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Copyright in the Digital Era: Position Up To 2023

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Abstract

Copyright is an important branch of intellectual property law that protects the original literary, dramatic, musical and artistic creations of authors. The development of digital technology and the internet has significantly changed the nature of creation, reproduction and distribution of copyrighted works. Digital platforms, social media, online streaming services, cloud computing and artificial intelligence have created new opportunities for creators while simultaneously increasing the risk of copyright infringement. Unauthorized copying, downloading, file sharing and online piracy have become major challenges in the digital environment.

This research paper examines the position of copyright law in the digital era up to 2023. It discusses the international and Indian legal framework for copyright protection, including the Berne Convention, TRIPS Agreement, WIPO Copyright Treaty and the Copyright Act, 1957. The paper also analyses emerging challenges such as online piracy, intermediary liability, digital rights management and artificial intelligence. The study concludes that copyright law must continuously adapt to technological developments while maintaining a balance between the rights of creators and public access to knowledge and information.

Keywords: Copyright, Digital Era, Internet, Online Piracy, Intellectual Property, Digital Rights Management, Artificial Intelligence, WIPO.

1. Introduction

Copyright law protects the creative expression of authors and provides them with certain exclusive economic and moral rights. Traditionally, copyright infringement mainly occurred through physical reproduction of books, films, music and other creative works. However, the emergence of computers and the internet has completely transformed the manner in which copyrighted works are created, copied and distributed.

The digital revolution has made reproduction easier, faster and cheaper. A digital file can be copied an unlimited number of times without any loss of quality. Through the internet, copyrighted content can be transmitted globally within seconds. This technological development has created serious challenges for traditional copyright law.

The growth of smartphones, social media, streaming platforms and cloud technology has further complicated copyright protection. Users frequently download, share, modify and reproduce copyrighted works without authorization. Online piracy has particularly affected the film, music, publishing and software industries.

At the same time, digital technology has created new opportunities for authors and copyright owners. Independent creators can publish their work globally without depending entirely upon traditional publishers. Streaming platforms and digital marketplaces have created new methods of commercial exploitation.

In India, copyright is primarily governed by the Copyright Act, 1957. The law has been amended from time to time to respond to technological changes. The Copyright (Amendment) Act, 2012 introduced important provisions relating to the digital environment, technological protection measures and rights management information.

By 2023, artificial intelligence had emerged as a major new challenge for copyright law. AI systems can generate text, images, music and other creative works, raising questions about authorship, originality and ownership. Therefore, examining copyright in the digital era is essential for understanding the changing relationship between law, technology and creativity.

2. Objectives of the Study

The objectives of the present study are:

1. To examine the concept of copyright in the digital era.
2. To analyse the impact of digital technology on copyright protection.
3. To study the international framework governing digital copyright.
4. To examine the position of copyright law in India.
5. To identify major challenges of online copyright infringement.
6. To analyse the role of digital rights management and technological protection measures.
7. To examine emerging challenges relating to artificial intelligence up to 2023.
8. To suggest reforms for effective copyright protection in the digital environment.

3. Hypotheses

The present research is based on the following hypotheses:

1. Traditional copyright laws face significant challenges in the rapidly changing digital environment.
2. Digital technology has increased the occurrence of copyright infringement and online piracy.
3. International cooperation is necessary to effectively control cross-border copyright infringement.
4. Existing copyright laws require continuous modernization to address challenges created by artificial intelligence and emerging technologies.

4. Research Methodology

The present research is doctrinal and analytical in nature. The study is based primarily on secondary sources and legal materials.

The research examines relevant statutes, international conventions, judicial decisions, books, research articles and reports. The primary legal sources include the Copyright Act, 1957, the

Copyright (Amendment) Act, 2012, the Berne Convention, TRIPS Agreement and WIPO Copyright Treaty.

