

**THE VARIOUS ISSUES IN CYBERSPACE THAT ARE NOT
ADDRESSED BY THE COPYRIGHT LAWS, FROM THE
INDIAN PERSPECTIVE**

**A Dissertation submitted to the National University of Advanced Legal
Studies, Kochi in partial fulfilment of the requirements for the award of
LL.M. Degree in International Trade Law**



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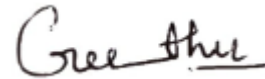
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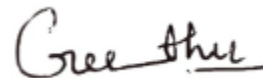
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PREFACE

Myself being an LLM student who specializes in International Trade Law doing my postgraduate studies in the National University of Advanced Legal Studies, it has been always a directional path of thought process in international law for me. I was always fascinated by the knowledge of Intellectual Property Rights and how countries operate in the international sphere. Intellectual property (IP) refers to creations of the mind, such as inventions; literary and artistic works; designs; and symbols, names and images used in commerce. IP is protected in law by, for example, patents, copyright and trademark, which enable people to earn recognition or financial benefit from what they invent or create.

The nature of protection granted to intellectual property is generally in the form of exclusive rights for a limited period of time. Exclusive rights mean rights that can be exercised by the holder of intellectual property right to the exclusion of others. The inventions and creations are thereafter freely available for the benefit of the public. The nature of protection granted for each form of intellectual property and their term varies from the others. Intellectual property has assumed very high value in today's knowledge driven economy. In India the provisions of the Copyright Act cannot be used to interpret the Copyright implications in respect of hyper linking and deep linking, caching at the browser, proxy or the ISP levels also are issues that are not addressed by the Copyright Act.

The primary objective of the study is to examine the nature and the extent of violation of intellectual property rights of copyright in Cyberspace, and to analyse the limitation of domestic legal regimes in combating copyright infringement, to examine the issues with respect to protection of computer software and to analyse the latest judicial trends relating to the copyright issues in cyberspace.

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LIST OF ACRONYMS/ABBREVIATIONS

1. **IP** - Intellectual Property
2. **WWW** - world wide web
3. **FNC** - Federal Networking Council
4. **TCP** - Transmission Control Protocol
5. **IP** - Internet Protocol
6. **E.R.NET** - The Education and Research Network
7. **ISP** - Internet Service Provider
8. **BSNL** - Bharat Sanchar Nigam Limited
9. **VSNL** - Videsh Sanchar Nigam Limited
10. **ICT** - Information and Communications Technology
11. **ITAA** - Information Technology Association of America
12. **IT** - Information Technology
13. **IPR** - Intellectual Property Rights
14. **WIPO** - World Intellectual Property Organization.
15. **TRIPS** - Agreement on Trade-Related Aspects of Intellectual Property Rights

16. **R & D** - Research and Development
17. **HTML** - Hypertext Markup Language
18. **HTTP** - Hypertext Transfer Protocol
19. **RAM** - Random Access Memory
20. **OSP** - Open Source Platform
21. **DRM** - Digital Rights management
22. **IFPI** - International Federation of the Phonographic Industry
23. **WPPT** - WIPO Performances and Phonograms Treaty
24. **ICANN** - Internet Corporation for Assigned Names and Numbers
25. **UNCITRAL** - The United Nations Commission on International Trade Law
26. **IEFTF** - Internet Engineering Task Force
27. **IANA** - Internet Assigned Numbers Authority
28. **DRM** - Digital right management DRM

CHAPTER 1

INTRODUCTION

Property can be physical or intangible. Material things have corporeal property, which is visible in nature it has a physical existence in most cases. It can be seen and felt, for example, land, goods, and so on. Incorporeal property, on the other hand, is intangible in nature and can exist in both material and immaterial entities. Leases, servitudes, easements, patents, copyrights, trademarks, and so on are examples of abstract property that may or may not be apparent. Intellectual property is not tangible and abstract in nature, arising from man's intellect. It is a form of incorporeal property that can be valued at the same level as corporeal property. Salmond has rightly said that "Immaterial product of a man's brain may be as valuable as his land or his goods. The law, therefore, gives him a proprietary right in it..." Human being is the only living species on the planet with a creative intellect. His ability to invent new items and make his life more pleasant and luxurious has resulted from his ingenuity, skill, and imagination. In the twenty-first century, any new items that a person produces by using his mind are considered his property, and such properties are referred to as "Intellectual Property Rights." Intellectual property refers to mind-made works including creativity, skill, labour, and investment, such as musical, literary, and creative works, inventions, symbols, names, images, and designs utilised in commerce, Patents, copyright, trademarks, designs, and geographical indications are all instances of intellectual property rights.

Intellectual property rights motivate and inspire inventors and creators to put their creative efforts to good use for the greater good. It gives the inventor sole ownership of creative and ingenious work.¹The majority of intellectual property protection is awarded in the form of exclusive rights for a set length of time. Exclusive rights are those that the proprietor of an intellectual property right can exercise to the exclusion of others. Following that, the inventions and works are made freely available to the general public. Each type of intellectual property has a different type of protection and a different length of protection. In today's knowledge-based economy, intellectual

¹ Simmonds, *Natural Right of Property on Intellectual Production* YLJ, 23 (1891-92).

property has become extremely valuable.² Since 2005, Indian citizens' awareness of intellectual property has risen tremendously. Intellectual property is an important aspect of the operations and strategy of technology and knowledge-based businesses. Intellectual property has grown critical in various businesses, ranging from entertainment to information and technology, in the current era. As the world has progressed into the twenty-first century, we have become increasingly reliant on technology, particularly the internet, in our daily lives. The internet, like all ground-breaking technological breakthroughs, provides us with the ability to act as a global community, promote, and operate across all boundaries, beyond the jurisdiction of any national government. Copyright is a key category of intellectual property rights that have been substantially influenced by transformation and the advent of the internet age. The internet has been dubbed "the world's biggest copy factory," according to the WIPO's International Bureau.³ While traditional technologies such as photocopying and taping were costly and time-consuming, they created inferior copies of the original, the internet allows for instantaneous copies of the same quality. Copies had to be faxed or couriered to recipients in the past. In only a few minutes, an unlimited number of copies can be sent around the world instantly. Intellectual property rights are intertwined with digital technology, they face a greater threat in cyberspace. As a result, more affirmative protection laws are needed to provide effective legal protection and remedies against persons who infringe on intellectual property rights in cyberspace. Traditional legal systems have had a tough time keeping up with the rapid rise of the Internet and its global influence.

STATEMENT OF PROBLEM

The purpose of this study is to assess the Indian legal system's ability to deal with the problem of protecting intellectual property rights from new risks posed by new informational technology difficulties. The ability of computers to communicate data with other computers via networking has resulted in a significant telecommunication revolution. The concept of cyberspace has emerged as a result of networking. With the introduction of the Internet, some new issues in intellectual

² LIONELL BENTLY & BRAD SHERMAN, *INTELLECTUAL PROPERTY LAW* 4 (Oxford University Press 2003).

³ International Bureau of WIPO, *The advantages of Adherence to the WIPO Copyright Treaty (WCT) and the WIPO Performances and Phonograms Treaty (WPPT)*, WIPO, 5 (2002), https://www.wipo.int/export/sites/www/copyright/en/activities/pdf/advantages_wct_wppt.pdf.

property law have arisen. Unauthorized linking and framing, uploading and downloading of copyright material, cybersquatting, cyber parasite, cyber twins, are all examples of intellectual property rights infringement that have resulted in a paradigm shift in the protection of intellectual property rights. Law is a legal answer to a problem, which might be social, economic, or technological in nature. This broad norm applies to intellectual property law as well. Many hardships have emerged as a result of technical advancements in society, including cyberspace integrity and security, privacy, intellectual property rights, electronic transactions, and so on. With the advent of the digital age, the protection of intellectual property rights has taken on a whole new meaning. "The Internet exemplifies the information society." Information is now at our fingertips, and this has resulted in some significant changes in our culture. In the history of human civilization, we are living in a once-in-a-lifetime opportunity. Individuals, governments, organizations, communities, and other things can exist in a ubiquitous manner both within and outside the borders of nation states thanks to the Internet. In cyberspace, the value of intellectual property is generally understood. As the Internet has grown in popularity, its utility has increased to the point that many objects may be turned into digits using electronic technology (digitization) and then uploaded, sent, or accessed via the Internet. Commercial activities are carried out more conveniently and quickly through the internet since the rise of commerce. The Internet's structure and ramifications are not consistent, and it has infiltrated every aspect of our modern lives. It has evolved into a ubiquitous medium that is required for any type of simple transaction, information, or conversation. Consumer and environmental protection, as well as the invention, use, and protection of information technology, are all governed by legislation. There will be technological ramifications where particular areas of law are weaker or underdeveloped. Infringement of intellectual property rights on the internet has become commonplace in recent years. 'Knowledge, in and of itself, is power,' wrote Francis Bacon in the Middle Ages; yet, nowadays it is a cliché to say that 'information is power,' and that we live in an information culture.⁴The idea of geography has been declared useless by information technology, or the internet, which is now the world's supreme ruler. It raises issues such as the fact that when a person is online, he is simultaneously everywhere and nowhere, and that no single entity or government owns or controls the internet.

⁴ IAN .J. LLOYD, INFORMATION TECHNOLOGY LAW 7 (Butterworths 2000).

However, the field of intellectual property was not spared from this transformation. With the growth of trade in the twenty-first century, companies with intellectual property rights are modifying their business models and looking for new opportunities. Because of the millions of websites on the Internet, the ease with which other's intellectual property can be accessed and copied, and the famed anonymity of this new medium, detecting infringement and identifying the infringer, as well as successful prosecution, is perhaps the most difficult task for intellectual property owners.⁵

Software is a result of human thought, and therefore is appropriately referred to as "intellectual property." Since the last quarter-century, the software business has been one of the fastest expanding. Software is a low-cost, high-intensity sector with low entry barriers. The intellectual property protection of computer programmes, as well as the machines and processes that use them, has become increasingly crucial as a result of technological advancements. Software can now be sent anywhere in the globe thanks to the internet. Software items are often advertised, sold, or licenced in the form of computer readable media, such as diskettes and CD-ROMs, or directly through the Internet, as opposed to being sold as an inherent part of the computer system in the past. They are sold independently of the computer hardware. The object referred to as software is a collection of commands that operate the computer and can be found on a floppy disc, a computer's hard disc, or a CD-ROM. Software has a market value, and given the critical role it plays in today's global economy and development, software protection is a critical issue. In India, software is protected as computer programmes under copyright law, however the breadth of a "literal" element of a programme and the limits of substantial duplication have yet to be determined. Controlling and filtering information that goes through the internet presents a number of practical challenges. Is cyberspace governed by laws, or are Internet activities unregulated? This is a frequently posed question. Cyberspace is governed by the same laws that govern real space. The phrase "cyber law" refers to the regulatory framework that governs the communicative, transactional, and distributive aspects of network information devices and technology. The current Indian cyber law legislation lacks sufficient measures to address issues relating to the protection of intellectual property rights in cyberspace.⁶

⁵ RODNEY.D.RYDER, GUIDE TO CYBER LAWS 149 (Wadhwa Publication 2001).

⁶ JUSTICE YATINDRA SINGH, CYBER LAWS 98 (Universal Publication, 2012).

