
REFORMING IP LAW FOR THE DIGITAL AGE: A CRITICAL STUDY OF LEGAL RESPONSES TO ONLINE CONTENT PIRACY

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ABSTRACT

The fast expansion of digital technologies and the distribution of online media have changed content creation, consumption, and dissemination in a major way and at the same time made piracy in the online world even more difficult to control. This dissertation presents a thorough critique of the present laws on intellectual property (IP) and their effectiveness in dealing with the problem of piracy of online content, as well as the need for legal reform in the digital age. The study starts with discussing the traditional copyright barriers and points out the inadequacies of the laws that were made for physical media and their slow response to cope with the online infringement that is instantaneous, global, and anonymous.

The investigation investigates various legal means, such as copyright enforcement provisions, anti-circumvention measures, safe-harbour rules for intermediaries, and judicial remedies, and assesses their sufficiency in the fight against piracy and digital content protection. It reviews landmark court decisions and legislative progress, as well as international treaties like the WIPO Internet Treaties, and explores how they have affected the setup of national legal systems. Online intermediaries, digital rights management (DRM) technologies, and notice-and-takedown procedures are highlighted, as well as the increasing conflict between user rights, freedom of expression, and strict enforcement models.

This dissertation consists of doctrinal research, comparative analysis, and policy review that led to the identification of the gaps and inconsistencies in the regulation of online piracy. It advocates for a modernised, technologically responsive IP framework that caters to the interests of the creators, consumers, and digital platforms alike. The study ends by making recommendations that target the enhancement of cross-border enforcement, the strengthening of intermediary accountability, and the promotion of innovative, user-centric approaches to digital content protection.

Keywords: Intellectual Property, Online Infringement, Piracy, Digital Rights Management, WIPO

Introduction

The digital revolution has changed all global content creation processes, which include content distribution and content consumption. The information ecosystem exists today because of two decades of technological development, including people having access to fast internet and smartphones, and cloud storage systems. Digital platforms empower users to obtain instant access to multiple creative works, which include films, music and software, books, academic materials, and user-generated content. The shift in the media landscape has decreased entry obstacles for content creators because it enables all people and small organizations to make and share content at a level that has never existed before.

The development of content distribution has advanced through streaming platforms and social media networks, and online marketplaces, which function as main content distribution centres. The streaming industry has evolved through subscription-based streaming services, which have developed new business models that make their offerings easier for users to access and use. The platforms changed the entertainment industry while creating new income sources for artists and their business partners, which helped the digital economy develop. The digital world has grown into a second system which exists without control and enables people to share protected content through internet platforms which people call online content piracy. The digital world now contains this practice, which functions in tandem with authentic content distribution channels. Intellectual property rights face major enforcement difficulties because people can easily duplicate digital content and change it and distribute it to others.

The evolution of online content piracy has progressed in tandem with the development of the internet. The initial process required people to manually create illegal copies by burning CDs, copying DVDs, and trading physical items. The activities remained illegal, yet authorities found it easy to enforce because all incidents occurred within nearby areas. The late 1990s brought an entire transformation to the situation. Napster emerged as a peer-to-peer sharing platform that enabled users to exchange files without any intermediary presence. Piracy expanded beyond its previous boundaries, which restricted it to physical items and local networks, because it now allowed worldwide distribution through an unmonitored system. The shutdown of Napster led to the creation of even more advanced tools. Users of BitTorrent could distribute file fragments to one another instead of sending complete files. The system created an enforcement nightmare because it streamlined operations, which, without a central hub, gave

active users complete control.

The situation continued to progress. Nowadays, streaming content piracy exists as a universal practice. People can view movies and shows through dangerous websites that require no downloads. The process provides rapid access while minimizing potential dangers and creating challenges for real-time security monitoring. Encrypted chat applications and social media groups enable people to share pirated materials through secret exchanges. The legal systems require time to develop new rules. New technologies enable criminal activities that creators designed to work for future law enforcement. The time gap between passing new legislation and discovering new pirate methods keeps growing. The persistent existence of piracy results from our legal system, which fails to create enough obstacles against it.

1. Introduction: Digital Transformation and the Rise of Online Content Piracy

1.1 Nature and Scope of Online Content Piracy

Online content piracy refers to the unauthorized copying and distribution of copyrighted works through digital means. It includes activities such as downloading films, music and software, streaming content from unauthorized sources, sharing files through peer-to-peer networks and cyber-lockers, and cloud storage. Content is also distributed through social media platforms and messaging apps.