Secondary sources include books, law journals, academic articles, government reports and publications of international organizations. The study follows a descriptive and analytical method to examine the changing position of copyright law up to 2023.

5. Literature Review

Several scholars have examined the relationship between copyright law and technological development. Traditional copyright literature focuses on protecting authors and encouraging creativity. However, modern scholarship increasingly examines the challenges created by the internet and digital technology.

P. Narayanan has extensively discussed the principles and development of intellectual property law in India. His work provides an important understanding of the Indian copyright system.

David Bainbridge has analysed intellectual property law in the context of technological development and highlights the difficulties of protecting intellectual property in the modern technological environment.

Paul Goldstein has contributed significantly to the study of international copyright law and the impact of globalization on copyright protection.

Reports and publications of the World Intellectual Property Organization have also emphasized the need for adapting copyright systems to digital technologies. Recent literature up to 2023 increasingly focuses on artificial intelligence and its impact on authorship, originality and copyright ownership.

The existing literature indicates that while copyright law has developed significantly, technological advancement continues to create new legal challenges.

6. Main Title Analysis

Copyright in the Digital Era: Position up to 2023

6.1 Concept of Copyright

Copyright protects original expressions of authorship. It generally provides exclusive rights relating to reproduction, publication, adaptation, communication and distribution of protected works.

Under Indian law, copyright protects:

- Literary works
- Dramatic works
- Musical works
- Artistic works
- Cinematograph films
- Sound recordings
- Computer programs

Copyright provides both economic benefits and recognition to creators. However, it is not an absolute right and remains subject to limitations and exceptions.

6.2 Impact of Digital Technology

Digital technology has fundamentally changed copyright protection. Previously, reproduction required physical materials and substantial investment. Today, a single computer or smart phone can copy and distribute creative works globally.

The major characteristics of the digital environment include:

- Instant reproduction
- Perfect digital copies
- Global distribution
- Low cost of copying
- Easy accessibility
- Anonymous infringement

These features make copyright enforcement more difficult than in the traditional physical environment.

6.3 Online Piracy

Online piracy is one of the most serious challenges in the digital era. It includes unauthorized copying, downloading and distribution of copyrighted content.

Major forms include:

- Illegal downloading of films and music
- Unauthorized streaming
- Software piracy
- Digital book piracy
- Peer-to-peer file sharing
- Unauthorized sharing on social media

Piracy causes financial losses to copyright owners and reduces incentives for creative production. At the same time, enforcement is difficult because infringing websites may operate from foreign countries.

6.4 International Legal Framework

International cooperation plays an important role in copyright protection.

The **Berne Convention** established important principles such as national treatment and automatic protection.

The **TRIPS Agreement** strengthened international intellectual property protection and enforcement mechanisms.

The **WIPO Copyright Treaty, 1996**, specifically addressed challenges created by digital technology and internet communication. It recognizes the importance of technological protection measures.

These international instruments have contributed significantly to the development of modern digital copyright law.

6.5 Position in India

The Copyright Act, 1957 is the principal copyright legislation in India. It provides protection to authors and owners of various categories of creative works.

The Copyright Amendment of 2012 was particularly important in responding to digital developments. It included provisions relating to technological protection measures and rights management information.

Indian copyright law also recognizes fair dealing for specific purposes, including private use, research, criticism and review. Such exceptions are important because excessive copyright protection may restrict education and access to information.

6.6 Digital Rights Management

Digital Rights Management (DRM) refers to technologies used to control access to digital copyrighted content.

DRM systems may include:

- Encryption
- Password protection
- Access restrictions
- Copy control systems

These technologies are commonly used for e-books, software, films and music.

However, DRM has limitations. Technological protection can sometimes restrict legitimate users and interfere with lawful activities such as research and education. Therefore, technological protection must be balanced with public interest.

6.7 Social Media and Copyright

Social media has created new copyright challenges. Millions of users regularly upload photographs, videos, music and written material.

