitutional. This chapter would go into further depth on the recent change in exhaustion rule followed in the United States as decided by the US Supreme Court in the case of *Kirtsaeng v. John Wiley & Sons, Inc.* In last, this section will analyze the digital age strategy that works best for India.

Finck, m., et.al (2019). In this essay, we take a look at the pros and cons of using blockchain technology and smart contracts built on the blockchain to manage copyright. Digital Rights Management (DRM) and other forms of technology copyright enforcement have been around for some time. Now that blockchain

technology has emerged, many people are looking forward to a new era in the management and enforcement of copyright through computer programs. The article provides an overview of the technology and its possibilities and constraints, highlighting how it may serve as a normative ordering that communicates either public or private goals.

COPYRIGHT IN THE DIGITAL ERA

Technology that uses computers to improve people's lives has come a long way in the twenty-first century. The modern human race has entered the "Digital Era," which necessitates highly advanced technology. In addition, the new corona virus epidemic in 2012 resulted in changes to Indian copyright law that brought it into compliance with two Internet treaties: the WIPO Copyright Treaty (WCT) and the WIPO Performances and Phonograms Treaty (WPPT). Technology and digitalization have both seen rapid expansion in recent years.

Many facets of amusement and knowledge have improved, both in India and beyond. One's vision of a library, filled with shelves upon shelves of books, is evolving into the digital age. As a result of the epidemic, traditional classrooms have been replaced with online learning environments. Several different types of study guides have been improved into electronic books. Like the typewriter's decline in popularity due to the widespread availability of personal computers with keyboards and mice, the era of print's dominance will eventually give way to digital media. While print does still exist, more and more people are opting for the convenience and flexibility of electronic information over the limitations of printed materials.

Whether such issues or challenges are societal or otherwise, they prompt the creation of laws. In responding to such problems or challenges, the law simultaneously produces itself. While exploring the relationship between law and inventions, copyright is one of the greatest instances that one comes across.

The value of IP has grown in recent years due to technological and creative advancements. A patent, trademark, or copyright may be applicable to this new development. When we think of the kinds of works that are entitled to copyright protection, we think of works of scholarship, art, music, and theater. The proliferation of modern technologies has sparked the emergence of novel concepts such as pc programs, pc database, pc designs, various web-based attempts, etc. Thus, it is crucial to acquire knowledge about copyright in regards to computer applications, computer databases, and other works found on the web. In today's digital age, the protection of one's copyright is of paramount importance in terms of intellectual property rights.

In addition to new technical protections, the revised legislation includes unique fair use safeguards to guarantee the practice's continued viability in the digital age. The changes made to copyright management include author-friendly changes, accommodations for the handicapped, access to works, and other changes.

The Copyright (Amendment) Act made a number of adjustments, and this page details them. Changes made by the Copyright (Amendment) Act of 2012 may be broken down into the following categories:

There will be revisions to the rights associated with works of art, motion pictures, and recordings made using mechanical reproduction technology (MRP), as well as revisions to the rights associated with the World Trade Organization and the Agreement. Revisions to the Assignment and Licenses process that authors would like Reforming the Copyright Board and making other modest adjustments to make it more effective at its job of safeguarding intellectual property and enforcing the law in the face of rising Internet piracy are two of the most notable changes.

Copyright Issues and Challenges:

Copyright concerns in the digital age may be broken down into three categories:

- a) Problems unique to the realm of digital works, such as computer programs, databases, and multimedia productions;
- b) Problems unique to the realm of digital media, such as the replication, distribution, and public communication of works. new creations:

Throughout time, copyright laws came to recognise and protect the legitimacy of the new forms of creative expression that had emerged as a direct consequence of technical advancements. Consequently, the development of photography gave rise to the category of works known as "photographs," the invention of analogue technology to the genre of works known as "phonograms," and the invention of cinema to the genres of cinematographic films, video films, and so on. Growing digital technology has led to questions about the efficacy of copyright protection for works such as software, databases, and multimedia.