The range of Pirated content beyond entertainment goes up to software, study material, e-books, and paid services. The nature of the internet allows for piracy networks to exist across multiple geographies, thus using legal differences and a lack of enforcement across jurisdictions for their benefit. The minimal skill required to access and use these methods makes them widely accessible to the general user, thereby normalizing piracy, which does not seem to be recognized as a serious criminal act or moral failing by many users.

1.2 Impact of Online Piracy

Online piracy affects copyright holders but also shapes market structures, governance structures, and social attitudes towards Intellectual Property Rights (IPR) among others. Its effects go far beyond the economic, but extend into legal frameworks, consumption patterns,

innovation, and the legal system.¹

1.3 Economic Impact

There are vast economic consequences for IPR-dependent industries such as the music industry, film, publishing and software. In a pirated industry, there is a definite loss of revenue; the creators (as there is no revenue for the legitimate industry) can lose potential consumers who might otherwise pay for access. This issue affects smaller creators even more. Furthermore, piracy alters the functioning of the market: In legitimate markets, there is an optimum price for goods reflecting their cost of production and distribution. Pirated goods can be given away free, hence leading to reduced consumer willingness to pay for the legitimate good and thereby devaluing IPRs. It also decreases incentives for investment, especially in high-risk industries such as film, where the uncertainty of returns is already high.² In the context of piracy, this leads to higher investment risks and greater investor apprehension. Finally, it reduces the number of jobs both directly and indirectly for actors and creators in related industries such as distribution and retail. It may be acknowledged that the positive effects of piracy, such as increased exposure for emerging creators that lead to downstream revenue streams or merchandise, may exist, but such benefits do not mitigate the vast overall economic damages piracy causes to creators and the industry.

1.4 Legal Ramifications

Traditional methods for protection are already failing to protect IP as the laws pertaining to physical copies do not translate to the digital realm. While it is possible to obtain injunctions and damages from infringing content, there is no mechanism to tackle its rapid and global spread. Moreover, the same piece of content can be hosted in and out of multiple jurisdictions, thereby rendering current enforcement strategies ineffective as the source could be somewhere else, and it would become extremely difficult and tedious to enforce a particular law in every country. The user anonymity made possible by the internet has added yet another layer of complexity as identifying the source or the users themselves has been made a difficult task. While several measures like blocking injunctions and intermediary liability principles are being introduced in certain jurisdictions, there is always an argument on their overall efficacy and

¹ N.S. Gopalakrishnan & T.G. Agitha, *Principles of Intellectual Property* (2nd ed., Eastern Book Company, 2014).

² P. Narayanan, *Copyright and Industrial Designs* (4th ed., Eastern Law House, 2017).

whether they restrict the user's right to information and freedom of expression and access to digital material.

1.5 Social Implications

It increases accessibility to copyrighted works for certain demographic groups who may otherwise lack the resources, but on the other hand, they do not consider the creator's right to compensation and the subsequent effect it may have on innovation, creativity, etc. Piracy is often trivialized due to the commonality of the practice and lack of perceived legal consequences, thus shaping user perceptions of the practice. Whilst piracy has undeniably created the demand for on-demand media and is perhaps one of the key drivers for the proliferation of paid streaming platforms, it also damages the legitimate creators by denying them the fruits of their labour.

1.6 Difficulties in Regulation

Given the stateless, global, and technological nature of the internet, regulating online piracy faces challenges. It crosses borders, leading to complex issues between jurisdictions that have different approaches towards IPR protection and enforcement. Technology is also constantly evolving with innovative methods of piracy being introduced regularly; hence the legal system struggles to keep pace. Intermediaries are central to the propagation of such content, but their role is also controversial, given their potential liability for copyright infringement and the question of whether such laws would impose undue restrictions on their business and freedom of speech. The remedies available in legal systems, such as injunctions or damages, often prove inefficient, since one piece of content can be replaced in seconds by another at a different web address or on a different server. There is always a delicate balance between protecting the creator's IP rights and ensuring fundamental rights of privacy, access to information, and expression are not encroached. This issue is further complicated by the nature of users; in cases, piracy is undertaken as an inexpensive means of accessing content, and legal enforcement needs to keep up with what is both legally feasible and behaviourally possible.³

1.7 Statement of the Problem

Despite having various laws and treaties governing Intellectual Property Rights, online piracy

³ Lawrence Lessig, *Free Culture: The Nature and Future of Creativity* (Penguin Press, 2004).

continues to flourish, which suggests a disconnect between these legal and ethical frameworks and the reality of the digital world.⁴ Current IPR laws that were formulated keeping in mind the physical distribution of content have failed to consider the sheer speed and anonymity that digital content can achieve and have become ineffective as an enforcement mechanism in the digital environment. The existing legal framework also faces the issues of jurisdiction due to content spanning across different countries. The complex liability principles concerning internet service providers and online platforms complicate regulation. Further, the widespread nature of piracy has bred a false sense of security among users and a general lax attitude towards its ramifications which does not instil fear and thereby acts as a major deterrent for piracy. Finally, Intellectual Property Rights should be balanced with other fundamental rights such as freedom of speech and access to information. Hence, the present study analyses how the current laws are failing the digital content and how these frameworks need to evolve in order to take this technological change into account.