The Copyright Act of 1957, enacted with the goal of preventing infringement of intellectual property rights. These statutes, on the other hand, do not include intellectual property issues in cyberspace. Even the Information Technology Act of 2000, it appears, does not give sufficient protection. As a result, a thorough study is needed to evaluate the threat to the creator's exclusive right to intellectual property rights in the cyber world, as well as to design suitable countermeasures. In order for the laws to be applicable to cyberspace, To safeguard intellectual endeavours in cyberspace, existing laws must be modified, and new laws must be enacted in a new context. The Internet and its use by the general public in the country is growing at an exponential rate, providing opportunities for both usage and misuse. Courts, legislators, administrative agencies, government bodies, service professionals, educators, and others must grasp cyber laws and related intellectual property laws, as well as their deficiencies, in order to manage this new environment.

OBJECTIVES OF THE STUDY

- I. The primary important objective of the study is to examine the extent and nature of infringement of intellectual property rights of copyright in Cyberspace.
- II. To analyse the scope and limitation of domestic legal regimes in combating copyright infringement.
- III. To examine the issues with respect to protection of computer software.
- IV. To analyse the latest judicial trends relating to the copyright issues in cyberspace.

RESEARCH QUESTIONS

1. Whether there is any present issues or drawbacks in the internet with respect to copyright?
-

2. Whether any reformation needed for the present legal system in India for the protection of copyright?

HYPOTHESIS

Traditional legislation intended to deal with infringements of intellectual property rights are insufficient and unsuitable for dealing with such infringements on the internet, law enforcement agencies lack technological knowledge to effectively control IPR violations on internet and failure to adopt universal approach by nation states to deal with intellectual property rights violations has severely dented the efforts to protect intellectual property rights on the internet. In India, the Information Technology Act, 2000 and The Copyright Act 1957 are deficient in many aspects which renders it inadequate to deal with intellectual property rights issues on the internet.

RESEARCH METHODOLOGY

The research methodology of this paper is based on the Doctrinal Method of Research. A comprehensive study of both the primary and secondary available data is made. A lot of articles have been referred. Apart from the published articles that were accessible through the remote access of NUALS Kochi, I have also relied on web sources, databases, books and law journals. The various primary resources of study, include enacted piece of legislation, judicial precedents etc. The secondary resources include works of various eminent authors' text books, law journals, newspapers etc.

IMPORTANCE OF THE STUDY

The study's significance stems from the fact that it pinpoints the conditions that lead to violation of intellectual property rights in cyberspace. The capacity of a computer to communicate data with other computers via networking has resulted in a significant communication revolution. Because the study's issue is technological in nature, and there are few legal studies on the subject, the current study aids in comprehending the genuine difficulty of dealing with intellectual property rights violations in cyberspace. The study also emphasises the inadequacy of the current legislative framework for dealing with the aforementioned issue. Traditional laws have been proven to be

completely ineffective in dealing with intellectual property issues in online, according to the study. In India, the Copyright Act's provisions cannot be utilised to interpret the copyright consequences of hyperlinking and deep linking, caching at the browser, or ISP level are additional concerns that the Copyright Act does not address. In India, the Information Technology Act, 2000, which is the fundamental source of cyber law, is now dealing with different concerns connected to the use and misuse of cyber technology, with its 2008 revised provisions. The existing Indian Cyber legal framework is supplemented by laws such as the Indian Penal Code, Indian Evidence Act, Indian Contract Act, Intellectual Property Rights regulations, Banking laws, and so on. The necessity for research and development in the protection of intellectual property rights has grown in importance, and it is now a pressing issue. The current study does definitely contribute to and lead to the continued development of cyber laws and regulatory systems in the country, ensuring effective protection of intellectual property rights. Because the study entails a critical evaluation of the legislation and enforcement machinery involved in preventing infringement of intellectual property rights in cyberspace, it is relevant for law makers and attorneys.

CHAPTERIZATION

CHAPTER 1:

Chapter 1 contain Introduction Statement of Problem, Objective of the study, Research questions, Hypothesis, Research Methodology, and Importance of the study then small introductions about the other chapters

CHAPTER 2:

The Evolution and Development of Intellectual Property Rights in Cyberspace is the subject of Chapter 2. This chapter starts with a fundamental introduction to cyber intellectual property, starting with historical information amplification. This chapter discusses the notion of cyberspace, the meaning and definitions of cyber intellectual property rights, and the need to safeguard 'netiquette.' The capacity of a computer to communicate data with other computers via networking has ushered in a huge telecommunications revolution. The concept of cyberspace has emerged as

a result of networking. Intellectual capital has been increasingly important since the dawn of the knowledge and information technology era. As a result, intellectual property and the rights associated with it have become valuable commodities that are carefully guarded. In terms of speed, quality, aesthetics, utility, impact, and convenience, data transmission is considerably superior. The Internet is a global phenomenon. It is undeniable that the expansion and distribution of the internet has become a key metric for assessing an economy's growth and strength. With the introduction of the Internet, some new issues in intellectual property law have arisen. One of them is the infringement of intellectual property rights over the Internet. Infringement of intellectual property right (copyright) in cyberspace is a difficult area to pursue legally.

CHAPTER: 3

The 3 chapter delves into the topic of 'Copyright Violations in Cyberspace.' The growth of copyright protection has always been strongly related to technological development, from the "Gutenberg galaxy" to cyberspace, from the advent of printing to the digital environment, from the development of reproduction techniques to technological convergence. Through the increased use of information and communication technology such as computers and networks, the rapid expansion of the information society has supplied and continues to supply new tools for accomplishing advancement in many sectors of work and life. While ICTs have considerably improved the transportation and communication of data and information, the process of creating knowledge and works of the mind remains basically one of human creativity, for which copyright protection is critical. However, because to the new digital environment, which is distinguished first and foremost by the simplicity with which copyrighted work can be reproduced. A digital content or work may be duplicated quickly and inexpensively without sacrificing quality. Storage is also made easier with digital technology. A single person can copy copyrighted content and transmit it all over the world using information technology. Building a balanced and coherent legal framework that takes into account changes in the economic and socio-cultural model while also guaranteeing fundamental rights in the digital world is one of the most important difficulties in the digital world. Also, in the context of modern information technology, to safeguard writers' incentives to create new works while ensuring fair use of those works. In this new environment,

both national and international legislative and technological attempts have been designed to strengthen copyright protection.

CHAPTER :4

The Copyright Infringement in Cyberspace and Remedies under Indian Laws is the subject of Chapter 4. With the introduction of modern digital technology, access to anything in cyberspace is now just a click away. There is no single law in India that specifically addresses copyright infringement in internet. The provisions of the copyright law are explained in depth in regard to this. The challenges linked with national legislation is investigated. However, the following two Acts may be invoked at best, the Copyright Act of 1957 and the Information Technology Act of 2000 strive to protect software piracy and other cybercrimes, but they do not directly address copyright infringement issues in online, and typical punishments for copyright infringement in internet are ineffective. When opposed to the traditional setting, the digital environment brings unique issues. As a result, it is required to regularly update and improve the relevant legislative rules in order to adapt to the digital world and the development of new technologies. Adjustments must be made in light of current events as well as the unique circumstances of each country. Because digital and network technologies are always evolving, regulations governing them must be updated as well.

CHAPTER :5

The final chapter is conclusion it summarises the entire effort and lists the research findings. It concludes with specific recommendations for protecting intellectual property rights in cyberspace. The current laws governing intellectual property rights in India. The human race is being confronted with new difficulties, crises, and challenges. People are confronted with new types of infringement or disputes that necessitate different types of adjudication and resolution. New laws have been enacted, and more may be required. Members of legislatures, the general public, lawyers, and judges must be made aware of the issues posed by computers, the internet, and information technology. They need to be psychologically and intellectually prepared to meet the new difficulties. The conclusions and recommendations are thought to provide some important insights for the successful protection of intellectual property rights in cyberspace.

CHAPTER 2

A CONCEPTUAL ANALYSIS OF INTELLECTUAL PROPERTY RIGHTS AND THE INTERNET

In this information age there have been very few events and discoveries in the history of mankind that have transformed the entire dimension of human development. Information Technology revolution is one such event in the history of the human race that can be compared with any other big inventions in the past, be it the steam engine or the creation of the wheel. Many have said that the world would not be the same once the Information Technology revolution attains its full maturity. Information Technology had made every impossible task possible. Now the virtual information is only at a mouse click distance from one's personal computer. Intellectual capital has been more important since the dawn of the knowledge and information technology era. As a result, intellectual property (IP) and the rights associated with it have become valuable commodities that are jealously guarded. The globe has seen an increase in cross-border transactions in recent years, particularly in the last decade. Companies operate in several nations and offer their products and services to entities in different locations across the globe. Because intellectual property rights ("IPRs") are country-specific, it is critical to establish and assess the kind of protection provided to IPRs in each jurisdiction in a global economy. Protecting intellectual property rights in online is critical because cyberspace is filled with intellectual interactions.⁷ India's intellectual property systems and procedures are growing more complex and diverse, which is critical for fostering technological innovation for socioeconomic gains.⁸ The essence of life and culture is creative thought and expression. Every piece of artistic expression adds spice to life and enhances our culture. Great men like Leonardo Da Vinci, Shakespeare, Raja Ravi Verma, and Vishnu Sharma, among others, created works that not only impact human behaviour but also provide rich sources of information and culture. The significance of creation to

⁷ DEBORD E. BOUCHOX INTELLECTUAL PROPERTY: THE LAW OF TRADE MARKS, COPYRIGHTS, PATENTS AND TRADE SECRETS 4 (West legal Studies 2000).

⁸ EDWARDS ET. AL., LAW AND THE INTERNET :REGULATING CYBERSPACE 44(Hart Publications Oxford 1997).

humanity is immeasurable, and inventors have always had a unique position in society.⁹ Information in text, graph, or multi-media format is easily accessible over the internet, and the numerous services provided not only assist business, but also aid in the promotion of intellectual property rights. Because human beings are joined by machines in the cyber world, and the cyber world happens to be the world they live in, it is conceivable to have an interplay of all of man's basic rights, known as human rights, in this virtual environment. Certain rights, however, are more sought after in cyberspace than others. As a result, we are frequently presented with difficulties relating to the use of these rights by their owners. The rights that we frequently hear about in cyberspace are now limited, but they are bound to grow in popularity as the Internet and other wonders of information technology become more widely used. The purpose of this chapter is to examine the technological elements of cyber intellectual property in order to have a better understanding of how to safeguard intellectual property rights in cyberspace.

CONCEPT AND DEFINITION OF THE INTERNET

The "Internet" world is as enigmatic as the electronic impulses that make it up.¹⁰ As a result, in order to comprehend the regions where intellectual property rights disputes may emerge, a quick description of what the Internet is required. The word internet is a combination of the words "inter" and "net," with "inter" having a Latin source meaning "between" or "among," and "net" standing for "network." Licklider and Clark defined the need for human-computer symbiosis and suggested an online network system that may facilitate social interactions.¹¹ The Internet is a kind of communication that transcends borders or, to put it another way, functions on a cross-border basis by definition. Users are unaware that they are crossing state borders, and no one can prevent someone from outside the country from accessing a website. The Internet has stretched its tentacles

⁹ DR.KALYAN C.KANKANALA, FUN IP ,THE FUNDAMENTALS OF INTELLECTUAL PROPERTY 42 (Brain League IP Service 2012).

¹⁰ Philip Ruttely, *E.C Competition law in Cyberspace : an overview of recent developments*, E.C.L.R, 203 (1998).