Right Of Production:

The phrase "reproduction" under the Indian Copyright Act includes "the storage of it in any media by electronic means," which suggests that digital reproductions of literary, theatrical, and musical works are already protected. Digital duplication seems to be taken care of by the definitions of cinematograph film and sound recording. The right of reproduction granted upon an artistic work, however, is limited to replication "in any material form," therefore works of art are not protected. The absence of legislation in this area has to be remedied, and it is especially important that the legal framework resolve any confusion that may exist over whether or not the right to create copies extends to digital copies of cinematograph films and sound recordings. Temporary or accidental replication occurs often in Internet communication, thus compounding the situation.

The phrase "reproduction" covers "the storage of it in any media by electronic means" under the Indian Copyright Act, therefore digital reproductions of literary, dramatic, and musical works are already protected. Digital duplication seems to be taken care of by the definitions of cinematograph film and sound recording. The right of reproduction granted upon an artistic work, however, is limited to replication "in any material form," which means that works of art are not protected. Legal action is required to fill this gap and provide clarity on the status of cinematograph films and sound recordings so that there are no longer any questions as to whether or not the right to make copies extends to digital reproductions of these works. The issue of

fleeting or accidental replication that occurs during Internet communication also raises concerns.

Rights of Distribution and Communication to the Public:

The copyrights law grants the copyright holder the monopoly on making and selling copies of the work. In the event that unauthorised copies of a work are distributed to the general public, this is a violation of their copyright.

The distribution right for digital works is stated to be in force as soon as the work is made available for public viewing on the Internet. Clearly, the boundary between dissemination and exhibition is porous at best. In the context of internet regulation of the right, there is nothing to differentiate between the two. `

COPYRIGHT PROTECTION: AN EMERGING TREND:

In a nutshell, the following is what has changed significantly thanks to the current Copyright Act of 2012, which paves the way for copyright protection in the developing digital environment:

- Reporting on current events, such as the coverage of a public lecture, is now protected under the fair dealing exception;
- Certain exceptions that were previously applicable only in respect to particular forms of work have been made applicable to all types of work. Although the fair dealing exemption was formerly only applicable to

Use for non-commercial purposes, such as study, and any kind of critical analysis or review, whether of the original work or another.

making any work accessible to people with disabilities by adapting it, reproducing it, issuing copies of it, or communicating it to the public in a format created for the exclusive use of those with sensory impairments that prevent them from enjoying the work in its original form; The act of a public, non-profit library preserving a work in electronic form if that library also has a physical copy of the work;

A recent substantial update of copyright law in India has resulted in a complete process of reformulating copyright law. The Copyright Act establishes criminal penalties for anyone who knowingly or recklessly circumvent any technological protection put into place to protect intellectual property. Nonetheless, several loopholes were created to allow for the legal use of copyright material when it comes into contact with technology, and they are summed up as follows (Section 65A of the Copyright (Amendment) Act 2012):

Using an encrypted copy obtained legally for research on encryption; conducting any legal investigation; testing the security of a computer system or network with permission from the owner or operator; or acting in the interest of national security in any way necessitated by such testing.

This provision's exemption should not be so wide as to include any operator, but rather should be confined to owners or operators who have been granted express

permission by the owners to engage in the activity. With the aid of these changes, India was able to comply with the WIPO mandate without formally ratifying the WIPO Treaty. Also, new rules concerning the proper use of management data have been included (RMI). Several behaviors are now crimes that may result in a fine and/or jail time of up to two years as a result of the Amendment. Copyright holders may pursue legal remedies outlined against offenders.

Alternative solutions to Copyright problems in digital era

Anti-theft Technology and Contract:

The increasing sophistication of modern technology makes it impossible for the market to guarantee the safety of copyrighted works in the absence of legal recourse. The need of safeguarding such efforts increases when technological advancements and other types of progress are achieved in every industry. Yet, software known as software protection devices may be helpful and can go far toward combating digital piracy by preventing users from copying software and data onto blank drives.

Contractual Agreements:

When two businesses sign a contract, it's common practise for one to provide the other with access to sensitive information. Contractual agreements obligating the other party to remove and destroy such secret material when the contractual duty is complete might prove to be quite beneficial in avoiding copyright infringement in such cases.

DIGITAL ERA AND COPYRIGHT INFRINGEMENT- ISSUES

Easy Accessibility Online

Nowadays, it is no longer difficult to obtain or collect any data from the internet since the usage of the internet and online-based systems has expanded dramatically. Due to privacy concerns and other factors, it is sometimes difficult to determine who has accessed the material without the author's consent.