1.8 Nature of Digital Content

Digital content, unlike physical media, has some distinct qualities to it. Firstly, it is intangible and exists as information that can be easily stored, transmitted, and replicated. One of the primary characteristics of digital content is its infinite replicability. As digital files are easily replicated at very low cost and spread instantaneously, it becomes difficult to preserve their scarcity value and thus to assert intellectual property over such data, especially compared to physical goods.

1.9 Growth of Digital Piracy in India

India's increased Internet usage, affordable data, and the subsequent boom of the Over-the-Top (OTT) services sector have led to widespread content Piracy. The increased proliferation of the Internet, especially in semi-urban and rural India, provided users with access to digital content. The decreased cost of data through affordable plans provided by services such as Reliance Jio amplified the content consumption, also by facilitating easier access and downloading of pirated material. OTT content is distributed through various platforms such as Netflix, Amazon Prime, Disney+ Hotstar, etc. But often, due to multiple subscription requirements, content availability being on different platforms, and the fragmentation of content, the cost of legally

⁴ OECD, *Piracy of Digital Content* (OECD Publishing, 2009).

obtaining desired content rises. This makes most consumers turn to alternative means of access and piracy. This is compounded by user preferences for real-time access to content, which is often frustrated by geographical limitations or delays in release, forcing them to resort to piracy. Furthermore, distribution networks such as WhatsApp and Telegram make it extremely easy to share pirated material throughout networks, making it harder for any sort of monitoring or restriction to occur. Hence, while legal issues play a major role in creating and propagating online Piracy in India, technological, behavioural, and economic issues also play a significant role.

2. Conceptual and Theoretical Framework of Intellectual Property and Digital Piracy

2.1 Meaning of Intellectual Property

Intellectual property (IP) is a term describing legally recognised rights associated with the creation or output of the human mind: literary works, artistic works, invention, designs, symbols and trademarks. IPs are intangible in contrast with the material forms they can take, such as a printed book or a DVD recording of a play or movie, while at the same time the nature of ownership permits the transfer, licensing and marketing of such rights. The underlying justification of the concept is to reward creative work either through a natural rights approach or a utilitarian philosophy under which copyright protection is beneficial because it serves to encourage the creation and dissemination of knowledge and creative works. Forms of intellectual property include patents, trademarks, industrial designs, geographical indications and copyright. While all forms of IP may have issues to contend with in the digital environment, copyright in particular suffers as it pertains to literary, artistic, musical and visual works that are more easily copied and disseminated by a user-friendly digital format.

2.2 Basics of Copyright Law

In India copyright is governed by the provisions of the Copyright Act, 1957 which accords exclusive rights to authors over their work for a defined period of time, and is in line with international provisions in the form of Berne Convention and TRIPS Agreement.

Copyright owners possess both economic rights (right to reproduce, publish, communicate to the public and adaptation) and moral rights (right to be identified as the author, and the right to protect their work from distortions or disfigurements).

2.3 Concept of Infringement

Infringement of a copyright takes place when any of the exclusive rights of the copyright owner are violated without authority. This includes unauthorized copies, publication, performance and distribution of copyright works. Digitisation has introduced a new dimension with acts like downloading, uploading and streaming of works and it is debatable how many downloads, uploads or streams are infringements if they don't result in further copying and distribution, blurring the definition of what constitutes an infringement.

2.4 Types of Digital Piracy

Digital piracy takes many forms which appear to be in a constant state of evolution and interconnection with each other:

(a) **Torrenting-** The oldest of the modern techniques, torrenting is essentially file sharing where each file is broken down into small fragments that are shared among many different individuals without use of a central server. This decentralised method of file sharing although not popular in use among many for viewing, remain the source for downloading high-quality content and for subsequent redistribution by others.

(b) **Streaming piracy-** this is the most widely used and accepted of the digital piracy techniques at the current stage, showing the trend away from buying goods toward 'accessing' products, enabling consumers to watch any content without need for downloading it to their systems. Illegal streaming websites, illegal TV channels and aggregators all serve the purposes of allowing the audience to view content, although they do it illegally. Their effectiveness relies on dynamic content with new websites and sources cropping up with regularity and mirroring of websites to prevent blocking by rights holders.