¹¹ J.C.R.Licklider and Welden E Clark, *On-Line Man –Computer Communication*, AFIPS, 113- 128 (1978).

all across the world, encompassing the majority of human activity. Tim Berners-Le deserves credit for developing software that enabled other network providers to connect on the internet and locate stored material using a single address known as the "world wide web" (WWW) for both commercial and private purposes.¹² The meaning of the Internet is best illustrated by the 1996 case of *American Civil Liberties Union v. Reno*¹³, which concluded that " Internet is not a physical or tangible entity, but rather a giant network which inter connects numerable smaller group of linked computer networks. It's a network of networks." The Internet is a collection of interconnected networks. It's an electronic communication network that connects computer networks and organisational computers to promote information flow around the world. The Internet is a massive worldwide network made up of thousands of smaller networks. The "WWW" is a component of the internet. The World Wide Web, a man-computer symbiosis, allowed humans to continue social interactions. The evolution of the internet from the first generation to the present day has aided humans in both routine and non-routine activities. The modern internet, which makes use of TCP/IP parts, has an End-to-End architecture, making it almost unique among communication technologies.

With the Internet's expanding influence on our culture, defining it is becoming increasingly challenging. *The United States Supreme Court identified the Internet as a "unique medium" known to its users as "cyberspace" which is located in no particular geographical location but available to anyone, anywhere in the world"* in offering a legal response to the Internet's impact on our society. Indeed, the Internet can be thought of as our society's electronic nervous system, providing the globe with its dynamic structure.¹⁴ In 1995, the US Federal Networking Council (FNC) issued the following statement:¹⁵ The term "Internet" refers to a universal information system that:

- a) Is logically connected via a globally unique address space provided by internet Protocol or its extensions;

¹² ANDREW MURRAY, INFORMATION TECHNOLOGY LAW 25 (oxford university press 2010).

¹³ American Civil Liberties Union v. Reno 521, U.S.S C, 844 (1997).

¹⁴ Kammal Ahmmad, *The Law of Cyber Space-An invitation to the Table of Negotiations* UNITAR, 17 (2005).

¹⁵ RAHUL MATTHAN, ,THE LAW RELATING TO COMPUTERS AND THE INTERNET, 24 (Butterworths 2000).

- b) Can support communications using the Transmission Control Protocol/Internet Protocol (TCP/IP) suite or its subsequent extensions/follow-ons, and/or other IP –compatible protocols; and
- c) Provides, uses, or makes accessible high-level services overlaid atop the communications and supporting infrastructure defined herein, either publicly or privately.

Essentially, the Internet is a massive and ever-expanding network of computers connected through existing telecommunication networks all over the world. Simply said, it is a network of networks.¹⁶ Although several attempts have been made to define the Internet, there is no universally recognised general description. “A globally networked, computer sustained, computer accessed, and computer generated, multidimensional, artificial or virtual reality,” according to certain definitions. The internet is a brand-new jurisdiction where no existing rules and regulations apply. This jurisdiction does not have a physical location; it is a virtual region that expands and contracts as the various networks and computers that make up the Internet connect to and separate from one another.¹⁷ The Internet is the name for the global network. It's a superhighway for data and information from all over the world that's stored on countless servers on the internet. It is a large global network of computers that share knowledge on every subject of human interest.¹⁸ It enables the interconnection of millions of computers, connecting colleges, offices, individuals, government agencies, corporate entities, and private businesses.¹⁹ In the case of *American Civil Union v. Reno*²⁰, The term "internet" was defined as follows: *"The Internet is not a physical or tangible entity, but rather a giant network which inter-connects numerable smaller group of linked computer networks." It's a network made up of networks. Many networks are linked to other networks, which are linked to other networks in a way that allows computers on any network in*

¹⁶ ALWYN DIDAR SINGH, E-COMMERCE IN INDIA : ASSESSMENTS AND STRATEGIES FOR THE DEVELOPING WORLD 7 (Lexis Nexis Butterworths 2008).

¹⁷ CHRIS REED, INTERNET LAW 1 (Universal Publication 2010).

¹⁸ NANDAN KAMATH., LAW RELATING TO COMPUTERS, INTERNET AND E-COMMERCE 2 (Universal Law Publishing Co.Pvt.Ltd 2000).

¹⁹ *Id.*

²⁰ *America Civil Union v. Reno* 929 F. Supp. 824 (E.D. Pa. 1996).

the system to communicate with computers on any other network in the system. The Internet is a global network of interconnected networks and computers.” The Education and Research Network (E.R.NET), which grew from the connectivity of the American Internet, brought the Internet to India in the early 1990s. On October 20, 1997, the government unveiled its internet strategy, based on the Department's study, in order to boost internet usage.²¹

BACKGROUND AND STRUCTURE OF THE INTERNET

When American military researchers intended to improve their ability to communicate academic research, they came up with the idea of connecting single computers into a network to allow users to exchange ideas and data. The first wide-area network was established in 1965. Despite this, it has been a long road from a network of two computers in the 1960s to the formation of the ARPANET, a military communication network with 300 computers linked in 1981. Before the Internet became what it is today, it took a long time. When Tim Rerners Lee established the Internet in 1989, it became a global network of interconnected computers. The World Wide Web, which is non-proprietary and free, has transformed access to information and communication with people in different parts of the world. This entails that each person connected to the Internet has the ability to converse with and gather information from other users information or to disseminate it globally using a single standard language.²² Local lines or networks connect to regional networks, which connect to the Internet's "backbone," which is a hierarchical structure. Because the Internet has become such an integral part of our lives, a thorough understanding is required to make the best use of this new technology. Much of the physical infrastructure of wires and cables that carry Internet traffic is identical to that which carries telephone calls. When we use a modem to call up an Internet Service Provider (ISP) to access the Internet, we are familiar with this sharing at the household level. The data travels from and to the home computer via the local phone company's wire. The major long-distance carriers, such as AT&T and WorldCom (MCI) in the United States and even globally, and in developing countries, such as India, by BSNL, VSNL, and

²¹ SHAILAJA MENON, PROTECTION OF INTELLECTUAL PROPERTY IN CYBER SPACE 4 (Authors Press Global Network 2003).

²² Christopher Vajda, *Anders Gahnstrom, E.C. competition law and the Internet* E.C.L.R 21,94-106(2000).

now Reliance and other private players,²³ own the infrastructure, which typically consists of fiber-optic lines with huge capacities for carrying data. Consider what happens when a picture is posted onto a website to get a sense of how the Internet operates from a digital copyright standpoint. When an image, such as a photograph or other work, is scanned into computer memory using a digital scanner, it is duplicated, and if the work is protected by copyright, this is a copyright infringement.²⁴

MEANING AND DEFINITION OF CYBERSPACE

Cyberspace is a virtual realm in which a large number of computers are linked together to share data, information, knowledge, and documents. Cyberspace is a virtual space where two or more individuals can connect and communicate with one other, other using electronic means William Gibson, a science fiction author, created the term "cyberspace." When he was looking for a word to express his vision of a global computer network in 1984, he came up with the term "global computer network." All people, machines, and information sources in the globe are linked in this way. Might move around in a virtual world or "navigate" through it.²⁵ Since the term "cyberspace" was coined as a synonym for "internet" and defined as "a network of computers," a network of electronic networks that spans state and national borders"²⁶ The term "cyber," which appears to refer to the science of cybernetics, was well-known. Because it comes from the Greek verb "kubernao," which means "to govern," it was chosen for this purpose. The source of our current verb "to govern" is "steer." It has both a positive and a negative connotation. navigation in an electronic data and control space, which is accomplished by altering the information In one of his works, William Gibson, for example, describes how someone could direct computer-controlled aircraft to a target by entering cyberspace a different goal As a result, Gibson's cyberspace is not

²³HowdoestheInternetworks?https://www.usj.edu.lb/moodle/stephane.bazan/principesinternet/howdoestheinternetwork.pdf.

²⁴ SIMON STOKES, DIGITAL COPYRIGHT: LAW AND PRACTICE 11 (Oxford and Portland, Oregon: Hart Publishing 2009).

²⁵ Lawrence Gomes, *Cyber Crimes*, 4 CRIM.L.J, 185 (2001).

²⁶ *Id.*

a passive data place like a library; its communication channels connect to the real world and allow cyberspace navigators to interact with it. Interact with the environment.²⁷The term "space," on the other hand, has multiple meanings.

- To begin with, a space has a virtually unlimited extension, encompassing so many things that it is impossible to list them all. can never be fully comprehended in one sitting. This is a nice summary of what is presently available. The internet, for example, is a collection of electronic data.
- Second, space connotes freedom of mobility, the ability to visit a range of places
- Third, a space has some type of geometry, which includes ideas like distance and area.²⁸ Dimension and direction

➤ *The oxford dictionary meaning of “cyberspace” is “The notional environment in which electronic communication occurs or virtual reality”. Cyber space is more than a breakthrough in electronic media or in computer interface design. With its virtual environments and simulated world, cyberspace is a metaphysical laboratory, a tool for examining our very sense of reality.”²⁹*

➤ *According to William Gibson: “All those who live by computers will one day commingle in a jointly created virtual reality : “mankind unthinkably complex consensual hallucination, the matrix, cyberspace, where the great corporate hot cores burned like neon novas, data so dense you suffered sensory overload if you tried to apprehend more than the merest outline.”³⁰*

²⁷ DR.AMITA VERMA , CYBER CRIMES IN INDIA 30 (Central law Publications 2012).

²⁸ *Id.*

²⁹ *Id.*

³⁰ Veer Singh and B.B. Parsoon, *Cyber Crimes and the need for National and International Legal Control Regimes* PULR 40, 37-39 (2002).

As a result, cyberspace includes all types of computer-mediated communication and is made up of four elements:

- Computers (ranging from laptops to expert systems);
- Networks that use digital electronics to connect telephones and fax machines;
- Digitally controlled transportation systems (cars, trains, planes, elevators);
- Digitally controlled control systems, such as those used in the chemical industry. Whether it's a procedure, health care, or energy provision.

CONCEPT AND MEANING OF INFORMATION TECHNOLOGY

Information Technology has evolved over thousands of years as a technical support for human thought and communication. In today's fragile economy, it is one of the fastest expanding industries. Information technology can be defined as "any technology that allows us to obtain information."³¹ Since the Sumerians in Mesopotamia established writing around 300BC, humans have been storing, retrieving, modifying, and transmitting information. The abacus, which was utilised by Asians, Egyptians, Romans, and Greeks and can be considered a source of information technology, predates the advent of the computer. Information technology also includes calculators, such as the first mechanical calculator made by German polymath Wilhelm Schickrol and the slide rule established by William Oughtred in 1622. Another example would be IBM's punch card machines, which defined the phrase information technology in the early to mid 1900s.³² In a 1958 article published in the 'Harvard Business Review,' authors Leavitt and Whisler remarked that "the new technology does not yet have a single established name." We'll refer to it as "Information Technology."³³ 'Information and Communications Technology (ICT) was first used in a report to

³¹ ROBERT MERGES, INTELLECTUAL PROPERTY IN THE NEW TECHNOLOGICAL AGE 48 (Aspen Law and Business 2000).

³² IAN J LLOYD, INFORMATION TECHNOLOGY LAW 1 (Oxford University Press 2004).

³³ *Id.*

the UK government in 1997 by Dennis Stevenson, which was promoted by the new National Curriculum Documents for the UK in 2000. There are four major periods of IT development based on the storage and processing technologies used:

- a) Pre-mechanical (3000BC-1450 AD);
- b) Mechanical (1450-1840);
- c) Electromechanical (1840-1940); and
- d) Electronic (1840-1940). (1940-present).