People's Attitude

The widespread belief that it is possible to copy information from the internet or other sources without permission is another factor contributing to copyright infringement in the digital age. But, unless the owner's consent is obtained, he is mentioned, or the material is made publicly accessible by the government, any such use is prohibited.

'Fair use' mechanism

Several circumstances are discussed in Section 52 of the Copyright Act, 1957, which may be seen as defenses against copyright infringement. A notion known as "fair use" of copyrighted works is established under such rules, allowing for the fair use of certain original works under specific conditions.

Due to this lenient stance, individuals are more likely to make copies of the original work under the guise of fair use and subsequently use such data for any unlawful

publication, which makes it harder to track down and prohibit such unauthorized access to data.

Lacking of Copyright law

The notion of digital copyright infringement was not recognized to the legislators who drafted the copyrights statute in 1957. As a result, there was no adequate system in place to prevent and address digital copyright infringement. Online protection for copyrighted works did not come into effect until after the World Copyright Treaty 1996 at the Berne convention and the WIPO Performance of Phonogram Treaty 1996. These accords prompted India to introduce the Amendment Act in 2012, the latest in a series of amendments to its Act of 1957.

While this law partially acknowledged the idea of online copyright protection, it lacked a viable method for preventing illicit access to data caused by modern fast-track technologies.

CONCLUSION.

Most copyright legislation were originally written with printed materials in mind. With the advent of digital media, it has become more difficult to enforce copyright laws. It is important to manage the risks of foreign litigation while striking a balance between the relative ease of infringing and the high cost of enforcement. Copyrighted content may now be readily distributed over the world without the permission of the copyright owner, highlighting the need for protection beyond national boundaries. Existing substantive laws might benefit from the addition of a procedure for international litigation.

REFERENCES

1. Atanasova, irina. (2019). Copyright infringement in digital environment. The journal of law and economics. 1. 13-22.
2. Nandini, c.. (2017). Criminalization of copyrights infringements in the digital era with special reference to india. 10.1007/978-981-10-3984-3_14.
3. Sinha, m.k. & mahalwar, vandana. (2017). Copyright law in the digital world: challenges and opportunities. 10.1007/978-981-10-3984-3.
4. Gomber, amit. (2017). First sale doctrine in the digital era. 10.1007/978-981-10-3984-3_12.
5. Finck, m., moscon, v. Copyright law on blockchains: between new forms of rights administration and digital rights management 2.0. Iic 50, 77–108 (2019). <https://doi.org/10.1007/s40319-018-00776-8>
6. Legal, c. O. (2011). Limitations and exceptions to copyright and neighbouring rights in digital environment. International federation of library associations
7. Crews, k. (2011). Copyright law and graduate research. [Http://www.umi.com/en-us/products/dissertations/copyright/](http://www.umi.com/en-us/products/dissertations/copyright/).

- 8.** Crews, k. (2011). Copyright law and graduate research. [Ttp://www.umi.com/en-us/products/dissertations/copyright/](http://www.umi.com/en-us/products/dissertations/copyright/).
- 9.** "Definition of copyright". Merriam-webster. Retrieved 20 December 2018.
- 10.** "Berne convention for the protection of literary and artistic works article 5". World intellectual property organization. Archived from the original on 11 September 2012. Retrieved 18 November 2011.
- 11.** Creative commons website". Creativecommons.org. Retrieved 24 october 2011.
- 12.** Rubin, r. E. (2010) 'foundations of library and information science: third edition', Neal Schuman publishers, inc., New York, p. 341
- 13.** Business software alliance [bsa] (2014), "bsa global software survey 2013", available at: http://globalstudy.bsa.org/2013/downloads/studies/2013globalsurvey_study_en.pdf
- 14.** Confindustria radio televisioni [crt] (2014), "analisi e dati", presented on 3rd july 2014, at the 9th committee on transportation, post and telecommunications of the chamber of deputies [ix commissione trasporti, poste e telecomunicazioni] available at: http://www.confindustriaradiotv.it/wpcontent/uploads/2014/07/indagine-conoscitiva-ix-commissione-camera_-3luglio_dati.pdf
- 15.** Das, s., a. Mukhopadhyay and k. K. Bagchi (2014), national-level determinants of global music piracy and online music sales: an exploratory study, journal of global information technology management, vol. 17(1)