(c) **Cyberlockers-** these are cloud based services for hosting files which are accompanied by sharing features enabling distribution of illegal file sharing through links, this type of sharing suffers from an issue of legalities around the hosting of illegal files, which is often in locations which do not respect IP laws, anonymous uploaders and the re-upload of content even after it has been detected.

(d) **Social media piracy-** social networking sites and Instant messaging applications also offer a fertile ground for digital piracy. The ability to stream content from directly upload, or a link

which the rights holder does not possess, or live streams and direct forwarding through messaging application further exacerbate this, while raising question on the responsibility and role of the digital intermediaries.

2.5 Traditional vs Digital Infringement

The nature of piracy is significantly different from that of traditional infringement of copyrighted material where actual tangible objects such as CDs and books needed to be duplicated. Traditional copyright piracy can be localised; involved identifiable parties; and was tackled with enforcement measures such as raids and confiscations of unlawful products. Digital copyright piracy is intangible, can take place anywhere in the world simultaneously and is negligible to produce at virtually zero marginal cost of multiplication. The duplication process occurs simultaneously at hundreds of thousands of locations globally, making identification and enforcement a much more complex task and the presence of technologies such as anonymous networks makes finding wrongdoers an impossible mission in most circumstances. While law enforcement has traditionally tried to use measures like website blocking and dynamic injunctions, the nature of digital piracy and infringement in the new century is one of the evolution of a fundamentally different phenomenon as opposed to the modification of old ways.

2.6 Theoretical approaches

Economic theory of piracy- A rights holder's decision to initiate piracy is based on an assessment of expected risks and returns, following rational choice theory. While the decision to pirate will always be influenced by the price sensitive, ease of access and availability of the legal content, a lack of strong enforcement and perceived opportunities of doing so, piracy has been cited to not necessarily decrease consumption levels for any content. This effect may, in many cases, be marginal and not commensurate to the negative economic impact of such piracy.

2.7 Access versus Ownership

The digital economy has a tendency towards services than goods. The rights holder's ability to license rights and allow usage, instead of selling outright possession of the goods or copies thereof, will have implications, as the user gains a right to access or view the product, instead

of being given ownership. This could lead to situations where users' expectations to consume may be higher than what their legal rights actually afford them. This has implications especially for developing countries where access to legal content, cost and regional rights restrictions can lead to greater reliance on digital piracy as a more attainable alternative; legal solutions should strive to strike a balance between ease of access for consumers and equitable recompense for creators.

3. Online Piracy in India: Legal Framework and Judicial Response

3.1 Legal Framework

The problem of piracy online is tackled in India through a mix of statutes, Copyright Act, 1957, IT Act, 2000, IT Rules, 2021, and various other sector-specific laws, i.e., Cinematograph Act, 1952. Collectively, they present a complete but also fragmented picture addressing both traditional and digital copyright infringement; though, how far this is successful in combating modern forms of piracy is a matter of debate.⁵

(a) Copyright Act, 1957

The Copyright Act of 1957 is the bedrock of IP laws in India. It protects literary, dramatic, musical, and artistic works, cinematograph films, and sound recordings. Sections 63 and 63A penalise copyright infringement and stipulate imprisonment (6 months to 3 years) and fine as punishment. Uploading, reproducing, and distributing copyright works on the internet without a license amounts to infringement, and a prosecution is initiated under the said provisions of the Copyright Act.

Though the Act had adequate remedies to combat physical copyright piracy, in absence of specific digital definitions, interpretation has to be extended and adjusted to meet digital environment with respect to 'reproduction' and 'distribution'.

(b) Information Technology Act, 2000

IT Act comes as supplementary legislation to Copyright Act, dealing with cyber offenses in general. Section 66 deals with unauthorized access and data theft. Although the Act does not

⁵ Tarleton Gillespie, *Custodians of the Internet: Platforms, Content Moderation and the Hidden Decisions that Shape Social Media* (Yale University Press, 2018).

regulate infringement of copyright, it deals with technology where these offenses can be committed.

(c) Intermediary Liability (Section 79)

Section 79 IT Act provides for a "safe harbour" provision for intermediaries, enabling them not to be liable for data or transmission on their platform, given they meet due diligence requirements as per the IT Rules 2021. They must expeditiously remove such material upon being notified.

The issue here is that this framework is still reactive and not proactive, since there is no obligation on intermediaries to take action to prevent content on their platform without notice, which leads to pirated content reaching wide circulation before it is even addressed.

(d) Safe Harbour and Due Diligence

The notion of "safe harbour" allows the intermediaries to carry on business without fearing liability. It also prevents undue burden on the internet service providers and innovators. This can, however, lead to cases of under-enforcement as it is reactive, not proactive. While IT Rules 2021 is supposed to increase accountability of intermediaries through prescribed compliances, it is perceived to encourage censorship and over-regulation of the internet in certain sections of the internet fraternity.