The term "information" refers to "facts or knowledge that has been offered or learned." Data, message, text, image, sound, voice, codes, computer programmes, software, and databases, as well as microfilm or computer generated micro fiche, are all examples of information.³⁴ The term "technology" relates to the creation, modification, application, and knowledge of something. in the form of tools, machines, skills, crafts, systems, and organisational approaches, in order to solve a problem, improve an existing problem solution to accomplish a goal, take care of a perform a specified function or apply an input/output relationship It can also be used to describe the machines, adaptations, arrangements, and a collection of such tools procedures. Human life is strongly influenced by technological advancements. The phrase can be used in a broad sense or in more particular contexts, such as information technology. Recent technical advancements The printing press, the telephone, and the Internet have all helped to reduce, physical barriers to communication were removed, allowing humans to freely connect on a global scale. However, the usage of technology may cause certain issues as a result of crimes that develop as a result of it. of their application³⁵

Information Technology (IT) is a new field of study that deals with the creation, storage, and dissemination of data. Information of various types is selected, transformed, and distributed. "Information technology" is defined by the Oxford Dictionary as "the study or application of information technology." Computers, telecommunication systems, and other storage, retrieval, and transmission devices information."³⁶ "Information technology" is defined by the Information

³⁴ Information Technology Act, 2000, § 2, No. 21, Act of Prliament, 2000 (India).

³⁵ VIVEK SOOD, THE FUNDAMENTAL RIGHT TO INTERNET 12 (A Nabhi Publication 2011).

³⁶ Oxford Reference, <http://www.oxfordreference.com/view/10.1093/oi/authority.20110803100003879> ,(last Visited Aug. 5, 2021).

Technology Association of America (ITAA). Technology is "the process of researching, designing, developing, implementing, supporting, or managing Software applications and computer hardware are examples of computer-based information systems." It is concerned with the conversion, storage, and protection of data using electronic computers and computer software.process, transfer, and retrieve data in a secure manner.³⁷

CONCEPT OF INTELLECTUAL PROPERTY RIGHTS

Property is derived from the Latin word proprius, which meaning "one's own." Keeping this in mind, we can use the term "intellectual property" to refer to the legal rights that can be asserted in relation to a human product intellect.³⁸ Every human endeavour that promotes the economic, social, scientific, and cultural well-being of others. The creation of society's culture must be supported, and the creator must be appropriately compensated. By providing legal protection to his intellectual property, he has been rewarded. The term "intellectual property" is a general term that has presumably become commonplace. in the early twentieth century This umbrella term refers to a collection of legal systems that, to varying degrees, confer ownership rights in a certain property. subject of discussion as a result, Intellectual Property Rights (IPR) are the legal rights that control the use of intellectual property. the application of human intellect creation.³⁹ The industrial revolution in the nineteenth century fueled innovation. Similarly, inventiveness the demand for legal protection of scientists, artists, and literary writers arose as a result of their brilliance. intellectual ingenuity the requirement for comprehensive international treaties that govern the importance of intellectual property was strongly recognised.⁴⁰The first attempt at multilateral cooperation was made. On March 20, 1883, the Paris Convention for the Protection of Industrial Property was signed. In the city of Paris⁴¹ The Berne Convention for the Protection of

³⁷ CS RAYUDH, MEDIA AND COMMUNICATION MANAGEMENTW 466 (Himalaya 1993).

³⁸ KRISHNA KUMAR, CYBER LAWS-INTELLECTUAL PROPERTY AND E-COMMERCE SECURITY 3 (Dominant Publishers and Distributors 2011).

³⁹ DR.M.K.BHANDARI, LAW RELATING TO INTELLECTUAL PROPERTY RIGHTS 2 (Central Law Publication 2010).

⁴⁰ MERGES ROBERT P, INTELLECTUAL PROPERTY IN THE NEW TECHNOLOGICAL AGE 26 (Aspen Law and Business 2000).

⁴¹ David Vaver, *Intellectual Property: The State of the Art*, VUWL REV., 2 (2002).

Literary and Artistic Works was followed by the Berne Convention for the Protection of Literary and Artistic Works. Worked in Berne, Switzerland, in 1886. These two first multinational projects, when combined, have the potential to make a significant difference. The Magna Carta of IPRs, if you will. Since the IPR system began, it has travelled a long way. The IPR jurisprudence has been solidly established since the founding of WIPO and TRIPs established at both the international and national levels

The term "intellectual" refers to a person, according to the Oxford Dictionary. having a high level of intelligence or understanding⁴² Similarly, the term "property" is used implies the right to own, use, or possess something⁴³ It's all about human inventiveness when it comes to intellectual property. Rights to intellectual property are seen as a prize for innovative and skilled execution of concepts. It is, in reality in the sense of intellectual property, more than a reward for developing and executing ideas The term "rights" refers to the acknowledgement given to new intellectual effort. Intellectual property (IP) is a term that refers to a set of a quality that comes from the human mind It's a result of human ingenuity. The word "intellectual property" refers to a variety of different forms of human works. Keep in mind which property rights are recognised, as well as the corresponding legal sectors.⁴⁴ The development, use, and exploitation of mental or creative works are all governed by intellectual property law. work that is innovative. Intellectual property law is a branch of law that deals with legal rights. connected with inventiveness, commercial success, or goodwill Intellectual Property rights are generated by embedding data in a tangible object that may be transferred multiplying an infinite amount of times at various locations around the world. The property is primarily found in the concept, idea, and notion, and then in the real property product, work, and procedure, to name a few.⁴⁵ Thus, the main justification for intellectual property protection is follows:

- a) It stimulates fresh research and development, which is necessary (R & D)
- b) Intellectual property rights protection encourages human inventiveness.

⁴² R.K. SURI AND T.N. CHHABRA, CYBER CRIME 155 (Elegant Printers 2003).

⁴³ *Id.*

⁴⁴ *Id.*

⁴⁵ SATYAWRAT PONKSHE, THE MANAGEMENT OF INTELLECTUAL PROPERTY 4 (New Delhi 1991).

- c) New creativity aids in the development of competitive and long-term business at the national level and on a global scale
- d) Intellectual property is used for cultural, economic, social, and political purposes development of technology
- e) In the field of information technology, intellectual property rights act as a catalyst. development

The World Intellectual Property Organization (WIPO) has expanded the definition of intellectual property. The term "intellectual property rights" (IPR) is defined as "rights relating to:

- a) works of literature, art, and science;
- b) live performances, phonograms, and transmissions by performing artists,
- c) scientific discoveries, inventions in all spheres of human activity industrial layouts, trademarks, service marks, and business names and designations
- d) protection against unfair competition, as well as any other rights that may arise as a result of it intellectual work in the domains of industry, science, literature, or the arts.”

INTELLECTUAL PROPERTY IN CYBERSPACE

Before diving into the Indian IPR landscape, it's important to first grasp the legal definition of the term "property." The term "property" has a wide range of applications, each with a different degree of generality. Property, in its broadest sense, refers to all of a person's legal rights, regardless of type. In law, a man's property is everything he has. In a second, more limited definition, property refers to: not all of a person's rights, but only his proprietary rights (as opposed to his personal ones), but Only his proprietary rights, not his personal rights, are protected. The former is his estate, while the latter is his will. The former is his property, whereas the latter is his status or personal situation. In the third, application, the phrase does not even refer to all property rights, but simply those that are legally protected both proprietary and in rem.⁴⁶ Finally, in the strictest sense of the phrase, it refers only to bodily functions. The right of ownership in a material object

⁴⁶ NATIONAL RESEARCH COUNCIL ET. AL., COPYRIGHT IN DIGITAL ERA: BUILDING EVIDENCE FOR POLICY (National Academic Press 2013).

is referred to as property. All property is either corporeal or intangible. The right to own material things is known as corporeal property. Any other proprietary right in rem is considered incorporeal property.

The concept of incorporeal property is one that has been around for a long time. There are two types:

- (1) Encumbrances such as leases, mortgages, and servitudes, or jura in re aliena and
- (2) Jura in re propria over intangibles like patents and copyrights trademarks, and so on

The second type of incorporeal property is commonly referred to as the rights to intellectual property.⁴⁷ The objects that are present in the virtual realm of cyberspace are not in a form that can be touched, such as land, Property ownership, whether by the government or by individuals, is accompanied by a 'bundle of legal rights,' i.e., the right to possess the property. Property right of control over its use, and right to exclude others from it utilising or entering the property, and the right to enjoy the property in any legal manner as well as the owner's right to transfer, sell, lease, or otherwise dispose of the property will. The term "property rights" refers to all of the rights that the owner has. However, information available in cyberspace in the intangible form of digital information, Computer software, trade secrets, literary works such as articles, novels, and journals, as well as creative works such as paintings, pictures, and sound recordings, etc. For their creator, they are a valuable resource.⁴⁸ However, the vast amount of digital data stored in cyberspace is subject to a number of restrictions. A significant risk that can be easily exploited Digital data can be accessed, used, and shared, edited without the owner's knowledge As a result, digital data has become more accessible. It should also be made the subject of property rights and access should be limited. In terms of ownership, digital information is commonly considered intellectual property, is a mental product, such as an invention, literary or creative works, or symbols In trade, names and images are used. As a result, digital data is vulnerable rights to intellectual property⁴⁹

⁴⁷ FITZGERALD, SALMOND ON JURISPRUDENCE 411-412 (12th ed. 1966).

⁴⁸ ANIRUDH RASTOGI, CYBER LAW OF INFORMATION TECHNOLOGY AND INTERNET 286 (Shree Maitrey Printech Pvt. Ltd 2014).

⁴⁹ *Id.*

MEANING AND DEFINITION OF COPYRIGHT (Copyright from Gutenberg to the new Information Technology)

The term "copyright" comes from the word "copier," which was first used in 1586. In its most basic form, copyright refers to a person's exclusive right to "copy" particular intellectual works that he or she has developed.⁵⁰ According to Black's Law Dictionary, "copyright" means: Copyright is the legal right to use someone else's work. The positive law recognises and sanctioned literary property. Something intangible a legal right provided to the author or creator of a work of literature or art. production, in which he is given sole and exclusive control for a set length of time. the right to make multiple copies of the same, publish them, and sell them.⁵¹ The phrase 'copyright' is frequently referred to as a 'bundle of rights,' which includes the following rights exclusive right to make copies of the work and to create derivative works based on it copyrighted work, as well as to publicly perform or show the work. The legal meaning of copyright is the exclusive right to do or authorize something. Others to perform specific acts in connection with

- a. literary, theatrical, or musical works;
 - b. Works of art
 - c. Films made with a cinematograph; and
 - d. Making a sound recording.⁵²
- *Bharat Law House, Messrs v. M/s. Wadhwa and Co. Pvt.Ltd.*⁵³ In this case it was held that “copyright is the exclusive right to do and to authorize others to do and restrain others from doing certain acts in relation to a literary work which includes work on legal subjects and there will not be any infringement of this right if something is done by the defendant in the exercise of a right vested in him under a contract of assignment with the person who possess that right.”

⁵⁰ DR.B.L.WADEHRA, LAW RELATING TO INTELLECTUAL PROPERTY 263 (Universal Law Publication).

⁵¹ *Id.*

⁵² The Copyright Act, 1957, § 14, No. 14, Acts of Parliament, 1957 (India).

⁵³ Bharath Law House, Messrs v. Wadhwa and Co, AIR 1988 Delhi 68.