Many users mistakenly believe that material available online is free to use. However, merely publishing a work on the internet does not remove copyright protection.

Common social media infringement includes unauthorized:

- Reposting of photographs
- Use of music
- Uploading of film clips
- Copying written content
- Modification of artistic works

Social media platforms therefore play an important role in preventing copyright infringement.

6.8 Intermediary Liability

Internet intermediaries include internet service providers, social media platforms and web-hosting services.

An important legal issue is whether these intermediaries should be responsible for copyright infringement committed by users.

Many jurisdictions use a notice-and-takedown system, under which copyright owners can request removal of infringing content.

A balance is necessary because excessive liability may affect freedom of expression, while complete immunity may encourage piracy.

6.9 Artificial Intelligence and Copyright

By 2023, artificial intelligence became a major emerging challenge.

Generative AI can create:

- Articles

- Images
- Music
- Computer programs
- Digital artwork

This raises important questions:

Who is the author of an AI-generated work?

Can an AI-generated work receive copyright protection?

Who owns the copyright—the programmer, developer or user?

Another significant issue concerns the use of copyrighted works for training AI systems. Large AI systems may process enormous quantities of text, images and other content.

By 2023, these questions had become important subjects of international legal debate and litigation. Existing copyright laws were largely designed around human authorship, making AI a significant challenge for future legal development.

6.10 Cross-Border Challenges

Digital copyright infringement is frequently international in nature.

A copyright owner may be located in one country, while the infringing website operates from another country and users access the content worldwide.

This creates difficulties relating to:

- Jurisdiction
- Identification of offenders
- Enforcement of court orders
- Applicable law

Therefore, national legislation alone cannot effectively solve all digital copyright problems. Strong international cooperation is essential.

7. Findings

The study makes the following findings:

1. Digital technology has fundamentally transformed copyright law and its enforcement.
2. Online piracy remains a major threat to copyright owners.
3. Traditional copyright enforcement mechanisms are often slow in the digital environment.
4. International conventions have contributed significantly to digital copyright protection.
5. India's Copyright Act provides an important legal framework but requires continuous adaptation.
6. Social media and digital platforms have increased the complexity of copyright infringement.
7. Technological protection measures are helpful but cannot completely eliminate piracy.
8. Artificial intelligence presents new challenges concerning authorship and ownership.
9. Cross-border infringement requires international cooperation.
10. Copyright law must maintain a balance between creators' rights and public access to knowledge.

8. Suggestions

The following suggestions are offered:

1. Copyright laws should be regularly updated to address emerging technologies.
2. India should develop clearer legal principles concerning AI-generated works.
3. Specialized mechanisms should be established to combat digital piracy.
4. International cooperation should be strengthened for cross-border enforcement.
5. Public awareness regarding digital copyright should be increased.
6. Internet intermediaries should adopt effective mechanisms against clear infringement.
7. Courts should provide faster remedies for online copyright violations.
8. Digital rights management should protect copyright without unnecessarily restricting legitimate use.
9. Fair dealing provisions should be preserved for education, research and public interest.
10. Judges, lawyers and enforcement agencies should receive training regarding digital technologies.

9. Conclusive Remark

The digital era has significantly changed the traditional understanding of copyright. Digital technology has created new opportunities for authors to distribute their works globally, but it has also increased the risk of unauthorized copying and piracy.

Up to 2023, copyright law has attempted to adapt through international treaties, legislative amendments, judicial decisions and technological protection measures. Nevertheless, the rapid development of technology continues to create new challenges.

The emergence of artificial intelligence represents a particularly important turning point in copyright law. Questions relating to AI-generated works and the use of copyrighted materials for AI training require careful legal consideration.

The future of copyright protection depends upon developing a balanced legal system that protects creativity and economic rights while also promoting education, innovation, freedom of expression and access to knowledge. Copyright law must therefore remain flexible and technologically responsive to effectively address the challenges of the digital age.

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