(e) DRM and Anti-Circumvention measures

Section 65A and 65B introduced by the Copyright (Amendment) Act, 2012 makes penal offense the circumvention of digital rights management systems and tampering with rights management information. This is in sync with global norms of protecting online copyright works. However, since digital rights management systems can be easily circumvented, technological protection measures become obsolete quickly and render Section 65A and B less effective over time.

(f) Other Legal Provisions

The Jan Vishwas Act, 2023, recently amended certain provisions to decriminalise minor offenses of copyright law, replacing imprisonment with monetary penalty. This may result in

increased compliance and fewer suits but could also weaken the deterrent value of punishment. Cinematograph Act 1952 provides punishment for unauthorised recording of cinematograph film or its distribution, which could prevent piracy before the release of the film, but is not efficient against pirated works on the internet.

Through various legal developments, such as John Doe (Ashok Kumar) orders and dynamic injunctions, courts have sought to make enforcement more effective and responsive. They allow effective action against unnamed pirates and mirror sites to circumvent piracy online. However, judicial action remains reactive against dynamic new trends of piracy.

Despite having a mix of criminal and civil remedies for dealing with online copyright infringement, enforcement has remained poor due to various reasons such as low conviction rates, jurisdictional issues, and highly adaptable piracy networks. While, website blocking offers a temporary solution, pirates invariably adopt new domain names in no time.

3.2 Judicial Trends and Enforcement

The courts have played a crucial role in shaping how IP laws are interpreted and enforced in the digital environment, especially concerning intermediary liability and website blocking.

4. Judicial Approaches, Intermediary Liability and Challenges to Enforcement in the Digital Environment

4.1 Intermediary Liability

Internet intermediaries (ISPs, social networking sites, streaming platforms etc) act as the gatekeepers of information distribution in the digital world and often bear the onus of being their respective intellectual property right enforcement agents; the reason being, many a time, access is restricted or denied to unauthorized content upon notice.

A number of problems arise from a regime relying on intermediaries to enforce IP rights. Firstly, the enforcement power is concentrated in the hands of non-government players who do not have the necessary knowledge and objectivity to balance the rights of all concerned parties. Second, because they fear incurring liability under existing legal regimes, many intermediaries err on the side of caution, resulting in the removal of too much content, thus affecting the freedom of speech of the legitimate users. Thirdly, they possess technology that is effective at

dealing with rights infringements, but the usage of such technology raises new issues related to their accuracy, transparency, and accountability. Thus, intermediaries are the enablers as well as the regulators.

4.2 Notice-and-Takedown Mechanism

The Notice-and-Takedown (NATD) mechanism is the main way by which intermediaries can be asked by rights holders to cease access to any infringing content; this is a relatively efficient remedy though not without its flaws. A key flaw in NATD systems is the "whack-a-mole" effect where the offending content simply reappears on other servers or new domains. This continuous cycle of notice-and-takedown keeps the burden on the rights holder, who may not have the necessary technological ability to monitor all locations of his infringing content. This can lead to abuse as well since over-sensitive intermediaries would take down lawful content by taking down copies on other domains as well without any consideration for fair dealings or research purposes. While imperfect, this NATD regime remains crucial to rights holders' ability to address infringements quickly and efficiently and when coupled with dynamic injunctions and technology assisted monitoring, it can prove to be more effective.

4.3 Challenges to Enforcement

Online IP enforcement poses some distinct challenges that may not exist in the physical world:

Jurisdictional challenges: The borderless nature of the internet means a piece of pirated work can be uploaded to servers in one jurisdiction and accessed from many others, and it is difficult for rights holders to enforce their IP in each relevant jurisdiction simultaneously as legal systems are not uniform. This is compounded by a lack of international cooperation in IPR enforcement.

Technological challenges: The technological features of digital works enable them to be reproduced endlessly, without any loss of quality and transferred instantaneously at virtually zero cost, thus ensuring instant dissemination of any illegal material at the expense of rights holders. Techniques like caching, hyperlinking and peer-to-peer sharing further facilitate rapid, decentralized transmission of content. Additionally, the anonymity available through various VPNs and encryption software poses immense problems for the detection and prosecution of

online rights infringers.⁶

All these features combine to create a virtual environment for the rapid and ubiquitous spread of pirated works that is difficult to control by conventional methods.