- *Associated Electronic v. M/s Sharp tools*,⁵⁴ In this case it was held that “Copyright law is only concerned with copying of physical material and not with the reproduction of ideas and it does not give a monopoly to any particular form of words.”
- According to Anthony Trollope, the great importance of the copyright law is that is a material asset. In this autobiography, he used these words: “take away from English authors their copyright and you would very soon take away from England her authors.”
- According to Copinger and Skone James, “the copyright law is concerned with the negative right as it prevents the copying of physical material existing in the field of literature and Art. Its object is to protect the writer and artist from the unlawful reproduction of his material.”

Copyright is a legal monopoly that protects published or unpublished original work from unlawful duplication without adequate credit and pay, according to Business Dictionary⁵⁵. Advertisements, essays, graphic designs, labels, correspondence, including emails, songs, maps, and musical compositions are all covered by copyright compositions, and product designs, to name a few. A copyright is a legal right granted to the owner or licensee to prevent the copying of their work. Types of cultural, informational, and entertaining productions have been defined. In this way, it safeguards Not the concept itself, but the manifestation of an idea in a tangible form. Traditionally, this is the right had been offered in literary and creative works—authors', playwrights', and artists' creations as well as composers Technological advancements, on the other hand, result in a shift in the economy. This right was also extended to inventors of computer programmes by extending the legislation extending the definition of "literary work" to include computer programmes. Copyright signifies the sole right to copy or reproduce a work that is protected by copyright in any material form, in whole or in part.⁵⁶ The invention of Gutenberg's printing press necessitated the creation of copyright legislation. The English East India Company brought the English Copyright Act of

⁵⁴ DR. P.K .PANDEY, INTELLECTUAL PROPERTY LAW 47 (APH Publishing Corporation 2012).

⁵⁵ Longman Business English Dictionary, (2008) , <http://www.businessdictionary.com/definition/copyright.html>, (last Visited Aug. 22, 2021).

⁵⁶ W.R.CORNISH, INTELLECTUAL PROPERTY 7 (Universal Publishing Co. Pvt.Ltd. 2001).

1942 to India, and so India's copyright law was born. In 1911, the Act was amended. A new Copyright Act was passed subsequently in 1914.

The following were the principal provisions of the Act:

1. the authors' right arose as soon as the work was created;
2. the protection was intended for original material rather than ideas;
3. the right to use the work was extended for up to 25 years after the author's death. By It is governed by the provisions of Article 372(1) of the Indian Constitution. Even after India's independence in 1947, it was still relevant. With The Copyright Act was reenacted in 1957 with the goal of combining and amending the prior law.⁵⁷

The Copyright Act of 1957 is the oldest piece of intellectual property legislation still in effect in the country of India prior to 2012, the Act was amended five times, once in each of the years. Meetings with national and international organizations were held in 1983, 1984, 1992, 1994, and 1999 requirements.⁵⁸ As new technologies emerge, there is a greater need for governmental action. At Towards the close of the twentieth century, advances in information technology necessitated changes in government policy. Copyright law in its traditional form The legislature wants to replace the 1957 Copyright Act with a new one. The Copyright (Amendment) Bill was introduced in 2010. Surprisingly, one of the objectives of the Copyright is reserved (Amendment) The purpose of Bill 2010 is to solve the issues of the digital world.As well as the internet⁵⁹ The Copyright (Amendment) Bill, 2010, on the other hand, aimed to extend the protection of copyright. The protection of copyright in the digital world, as well as anti-piracy efforts, are essential. The most important consideration The Copyright Amendment Act of 2012 made changes to the law are important in terms of scope because they address the difficulties provided by the Internet and other technologies. Move beyond the boundaries of these challenges.⁶⁰ In general, copyright laws differ

⁵⁷ AKHIL PRADAS ET AL., COPYRIGHT LAW DESK BOOK KNOWLEDGE, ACCESS & DEVELOPMENT 17 (Universal Law Publishing Co.Pvt.Ltd. 2009).

⁵⁸ P. NARAYAN, LAW OF COPYRIGHT AND INDUSTRIAL DESIGNS 6 (Eastern Law House 2007).

⁵⁹ APARNA VISWANATHAN, CYBER LAW INDIAN AND INTERNATIONAL PERSPECTIVES ON KEY TOPICS INCLUDING AT A SECURITY, E-COMMERCE, CLOUD COMPUTING AND CYBER CRIMES 240 (Lexis Nexis Butterworths Wadhwa 2012).

⁶⁰ *Id.*

from state to state; copyrights granted in one state may not be used in another. The laws of a person's native nation apply to users all around the world, according to treaties like the WIPO, Bern, and others. TRIPs, or the Universal Copyright Convention. In relation to these countries, they changed their policies. Copyright Acts have been updated to reflect changing conditions as a result of technological advancements. Computer Copyright laws safeguard the majority of software items and packages.⁶¹

COPYRIGHT REGIME AND COPYRIGHT PROTECTION TO COMPUTER PROGRAM AND IT'S SCOPE

Copyright, in most cases, refers to the right to duplicate the work in which copyright exists. Wherever the original work is created, it obtains copyright and is protected under copyright legislation. In the case of *Carey v. Kearsley*,⁶²Original expression is protected by copyright. Copyright protects "authorship works" that are fixed in any tangible medium of expression and can be perceived, reproduced, or otherwise communicated, either directly or via the use of a machine or mechanism.⁶³As soon as "work is created," copyright arises. It excludes any idea, procedure, system, method of operation, concept, principle, or finding that is not in a permanent tangible form. Section 14 of the Copyright Act of 1957 defines "copyright" as the exclusive right, arising from and subject to the provisions of the Act, to do or allow others to do any of the following acts in the case of a literary, dramatic, or musical work:

- a) To make a physical copy of the work.
- b) To have the work published
- c) To perform the piece in front of an audience.
- d) To create, reproduce, perform, or translate the work in any way.
- e) To disseminate the work to the public

⁶¹ *Id.*

⁶² *Carey v. Kearsley* Esp 168 ER 678 (KB 1804).

⁶³ VAKUL SHARMA, INFORMATION TECHNOLOGY LAW AND PRACTICE 465 (Universal Law Publishing Co 2011).

- f) To alter the work in any way.
- g) To carry out any of the activities listed in sub-clauses (1) to (6)⁶⁴ in regard to a translation or adaptation of the work.

The term "cyber" has come to mean a virtual area or memory, as well as the medium through which some processes, such as the way thoughts function in human memory, take place. New concepts such as computer programmes, computer databases, computer layouts, and various web works have emerged as a result of the advancement of new technology. Understanding copyright in relation to computer programs/software, databases, and diverse works in cyberspace are critical challenges in intellectual property law in the digital era. Copyright protection applies to computer programmes, source code, object code, structure, sequence, organisation, screen displays, general flow charts, and menu structure.⁶⁵ It would be literal copying if the source code or object code were closely copied. In the case of *Ibcos computers v. Barclays Mercantile Highland Finance Ltd.*⁶⁶, it was determined that disc to disc copying, along with common faults, constituted literal copying. Furthermore, copyright was held to exist not just in individual programmes but also in the entire suite of applications as a compilation. The protection of digital copyright is possible under Indian copyright law. Computer programmes have been given literary status.⁶⁷ The copyright Act of 1957 provides legal protection to "literary works" in the form of copyright protection. "Computer programmes" are included in its scope of literary work. Computer and Computer Program are defined in the Copyright Act of 1957 as any electronic or comparable device with information processing capability.⁶⁸ The word "computer software" often refers to a set of instructions that allows a computer to do a task. A computer programme is described as "a

⁶⁴ The Copyright Act, 1957, § 14, NO. 14, Act of Parliament, 1957 (India).

⁶⁵ JOHN S. MCKEOWN, FOX CANADIAN LAW OF COPYRIGHT AND INDUSTRIAL DESIGN 708 (Carswell Thompson Professional Publishing 2003).

⁶⁶ Mishita, Jethi, *Dealing 'Fairly' with Software in India*, 16, 313-320 (2011), <http://nopr.niscair.res.in/bitstream/123456789/12445/1/IJPR%2016%284%29%20313-320.pdf>, (Visited on 24/8/2021).

⁶⁷ The Copyright Act , 1957, § 2, No. 14, Act of Parliament , 1957 (India).

⁶⁸ The Copyright Act, 1957, § 2(ffb) No. 14, Act of Parliament , 1957 (India).

series of instructions represented in words, codes, schemes, or any other form, including a machine readable medium, capable of commanding a computer to do a certain task or accomplish a specific result."⁶⁹ Computer software, like many other terms in the computer industry, is difficult to define precisely, but it is generally understood to include computer programmes, databases, preparatory material, and associated documentation in printed or electronic form, such as manuals for programme users and programme maintainers. It can also contain any other digitally saved works, as well as interfaces, programming languages, and software tools for developing software systems. The computer software could be made up of three parts:

- ❖ Computer software
- ❖ A description of the programme and
- ❖ Supplementary materials

A contemporary attempt is being made to include web pages within the scope of the definition of software.⁷⁰ Computers are incapable of comprehending common language. They can only interpret "machine language" or "machine code," which are instructions made up of a series of 0s and 1s. A computer programme used to be written in machine code or by punching a punch card in the old days. The computer received requisite information from the punched or unpunched slot. This was a long and tedious procedure. Although understandable to the computer, such a programme was virtually unreadable to anyone other than a similarly competent coder.⁷¹ The source code of a computer programme, as described, is a literary work under the Copyright Act, and it is protected as a copyright if it is published or revealed. A source code, on the other hand, is usually kept as a trade secret and protected as such.⁷² Computer programmes, tables, and compilations, including computer databases,⁷³ are included in the Act's definition of "literary work." A "literary work" is

⁶⁹ The Copyright Act, 1957, § 2(ffc) No.14, Act of parliament, 1957 (India).

⁷⁰ JOHN FOLEY, THE SHAREWARE ALTERNATIVE 32 (Information week 1995).

⁷¹ 4 JUSTICE YATINDRA SINGH, OPEN SOURCE SOFTWARE AND INTELLECTUAL PROPERTY RIGHTS 29 (Eastern Book Company 2004).

⁷² JUSTICE YATINDRA SINGH, CYBER LAWS 47 (Universal Law Publishing Co 2012).

⁷³ The Copyright Act 1957, § 2, No. 14, Act of Parliament, 1957 (India).

a computer programme stored on a CD, floppy disc, or any other storage media. As a result, the right to use it is protected as intellectual property under the Act. Computer programmes are protected by the copyright act, but individual files or elements of a programme are not, just as a novel is protected as a literary work rather than each individual chapter. If key requirements such as originality, expression, and fixing of the work are met, copyright law protects computer programmes.⁷⁴

The following levels can be used to discuss the breadth of computer programme protection:

1. Source and object code are both protected:

Both source code and object code are protected by copyright, according to Article 10.1 of the TRIPS Agreement.

2. Levels of User Interface Similarity:

In *John Richardson Computers Ltd v. Flanders*⁷⁵, the defendant created a competitive programme for his current employee that was comparable in many ways to the one he had created for the plaintiff, his former employer. Although the two programmes were written in different languages and hence not literally equivalent, the Court found that the UK Copyright law included both literal and non-literal aspects, and that their user interface levels were similar.

3. Characteristics of the Program's Structure and Design:

Literal duplication of the software, in the form of a comparable source code, structures, and module layouts, was discovered in the case of *Ibcos Computers Ltd v. Barclays Mercantile Highland Finance Ltd*⁷⁶ Furthermore, copyright was shown to be comparable and volatile in non-literal components of software structure and design features. This conclusion was based on the reality that literary works like books contain both literal and non-literal elements, such as the plot.