4.4 Problems with the Indian regime of Copyright Law

A glaring weakness in the Indian legal system governing copyright law is its failure to account for the emerging digital realities, such as the possibility of deep linking, embedding and framing. These concepts are entirely absent from the Copyright Act, 1957, originally conceived for physical distribution, thus, are essentially being relegated into a legal gray area where courts must apply general principles in relation to a technology they might not fully understand. Framing and embedding allow information from a separate server to be displayed on a third-party website, creating the impression that the content belongs to the former website, thereby harming rights holders, without actual reproduction of their copyrighted work. They do not take away the rights of the owner. The Indian stance relies on NATD systems for enforcement, thereby pushing the onus on the rights holder, instead of addressing the problem at its roots, the way the US and the EU laws do. This is also despite the presence of specific provisions concerning intermediary liability in US Copyright Law and EU directives. National IPR Policy 2016 acknowledges the importance of IP protection but doesn't focus on the new digital challenges. Moreover, there is difficulty balancing protection and freedom of expression as over-regulation may affect access and protection of users' rights.⁷

4.5 Case Study: Telegram

Telegram is one of the many examples illustrating the changing landscape of piracy and the enforcement mechanism of IPR regimes; it not only enables the massive distribution of copyrighted content through channels but also makes pirated material easily accessible through groups where the copies are systematically shared. The accessibility and low cost of downloading pirated content, largely driven by economic factors of people not being able to afford subscription-based services, as well as by convenience, is one of the main drivers. With these emerging issues on the horizon, the enforcement challenges become more severe as traditional techniques can't keep pace with technological advancements; the government has,

⁶ J. Litman, *Digital Copyright* (Prometheus Books, 2001).

⁷ World Intellectual Property Organization (WIPO), *WIPO Copyright Treaty* (1996).

however, stepped in to some extent in the past, with directives to Telegram to shut down channels sharing pirated content. This is an indication of the rising awareness and focus on the issue but it has its own limitations; the government also lacks the resources and technology to monitor effectively the distribution and sharing of illegal content across multiple servers.

5. Empirical Analysis of User Behaviour and Attitudes toward Online Piracy

5.1 Introduction

While the doctrinal and comparative analysis of intellectual property law and online piracy has been the focal point of the preceding chapters, an empirical analysis of how the law actually works has equal importance. The continued prevalence of online piracy, even with statutory provisions and judicial intervention, indicates that the law is but one aspect of piracy and is largely determined by other behavioral, economic and accessibility factors.

This empirical study is an attempt to examine the actual behaviour, awareness, and attitudes of users with respect to piracy. This study aims to bridge the divide between legal theory and practical realities by determining the motivations behind users engaging in piracy, their awareness of the legal implications associated with it, and how they weigh these implications against the benefits of content access, availability, affordability, and the role of digital platforms. By merging empirical findings with a legal analysis of these results, this chapter seeks to bring light to the socio-legal nature of online piracy and test the effectiveness of legal frameworks currently in place.

5.2 Research Methodology

A quantitative approach has been undertaken for the present research. The method of questionnaire distribution was used; the responses were collected using Google Forms. The questionnaire was aimed at individuals between the ages of 18 and 35, as this demographic extensively consumes digital content. A total of 16 responses were collected, consisting of students and working professionals from various backgrounds. The questionnaire examined the following key factors: consumption patterns, sources of content consumed (legal vs. Illegal), causes of piracy, awareness of provisions regarding piracy, and perception towards appropriate punishments. The data collected was analysed using percentage methods and presented in tabular format with visual aids such as pie-charts. However, limitations that exist in the study

are a small sample size and the nature of self-reported data, which may not always be true to the user's actual behaviour, as there may exist factors such as bias or under-reporting. However, this study gives us useful insights into users' behaviour regarding piracy.

5.3 Data Analysis and Interpretation

Access to pirated content

From the data, it is evident that most of the respondents have consumed pirated content, thereby suggesting that it is a rather normal behaviour rather than something that is occasional or individual. It is viewed as something rather convenient to have, rather than illegal. Furthermore, having both legal and illegal sources of content consumption indicates the hybrid nature of content usage of individuals.

Reasons for Piracy

The predominant factors cited are unavailable content, affordability of legal sources, and convenience of pirated sources. Inaccessibility appears to be a strong motivation for piracy, thereby indicating that piracy must be viewed as a substitute for the lack of appropriate legal dissemination channels. Inability to afford these services also forms a major chunk, and this inability becomes even larger due to the fragmentation of subscription channels. Convenience is also the biggest reason that can be given by any respondent, and in unauthorized sources, one has unhindered and easy access.

Awareness of Illegality

A vast majority of the respondents seem to be aware that Piracy is an illegal act; this somewhat negates the assumption that Piracy is only the consequence of ignorance. However, awareness does not directly correlate to the behaviour of the users since a very few had a change of behaviour from being a pirate to a legal consumer. Both a lack of perceived risk and normalization of piracy in the user base play a role here.