4. Commands used in the programme are not protected by copyright:

The software at dispute in *Navitaire Inc v. Easyjet Airline C.*⁷⁷ had the same "look and feel" as another software but was functionally different. It was claimed that the command names used in

⁷⁴ *Id.*

⁷⁵ *John Richardson Computers Ltd v. Flanders*, (1993) FSR 497.

⁷⁶ *Ibcos Computer Ltd v. Barclays Mercantile Highland* (1994) FSR 275.

⁷⁷ *Navitaire Inc v. Easyjet Airline c* (2006) RPC (3)111.

the computer programme were identical to those used in other software, and that this infringed on the other party's copyright in their software. The Court determined that command names are ad hoc programming language and do not have the literary quality of a work of fiction. Recital 14⁷⁸ of the former EU Directive on the Legal Protection of Computer Programs, 1991 explicitly exempted programming languages from copyright protection. As a result, the court decided that the command names did not fall under the copyright umbrella.

5. Only non-literary elements with an element of originality will be protected:

World Programming Ltd v. SAS Institute Inc.,⁷⁹With reference to Article 1(2) of an EU Directive on the Legal Protection of Computer Programs, the Court of Justice of the European Union held that while source code and object code are protected as literary works under the Berne Convention, the program's functionality, programming language, graphic user interface, or the format of the data files it uses are only protected if they are the result of the author's original creation.

APPLICABILITY OF COPYRIGHT LAW OF INDIA IN COMPUTER PROGRAMS

The Copyright Act was amended several times in 1994 to make it more applicable to computer applications. These revisions were made in conjunction with the 1994 approval of the TRIPS Agreement, which extended the Bern Convention's application to computer programmes and databases. The following are the important provisions included in relation to computer programmes:

1. Computer programmes and databases are regarded as "literary works":

The term "literary work" is defined as "work that is written in a literary style." The Copyright Act was revised to include computer programmes and databases in Section 2(0). The Copyright Act's requirements for literary works apply to computer programmes and databases, with the exception of the provisions expressly for computer programmes and databases, which are outlined below. On the basis of Section 14 (a) read with Section 2(0) of the Copyright Act, a copyright exists in computer programmes and databases. The copyright on a computer programme and database lasts

⁷⁸ Recital 14. Directive 91/250EEC.

⁷⁹ *World Programming Ltd v. SAS Institute Inc.*, (2012) 3 CMLR 4.

for the same amount of time as a "literary work," i.e., 60 years from the calendar year in which the creator dies.⁸⁰The definitions of the phrases "computer," "computer programmes," and "computer databases" differ from those in the Information Technology Act. In 1994, the Copyright Act was revised to include these provisions, long before the IT Act was established in 2000. Section 2(ffb) of the Copyright Act defines a "computer" as any electronic or comparable device with information processing capability. A set of instructions represented in words, codes, schemes, or any other form, including a machine-readable media capable of causing a computer to do a certain task or accomplish a particular result, has been defined as a "computer programme" under Section 2 (ffc) of the Copyright Act. This definition includes software that is the source code or object code, in the form of computer output such as a printout or CD, or stored as data on a computer system, and it will therefore include software that is the source code or object code, in the form of computer output such as a printout or CD, or stored as data on a computer system, and so on.⁸¹

2. A computer program's creator:

An author in respect to any literary, dramatic, musical, or aesthetic work that is computer-generated is defined as the person who causes the work to be made under Section 2(d) of the Copyright Act. As a result, the author of a computer programme that qualifies as a "literary work" is the person who develops it or causes it to be developed. Thus, in the example of an employer who directs his employees to build a computer programme, the author is the employer. In the case of *Microsoft Corporation v. Mr. Kiran Kumar and Anr.*⁸², for example, Under the Indian Copyright Act and the US Copyright Law, US Code Title 17, Section 2(1)(b), when the copyright in a work created by an employee belongs to the employer under the "Work made for Hire" doctrine, the court accepted the plaintiffs' allegations that they were the authors of the works. The plaintiff's work, i.e., the computer programme and the User Instructions and Manuals, were protected under Section 40 of the Copyright Act, 1957, read with the International Copyright Order, 1999, because both India and the United States are signatories to the Universal Copyright Convention and the Berne Convention.

⁸⁰ The Copyright Act 1957, § 22, No. 14, Act of Parliament, 1957 (India).

⁸¹ ANIRUDH RASTOGI, CYBER LAW LAW OF INFORMATION TECHNOLOGY AND INTERNET 299 (Shree Maitrey Printech Pvt.Ltd. 2014).

⁸² Microsoft Corporation v. Mr Kiran Kumar and Anr, MIPR 2007 (3)214.

3. Author's Exclusive Rights:

The author of a computer programme has the same exclusive rights as the creator of a literary work under Section 14(b) of the Copyright Act⁸³, specifically, the right to produce, publish, perform, make a film, translate, or adapt the computer programme. In addition to these rights, the author of a computer programme has the exclusive right to sell or give any copy of the computer programme on commercial rental/offer for sale/offer for commercial renting.

DATABASE AND COPYRIGHT

A database is a collection of data organised in a systematic fashion to make information retrieval simple and efficient. It is usually in the form of an electronic document. A database is distinct from a database system (also known as a database management system), which is a piece of software or a computer programme that manages the database. When examining what is secured in a database, it's vital to keep this distinction in mind. A computer database is a text, picture, audio, or video presentation of data, knowledge, facts, concepts, or directions that is being created or has been prepared by a computer, computer system, or computer network in a formalised manner.⁸⁴ A database is a collection of records, each of which contains one or more fields (i.e., data) concerning some entity (i.e., object), such as a person, organisation, city, product, work of art, recipe, chemical, or DNA sequence. For example, the fields in a database on people who work for a given company would include each worker's name, employee identification number, address, phone number, start date of employment, position, and salary.⁸⁵ As previously stated, a database is a collection of data, works, information, or other independent material organised in a systematic or methodical manner following some basic principle of compilation; databases, even if they are compilations of non-original works, should be given copyright protection because they are the result of the author's skill and labour in creating the work.⁸⁶ A copyright should be granted to a

⁸³ The Copyright Act, 1957, § 14, No. 14, Act of Parliament, 1957 (India).

⁸⁴ Alok Kumar Yadav, *Copy Right in Digital Era*, 2-6, (2014), http://www.rmlnlu.ac.in/webj/alok_kumar_yadav.pdf.

⁸⁵ *Id.*

⁸⁶ JAIN, PANKAJ & RAI, PANDEY SANGEET, *COPYRIGHT & TRADEMARK LAWS RELATING TO COMPUTERS* 45 (Eastern Book Company 2005).

database of articles on "Indian Intellectual Property Laws" because it is a work that is the result of the creator's labour, skill, and capital, as well as judgement, in selecting and arranging the articles. As a result, many governments have treated databases as literary works, granting them copyright protection as long as they are original.⁸⁷ "'Literary work' includes computer programmes, tables, and compilations, including computer databases," according to Section 2(o) of the Copyright Act of 1957. Databases have been recognised as literary works in India. *Telstra Corporation Ltd v Desktop Marketing Systems Pty Ltd*⁸⁸ clarified that only a little amount of innovation and originality is required for protection in Australia. Data bases can be protected as literary works under the Copyright Act. A literary work is defined as "a table, or compilation, expressed in words, figures, or symbols" for the purposes of the Copyright Act. The White and Yellow Pages produced by Telstra, as well as several unpublished Telstra header publications, were also considered in this case.

The Indian Copyright Act, 1957, covers "Databases" as "literary works" under Section 14 (1) (a), which states that "Copyright shall exist throughout India in original literary, dramatic, musical, and artistic works." According to Section 63B of the Indian Copyright Act, anyone who knowingly uses an unauthorised copy of a computer programme on a computer will be sentenced to a minimum of six months and a maximum of three years in prison.⁸⁹ "Data" is defined as a formalised representation of information, knowledge, facts, concepts, or instructions that is being ready or has been equipped in an institutionalised manner and is aimed to be handled, is being processed, or has been processed in a computer, computer system, or computer network, and may be in any form, according to Section 2(o) of the Information Technology Act of 2000. (including computer printouts). The term computer Data Base was defined for the first time in the Indian Legal System in Section 43 explanation (ii) of the Information Technology Act, 2000 as a representation of information, knowledge, facts, concepts, or instructions in text, image, audio, or video data that is being prepared or has been prepared in a formalised manner or has been produced

⁸⁷ A.M.Kaplan and M. Haenlein, *Users of the World Unite The Challenges and Opportunities of Social Media* BUS. HORIZ., 59-61 (2011).

⁸⁸ *Telstra Corporation Ltd v. Desktop Marketing System Pt. Ltd.* (2001) FCA 612.

⁸⁹ The Copyright Act ,1957, § 14(1) (a), No. 14, Act of Parliament, 1957 (India).

by a computer, computer system, or com. Section 43 of the Information Technology Act, 2000 provides for compensation to the aggrieved party of up to One Crore of Rupees from a person who secures, access to the system or down-loads data or down-loads, copies or extracts any data or data base or information from the said computer without the permission of the owner or the person in charge of the computer, computer system, or computer network.

The Act's Section 43 covers a wide range of offences, including cracking computer codes, computer trespass, digital copying, invasion of privacy, data theft, and so on. Anyone who alters or destroys any information residing in a computer resource, diminishes its importance or functionality, or affects it harmfully by any means, with the intention to cause or understanding that he is prone to causing wrongful or loss or damage to the public or any person, is subject to criminal penalties under Section 66 of the Act; the term commonly used for such crimes is "hacking."⁹⁰ Every web page accessible or published on the World Wide Web is to be considered a literary "copyrightable" work in the digital world. It safeguards all written text materials, graphic images, designs, drawings, video files, news stories, novels, screenplays, graphics, pictures, Usenet messages, the unique underlying design of a web page and its contents, including links, original texts, audio, video, html, urml, and unique markup language sequences, a list of websites compiled by an individual or organisation, as well as e-mails and other electronic communications.⁹¹ As a result, everything on the Internet is protected by copyright law. One can meet and chat to new people in cyberspace, read, publish, research, listen to music, watch videos, look at art, buy and sell items, access government papers, send e-mail, download software, and get technical support. As more information is posted and downloaded, and as more individuals join the pioneers of this brave new world, cyberspace is a living organism that is continually changing. Infringement of these rights, such as linking and framing, uploading of copyright content, and downloading of copyright material,⁹² is also frequent these days on the internet.

⁹⁰ Alok Kumar Yadav, *Copy Right in Digital Era*, 2-6, (2014),http://www.rmlnlu.ac.in/webj/alok_kumar_yadav.pdf.

⁹¹ DR. S.C.ROY, *INTELLECTUAL PROPERTY RIGHTS A PRISMATIC VIEW* 45 (Radha Publications 2014).

⁹² MEENA AMAR , *LECTURES ON CYBER LAWS*, 71 (Asia Law House 2011).

CHAPTER :3

COPYRIGHT ISSUES IN CYBERSPACE

Digital information can be operated fastly and easily all across the world, replicated without error for preservation, stored compactly, and searched almost instantly. Networks, digital libraries, electronic publication, software developments, satellite communication, wireless technology, and other emerging technologies are posing serious challenges to copyright regulations. Copyright is allowed for expressions rather than ideas, according to the Copyright Act of 1957, as long as the expression is "original." "Literary, dramatic, artistic, sound recording, and cinematograph films" are examples of copyrighted works. The owners of copyright are granted monopoly rights such as reproduction, distribution, public communication, public performance, translation, adaptation, and inclusion of literary and other works in sound recordings and cinematograph films. The owner has the right to seek remedies under the Copyright Act of 1957 to enforce his rights. With the advancement of information, new forms of creative expression in the creative arts have emerged, all of which have been subjected to copyright protection. Copyright work protection in the digital environment always brings fresh challenges to the fundamental foundations of copyright law. One of them is the infringement of copy rights through the Internet. Law is a reaction to a problem, which might be social, economic, or technological in nature. This broad rule applies to copyright law as well.⁹³ Like patent protection, copyright protection is based on the premise that "the public benefits from authors' creative activity, and that the copyright monopoly is an essential prerequisite for such creative activities."⁹⁴ Many flaws in the Indian Copyright Act remain unresolved, according to the findings. Artistic and literary creation and re-creation are vastly enhanced by the Internet.

The Internet is a perfect medium for artists and authors to promote their work because of its ease of transmission from creator to viewer, and then from viewer to viewer. At the same time, technology allows any of these viewers to rapidly and easily edit, alter, distort, or disseminate an

⁹³ Subhasis Saha, *Challenges to Copyright Work in Cyberspace*, 13 J. INTELL. PROP. REV., 35 (2012).

⁹⁴ SHERMAN, ET AL, *THE MAKING OF MODERN INTELLECTUAL PROPERTY LAW* 15 (Cambridge University Press 1999).

original work without the permission of the author.⁹⁵ The internet and digital technology have created what has been dubbed the "digital problem" in copyright law. Digital technology allows users to generate an endless number of flawless digital copies of music, books, or videos, and to distribute those digital creations throughout the world at the speed of light via the internet. The issue of copyright on the internet has taken on a new dimension as a result of digitalization. It enables high-quality copying to be done rapidly, cheaply, and easily, and then sent to potentially millions of individuals in a matter of seconds.⁹⁶ Copyright should be extended "to every nook where consumers draw value from literary and artistic works," according to Paul Goldstein. To offer financial incentives for both development and dissemination, copyright was required. Prior to the internet, the rights of authors, publishers, and the general public were generally aligned because of one key fact: providing public access to content was expensive, regardless of whether content creators required financial incentives to create or content distributors required financial incentives to make the necessary investments to distribute those works to the general public. The interests of artists and distributors were often grouped together under copyright law due to the expenses of copying and distribution. However, the issue here is what would happen if works are openly and unlawfully replicated and circulated over cyberspace. Unauthorized peer-to-peer sharing, as well as unauthorised hearings via You Tube and other social networking sites, are new trends in the digital world that are causing conundrums. In cyberspace, this reality emphasises the importance of both copyright and moral rights. Every user can be a net publisher, and because the cyber world is not constrained by geographical limits, data editing is also relatively simple. As a result, "day-to-day" online conduct may be construed as a real-world infringement.⁹⁷ In the digital era, the most notable Copyright issues can be divided into three categories:

- a) Concerns about a whole new type of employment, notably computer programmes works in databases and multimedia;

⁹⁵ Palmer Tom G, *Are Patents and Copyrights Morally Justified? The Philosophy of Property Rights and Ideal Objects* HARV. J.L. & PUB. POL'Y., 817-865 (1990).

⁹⁶ Netanel Neil W, *Copyright and a Democratic Civil Society*, YALE L.J. 283-287 (1996).

⁹⁷ PRABUDDHA GANGULI, *INTELLECTUAL PROPERTY RIGHTS-UNLEASHING THE KNOWLEDGE ECONOMY* 53 (Tata McGraw Hill 2001).

- b) Issues relating to the public reproduction of a work via digital media; and
- c) Issues connected to copyright management and administration in the digital world

In the case of *Religious Technology Centre v. Netcom Online Communication Services Inc.*,⁹⁸ it was correctly stated. Unlike in a bookstore, piracy is now more of a silent and private conduct thanks to the Internet. It has become increasingly difficult to prevent such infringements now that the Internet has reached PCs and even mobile phones. The authors of online copyrighted materials face numerous challenges. The policing of the Internet is at the top of the list. According to the Copyright Act, infringement occurs when someone uses another's copyrighted work without permission;

- (a) Allows the illegal use of another's copyrighted work with knowledge;
- (b) Makes a profit from an activity that involves the use of another's property. work that is protected by a copyright; and
- (c) Makes use of any of the copyright rights that are only available to the copyright owner.⁹⁹

Thus, a copy right is only infringed when someone else does any of the numerous activities, such as producing the work in any tangible form, including storing it in any medium via electronic means, which is the copyright owner's exclusive right. It is an infringement to digitise a work without the authorization of the copyright owner. The internet is a global system for the transmission and reproduction of information that opens up previously unimagined opportunities for copyright infringement and poses numerous difficulties to copyright law.¹⁰⁰ Copyright infringement has taken on new forms in cyberspace as a result of information technology The following analysis discusses copyright infringement in the areas of:-

1. Catching and Proxy Catching
2. Linking and Hyperlinking
3. Inline linking
4. Framing

⁹⁸ *Technology Centre v. Netcom Online Communication Service Inc* 907, F.Supp.1361 (1995).

⁹⁹ The Copyright Act, 1957, § 51, No. 14, 1957 (India).

¹⁰⁰ Jeremy Waldron, *From Authors to Copiers: Individual Rights and Social Values in Intellectual Property* KENT L. REV.,841-887 (1993).

5. Downloading of copyright material
6. Uploading of copyright material
7. RAM copying
8. Digital formal licenses
9. Meta search

1. Caching and Proxy Caching

A cache is a computer (usually a server) that stores copies of information (for example, the most popular Web sites) so that users don't have to go back to the original server. To put it another way, caching is the process of saving copies of content from an original source site for subsequent consumption. This is saved at a location that is closer to the user geographically. The goal of caching is to improve data access while reducing network congestion. The local cache is stored in the RAM or hard disc of the user, whereas the proxy cache is stored on the server. Though the caching mechanism undoubtedly aids the computer's operation in the internet system, it also keeps an unauthorised copy of the work. In general, cached content can be saved in the following ways:

- a) At a more convenient location;
- b) Using a more powerful computer
- c) On a computer where the user's path to the computer is less clogged.

Proxy Caching occurs when a user's service provider saves a copy of the site in order to enable quick access to that page to one of his clients who needs to access it in the future. Infringing acts may occur when the author's work, the web site, is reproduced many times.¹⁰¹ Caching certainly entails duplicating a significant portion of a copyright work and, in order to prevent a charge of infringement, would appear to necessitate a licence from the copyright owner. Although helpful for users, caching is not required, and hence no licence can be inferred from the circumstances. The court emphasised the transformative use factor as a determinate of fair use by the Google and held that the Google's caching practises are of transformative nature in *field v. Google*¹⁰², with

¹⁰¹ Suman Kumar Kasturi, *Social Media: Key Issues and New Challenges-A Study of Nalgonda District*, 5 (1) Glob. Media. j., 1,3 (2014).

¹⁰² *Field v. Google* 412,F Supp 2d 1106, 2006.

respect to the fair use argument raised by the Google that the purpose served by the Google's cache is distinct from that of the original. It let people to access the document in the event that the original was unavailable. The cache "served many transformative natures," according to the court. It let people to access the document in the event that the original was unavailable. The cache "had several transformational and socially significant functions," according to the court. Caching, regardless of its legal status, makes it easier to copy entire websites, posing apparent copyright difficulties. As a result, infringing information may have been removed from the original site but not from the cache, leaving the website owner and/or the cache operator accountable for any infringement actions.

2. Linking and Hyperlinking

The Internet, which is a massive network of computers, allows users to access content such as text, graphics, audio, video, and other types of data stored on faraway computers. A supplemental information is discovered through linking. A link is merely a connection between the contents of two or more files, or between sections of a single file.¹⁰³ Tags are embedded commands that produce Hypertext links that lead to another website.¹⁰⁴ A link is a selected connection between two words, images, or information objects. Links are usually highlighted, underlined, or otherwise visible text or images that the user can select to initiate the delivery and viewing of another file. Linking is a requirement of the World Wide Web, because links are what make it a web in the first place. Links provide instant access to information that would otherwise take a long time and effort to locate There are two forms of linking:

(a) Surface linking: When a site's home page is linked, this is referred to as surface linking.

Linking on the surface

(b) Deep linking: When a link skips the main page and goes right to an internal page inside the connected site, it is known as deep linking.

¹⁰³ Giorgi Bagaturia and Marget Johnson, *The Impact of Social Media in Marketing Management J. Bus.*, 6 (2014).

¹⁰⁴ Sableman Mark, *Linking Law Revisited: Internet Linking Law*, 16, *BERKELEY J. INT'L L.*, 20 (2001).

A link is nothing more than a URL, or the Internet address of a website, and as such, it is not copyrightable, just like a physical address. However, this hyper linking technology could help with the circulation of creative work that belongs to someone else.

A hyperlink is a link between two pieces of hypertext (the HTML language used to create webpages, which is then transformed to readable English by browser software). As a result, HTTP (hypertext transfer protocol) allows one website to link to another without the owner of the linked website's knowledge or agreement. The hyperlink appears as an underlined or highlighted keyword or phrase on a page of information presented when exploring a website, and when clicked, it takes you to another document or website. What if, for example, such a link is¹⁰⁵

(i) deceptive (for example, by 'framing' someone else's content so that it appears on-screen as your own when it is actually from a hypertext linked site with no connection to your site);

(ii) defamatory; or

(iii) facilitates copying in circumstances where a licence permitting such copying cannot be implied from the copyright owner? A search engine, for example, may automatically deliver a link to a site that contains copyrighted content.

If a photograph is found on an external website, it can be linked into the local website and displayed as part of the current presentation. Unlike a hypertext link, which terminates with the local site immediately after connecting to the external site, the local site remains up to date when the inline picture is displayed. The URL remains unchanged, and the user may be unaware that the linked image originates from a source other than the linked site.¹⁰⁶ The mere act of linking to the photos constituted an infringement of the copyright holder's display right. In *Ticketmaster Corp. v. Microsoft Corp.*¹⁰⁷, the plaintiff, Ticketmaster Corporation, sued Microsoft for linking to deep within its site without permission rather than the home page, claiming, among other things, that Microsoft effectively diverted advertising revenue that would have otherwise gone to the plaintiff. Ticketmaster Corporation has also engaged into agreements with other companies in which those

¹⁰⁵ SIMON STOKES, *DIGITAL COPYRIGHT LAW AND PRACTICE* 13 (Hart Publishing 2009).