Awareness of Legal Frameworks

The respondents were aware of laws such as the Copyright Act and the Information Technology Act, 2000. Despite being aware, their behaviour has not changed to that of a legal user, meaning

mere knowledge of the law is not enough to stop users from violating it. The lack of consequences is again the most important factor contributing to their behaviour of ignoring laws.

Attitude toward Punishment

When it came to strict punishment, the data was equally divided. Some said it would be just for creators, while others saw it as merely an insignificant aspect to address or not to address, due to the inability to pay for these services. There exists a clear need for balanced punishment rather than punitive measures.

Effect of Pricing

The respondents who stated that if the services were less expensive, then they would not pirate the content represented a majority. This reinforces the fact that cost is a significant factor in piracy, few respondents stated they would not change their behaviour irrespective of the cost. So, availability and convenience cannot be wholly compensated by a price change.

Responsibility of Piracy

The responsibility lies on the user, the platforms and policymakers. Affordability and the nature of the platform have both been major contributing factors alongside the user. It therefore becomes apparent that this issue is not solely individual but one with more involved parties.

5.4 Overall Analysis

The empirical analysis of user behaviour and their attitudes toward online piracy have illuminated that online piracy is an increasingly pervasive and normalized form of online content consumption, primarily driven by both behavioural, economic, and structural factors. A significant insight revealed is the disconnect between users' awareness of the illegality of piracy and their actual behavioural compliance, signifying the inadequacy of existing legal frameworks as deterring mechanisms. Economic aspects such as the affordability of legal content and availability of content at a fair price have been highlighted as critical factors; this is alongside the ease of use that informal distribution channels like streaming websites, torrent sites, and social media platforms provide, which have enabled piracy to evolve with technological advancements. The rise of these informal, and largely unregulated, distribution

channels has undoubtedly challenged traditional copyright enforcement.

This analysis further underscores the existence of a divided societal perspective on piracy and its regulation, with significant support against stringent penal measures for pirates, emphasizing the intricate challenge in formulating universally effective, yet socially acceptable, enforcement regimes. Ultimately, online piracy, as evidenced, is an issue of significant socio-legal implication which is best addressed by a multi-stakeholder strategy integrating legal, economic, technological, and behavioural factors rather than by an approach relying solely on stringent legal measures.

6. Critical analysis, legal and structural gaps, and recommendations for reform

6.1 Introduction

The internet and new technology have transformed the creation, distribution and consumption of content and have, in turn, rendered many aspects of existing intellectual property law inefficacious. As demonstrated in the previous chapters, the laws relating to copyright, the Information Technology Act, 1957 and 2000, respectively, continue to permit piracy. The empirical study also confirms that even when people are aware of its illegality, piracy persists.

This chapter discusses critically the structural, legal, and behavioural gaps that plague our legal framework and argues that no amount of legislation can counter piracy; it needs to be attacked from different frontiers-legal, technological, and economic, among others.⁸

6.2 Key Legal and Structural Gaps

(a) Obsolete Laws

The Copyright Act, 1957, was formulated in the pre-digital age, and did not contemplate streaming piracy, deep-linking, distribution of content on digital platforms, etc. Consequently, judicial pronouncements have been based on the forced interpretation of ancient doctrines such as 'communication to the public'. The uncertainty on such an issue has led to the confused and inconsistent application of the laws.

⁸ UK Intellectual Property Office, *Online Copyright Infringement Tracker* (latest report).

(b) Ineffective Notice and Takedown System

The notice and take down system puts the onus of catching infringements on the right holders; however, since this system is reactive and is a 'whack-a-mole' approach where the moment the infringing content is taken down, it appears in several other places, it is hardly effective in curb illegal activities.

(c) Issues in Intermediary Liability

While S.79 of the IT Act provides for immunity on the grounds of 'safe harbour', it extends it only till notice. Therefore, the intervening period permits considerable proliferation of illegal content, and additionally, making the intermediary more liable would either increase the cost of services offered on the internet or invite censorship.

(d) Jurisdictional Hurdles

The Internet transcends national boundaries, and this fact poses several enforcement issues, since the Internet users often reside in different geographical locations and their legal provisions may be different. They can easily utilize legal loopholes to avoid liability for piracy.

6.3 Technological and Behavioural Challenges

The advancement in technology has far outpaced the development of legal systems. The speed and manner of dissemination and duplication by methods such as peer-to-peer networks, encryption, and decentralized networks render our legal efforts futile.

From an empirical viewpoint, piracy is largely fueled by cost and convenience in addition to the availability of information. Moreover, the ubiquity of piracy has contributed to a declining respect for intellectual property, weakening its moral deterrent effect on people.

6.4 Recommendations for reform**(a) Proactive Middleman Responsibility**

We need a hybrid approach to intermediary liability; one that balances immunity granted for hosting content with a mandate to take reasonable proactive steps using systems like automated content recognition to detect piracy of their platforms, while at the same time providing for

transparency and safeguarding against censorship.

(b) Better Enforcement Tools

The need for specialized courts to tackle IP offenses is paramount; equally, we need to formalize dynamic injunctions to enable expeditious tackling of mirror and redirect websites. Collaboration and coordination between different enforcement agencies (such as police, courts, and the ISPs) must be facilitated.

(c) Availability and Affordability of Content

As discussed before, piracy is largely driven by price. Legal avenues must be made as accessible and affordable, with diverse pricing options (e.g., a tier-based subscription, bundled content), and a broad range of content. Decreasing fragmentation will significantly boost the uptake of legitimate content sources.

(d) Awareness and Education of the User

People need to be educated about the benefits of legal consumption as well as the negative ramifications of piracy. Offering incentives such as limited free content and discounts, on the other hand, can further encourage use of lawful channels.

(e) International Co-operation

Effective solutions will invariably involve international coordination to develop common standards and practices and enforce intellectual property rights in cyberspace across nations.

(f) Use of Technology for Enforcement

The use of AI, machine learning, and blockchain technology for content tracking, detection, and for copyright management purposes should be considered, always keeping in mind that privacy and individual rights are not compromised.

The present legal framework has proved inadequate in effectively combating the persistent challenge of piracy, and there is a need to employ a multi-pronged approach through legal reform, technology adoption, economic incentives, and behavioural change to protect the interests of creators and producers of content in the digital age.

Conclusion

The accelerating growth of digital technology has created unprecedented changes in the production, distribution, and consumption of content and this has posed an exceptional challenge to existing frameworks of intellectual property law. The purpose of this dissertation has been to analytically examine the effectiveness of existing legal frameworks, employing comparisons and empirical evidence, in addressing online piracy in India.

This analysis reveals that while India has established frameworks for dealing with online piracy under the Copyright Act, 1957, and the Information Technology Act, 2000, they are not adequately geared towards the digital era. Laws designed for the physical distribution of copyright materials struggle to keep up with the instant, wide, and borderless dissemination of content online. Although several legislative changes and judicial interpretations have sought to close this gap over the years, considerable ambiguity has. The analysis further demonstrates that a purely legalistic response to the issue is insufficient. Notice and take-down mechanisms and injunctions only deal with a particular aspect of the fluid problem of piracy on the digital sphere. The proliferation of mirror sites, decentralized platforms, and encrypted streams has only further complicated the already challenging task of enforcement, and the inherently borderless nature of the internet adds jurisdictional complexities to transnational regulation.

The empirical analysis supports these claims, touching upon the behavioural and economic dimensions of the problem. It was found that despite knowing of the illegality, most people are undeterred in downloading pirated content due to factors such as unaffordability of paid subscriptions, difficulty accessing genuine content, and inadequate distribution mechanisms by copyright holders. An absence of recognition for the widespread impact of piracy, coupled with its subsequent normalization, had diluted the legal and ethical deterrents to it. The empirical analysis placed India between the US and EU countries in terms of its legislative and regulatory response to digital piracy. It lacks the procedural efficiency of the US model and the regulatory clarity of the EU model. Therefore, legislative reforms akin to the ones implemented in the other jurisdictions, which cater to the specific needs for addressing digital piracy, need to be implemented in India. The dissertation has highlighted the multi-stakeholder nature of piracy, involving not only copyright holders and service providers, but also end users, and even policymakers. It was also highlighted that any effective solution must necessarily involve tech-

involved behavioural, economic, and legal remedies.

The suggestions aim at the legislative reform of intermediary liability, improvement of enforcement mechanisms, improvement of accessibility and affordability of copyright materials for end users, fostering behavioural changes among consumers, and enhancing international cooperation. New technology, like artificial intelligence and automatic detection mechanisms, should also play a role in the enforcement of copyright laws to handle the magnitude of infringement occurring on the digital frontier. The primary challenge in enacting and implementing such measures remains in finding the correct balance between protecting the rights of creators and guaranteeing user access. Excessive regulation can have a detrimental impact on innovation and the free dissemination of knowledge; conversely, insufficient regulation will not incentivize the creation of original works. The balance between these two has to evolve according to changing needs and technologies.

In conclusion, the dissertation emphasizes the imperative for an adaptable, multi-pronged approach to the issue of intellectual property in the digital age. The implementation of legislative changes along with technological, social and economic measures would help create a viable framework for both preventing piracy and fostering creativity.