¹⁰⁶ *Id.*

¹⁰⁷ *Ticketmaster Corp v. Microsoft Corp* US District Court for the Central District of California, Civil Action Number 97-3055DPP.

companies agreed to pay Ticketmaster to link to their websites. Microsoft's free linking to the plaintiff's site could have lowered the value of those contractual relationships. Allowing such a free link harmed Ticketmaster's freedom in terms of site design, marketing activities, and partnerships with other websites. During the course of the court case, the parties reached an agreement in which Microsoft promised not to link to pages deep within the Ticketmaster website and instead direct users interested in purchasing tickets to the ticketing service's main page. *Shetland Times Ltd. v. Wills*¹⁰⁸ was a case in which the English courts explored this question. In this case, one of the two online news publications had supplied a link (known as a hyperlink) to the many pieces published in the other daily without the owner's permission. As a result, online newsreaders can now read stories on other websites simply by "clicking" on the mouse. Furthermore, the headlines and links created were exact copies of headlines from another website. The court decided that just "linking" did not constitute infringement. There is no legal barrier preventing site owners from allowing others to link to their materials, regardless of any copyright limitations. It will be a rare site developer that does not want to receive "visitor" whether the site is built for academic, business, or personal goals. There was a claim that things available on the internet are in the public domain since the creator of the work uploaded it to the Internet to make it freely available to anybody, without restriction. However, this reasoning cannot be considered true because in order to download or duplicate the material, one must first seek a licence (which must be in writing) from the owner of the copyrighted material. As a result, it can be concluded that unrestricted copying on the internet constitutes copyright infringement, as it involves the direct display of content from another website, as well as the unauthorised embedding of content from another website. Images and banners from other websites, for example, are integrated on the host site. The question of secondary liability may emerge if the link is provided to a website that contains copyright infringing materials. When Microsoft was sued by Ticketmaster for linking its Sidewalk Seattle site to the order form page on Ticketmaster's site, it was decided that Microsoft's linking should be removed on the grounds that it unfairly avoided advertising and marketing, amounted to dilution of trademark, and was false advertising. A website linking to another website would be a breach of the rights of distribution, reproduction, and exhibition.¹⁰⁹

¹⁰⁸ *Shetland Times Ltd v. Wills* (1997) F.S.R. 604.

¹⁰⁹ RODNEY RYDER, *INTELLECTUAL PROPERTY AND THE INTERNET* 13 (Lexis Nexis 2002).

3. Inline linking

In-linking, also known as "in-line linking," allows a Web page to call elements from other sites or servers in order to create a new Web page. Rather of duplicating the pieces to the composite Web page, they are linked in by "pulling in" graphic or image files from another site and displaying them on the composite Web page. As a result, the composite page would be a collection of links to other websites and servers. The page directs the browser to acquire the photos, graphics, and other content from the original sources while surfing the composite page.¹¹⁰

4. Framing

Web authors can divide pages into "frames" using web browsers. A frame is an independently configurable window on a website that allows visitors to see pages from another website. The right of public display or performance is likely to be breached in framing, where the web page is separated into many portions that employ HTML code to draw content from other sources. Similarly, it may suggest sponsorship, causing confusion, misunderstanding, or deception, as well as diluting the mark. Because a site may call a frame's contents from a separate place, a programmer can "frame" another's Web content behind his own navigation or ads. This allows him to sell banner advertising on his website utilising third-party creative material. One common application of frames is to have one frame with a selection menu and another frame with the space where the selected (linked to) files show.¹¹¹ Similar to inline linking, framing is another sort of dynamic connection. It enables a web designer to incorporate or pull in a full external site (or portions thereof) and surround it with custom frames. The external site appears to be a part of the local site, and the URL remains unchanged, as with inline.¹¹² *Shetland Times Ltd. v. Wills*¹¹³

¹¹⁰ Andreas M.Kaplan, and Michael Haenlein, *The Fairyland of Second Life: Virtual Social Worlds and How to Use Them* BUS. HORIZ., 565-566 (2009).

¹¹¹ Raffl,Celina, *The Web as Techno –Social System: The Emergence of Web 3.0.In Cybernetics and Systems*, 604-605 (2008), <http://www.fuchs.uti.at/wp-content/uploads/web3.pdf>.

¹¹² *Id.*

¹¹³ *Shetland Times Ltd v. Wills* (1997) F.S.R. 604.

is one of the first lawsuits in the United Kingdom concerning hypertext linking. The claimant owned and published the Shetland Times (the Times), as well as making online editions of the newspaper available. Under the moniker Shetland News, the second defendant supplied a news reporting service (the News). The managing director of the news was the first defendant. The defendants created a website and incorporated a number of headlines from past issues of the New York Times among the headlines on their front page. These headlines were exact replicas of the claimant's headlines; by clicking on one of these headlines, an Internet user could bypass the front page of the Times and obtain access to the relevant text in the Times.

The defendant in *LFG, LCC v. Zapata Corp*¹¹⁴ registered the domain name zapte.com in order to conduct business via the internet. Under the service mark Zap futures, the plaintiff provides financial services. Three hyperlinks on the defendant's website might lead users to other financial services websites, including plaintiff's and competitors. The plaintiff objected to the hyperlink on the grounds that it creates a false impression in the public's mind by associating him with his competitors. Total News Inc. ran a website that provided links to the websites of several news organisations, including the Washington Post, Time Cable News Network (CNN), Times Mirror, Dow Jones, and Reuters, according to *Washington Post Co. v. Total News Inc.*¹¹⁵ The websites of these news providers were presented in the Total News frame by clicking on the links. The 'Total News' logo, Total News URL, and adverts managed by Total News were all included in the frame. The plaintiffs were successful in their lawsuit against the defendant, alleging copyright infringement. The United States District Court for the Southern District of New York issued a settlement order in this matter, which said that "the defendants undertake to permanently halt the practise of framing plaintiff's websites." Plaintiffs agree that Defendants may link to any Plaintiff's website from the Totalnews.com website or any other website provided that:

- To link to plaintiffs' websites, defendants may only utilise hyperlinks consisting of plain English names of the linked sites that may be emphasised.

¹¹⁴ LFG, LCC v. Zapata Corp 78 FS. Supp. 2d.731, 733.

¹¹⁵ Washington Post Co. v. Total News Inc. No. 97 Civil 1190 (PKL).

- Defendants may not utilise any of plaintiff's proprietary logos or other distinguishing visuals, video or audio material on any website, as hyperlinks or in any other way, nor may defendants otherwise link in any reasonable manner most likely to:
 - (i) suggest any Plaintiff's affiliation, endorsement, or sponsorship;
 - (ii) produce perplexity, misunderstanding, or deception;
 - (iii) dilute the Plaintiffs' trademarks; or
 - (iv) break any other state or federal law;
- Each plaintiff's consent to defendants' linking is reversible on 15 business days' notice and at the plaintiff's sole discretion. Any other terms and conditions set out herein are unaffected by any plaintiff's revocation. If a plaintiff brings an action to enforce its rights under this subparagraph and the defendant refuses to stop linking after being given notice, it will be an affirmative defence that defendants conduct does not otherwise infringe or violate plaintiff's rights under any theory of intellectual property, unfair competition, or other law.

*Futuredontics Inc. v. Applied Anagramics Inc.*¹¹⁶ is a similar case. A dental service website, Applied Anagramics, Inc., framed the content of a competitor's site. Information about Applied Anagramic, as well as its trademark and links to all of its Web pages, were included in the frames. A district court concluded that the installation of the frame changed the appearance of the linked site, and that such changes could be considered infringement if made without permission. Framing raises a number of business concerns. To begin with, a frame may jeopardise the target site's revenue model by hiding or obscuring branding or advertising on the framed target page.¹¹⁷ Second, people may incorrectly believe that materials on the target site came from the linking site due to the existence of the linking site's mark.¹¹⁸ Third, framing may allow the linking site to “piggyback” on the content and other features provided by deep linking, potentially unjustly. Consider the following two newspapers' computer websites: times.com and post.com. Times.com could deep link from its site to the stories given by post.com instead of authoring its own.

¹¹⁶ *Futuredontics Inc. v. Applied Anagramics Inc.* 1997 46 USPQ 2D 2005, C.D. Calif. 1997.

¹¹⁷ RODNEY.D.RYDER, INTRODUCTION TO INTERNET LAW AND POLICY 128 (Wadhwa and Company 2007).

¹¹⁸ *Id.*

Times.com could keep its logo, advertising, and navigational buttons on the user's screen by employing frames, efficiently utilising the post.com content while retaining advertising and other revenue.¹¹⁹

5. Downloading of copyright material

The unauthorised reproduction and presentation of another person's copyrighted work on a nonremovable or removable storage medium is an infringement of the copyright owner's statutory exclusive rights. It refers to receiving data from a remote system or computer on a local system or computer, or initiating such a data transfer.²⁸ After the unauthorised copyright material has been posted and made public, Internet users will be able to download it from the internet.

Users are unquestionably accountable for downloading such material without the permission of the copyright owners.¹²¹ Copyright owners, on the other hand, are hesitant to take legal action against millions of individual infringers. The possibility of holding people who provide the equipment or facilities utilised for illegal activity responsible has received a lot of attention.¹²² *Napster Inc. v. A&M Record Inc.*¹²³ Napster made it easier to share MP3 files among its users. Through a mechanism known as "peer to peer" (P2P) file sharing, the company provided its file sharing software for free via its website. Users could search for and share MP3 music files stored on Napster's central server. These files might be downloaded via the Internet directly from users' hard drives. In the United States, A&M Records and other record labels filed a copyright infringement lawsuit against Napster, which was dismissed by the District Court and the Supreme Court. Leslie Kelly, a skilled photographer, has copyrighted many of his photos of the American West in *Kelly v. Arriba Soft Corp.*¹²⁴ Some of these photographs might be seen on Kelly's website or on websites with which Kelly had a licencing deal. Arriba Soft Corp., the defendant, ran an

¹¹⁹ *Id.*

²⁸ *Id.*

¹²¹ Halpern E Stevens, *Harmonizing The Convergence of Medium ,Expression, And Functionality: A Study of The Speech Interest In Computer Software*,14 Harv. J.L. & Tech.,66 (2000).

¹²² *Id.*

¹²³ *Napster Inc. v. A&M Record Inc.*239 F. 3d. 1004 (9th Cir. 2001).

¹²⁴ *West in Kelly v. Arriba Soft Corp.*280 F.3d 934 (9th Cir.2002).

Internet search engine that displayed its results as little pictures rather than the more traditional form of text. Arriba gathered its image database by stealing photographs from other websites. Within the framework of the Arriba web page, by clicking on one of the identical pictures. When Kelly found that his images were included in Arriba's search engine database, he filed a copyright infringement lawsuit against the company. Kelly had built a prima facie case of copyright infringement based on Arriba's illegal copying and showing of Kelly's works, but the District Court determined that this duplication and exhibition constituted a non-infringing "fair use" under section 107 of the Act. Kelly challenged the decision in court. "The development and use of the thumbnails in the search engine is a fair use," the Circuit Court concluded, "but the display of the bigger image is a violation of Kelly's exclusive right to publicly show his works." This use of Kelly's photographs does not imply that they are copied, but rather that they are improved directly from Kelly's website. As a result, copyright infringement based on the reproduction of copyrighted works is not possible. Instead, Kelly's exclusive right to "show the copyrighted work publicly" is infringed upon by this usage of her photos.¹²⁵

6. Uploading of copyright material

Because copyright content is easily and frequently sent over the Internet, many Internet users believe that just because something is available electronically entitles them to upload it to their own websites. It denotes the transmission of data from a local system to a distant system, such as a server or another client, with the goal of the remote system keeping a copy of the data sent, or the beginning of such a process. After the unauthorised copyright material has been posted and made public, Internet users will be able to download it from the internet. Users are unquestionably accountable for downloading such material without the permission of the copyright owners. Copyright owners, on the other hand, are hesitant to take legal action against millions of individual infringers. The possibility of holding people who provide the equipment or facilities utilised for illegal activity responsible has received a lot of attention. In *Himalaya Drug Company v. Sumit*¹²⁶ the court ordered the Italian infringer to stop copying a herbal database. On its website, the

¹²⁵ Felix Obertholzer Gee and Koleman Strumpf, *File sharing and Copyright*, CHI. J. INNO. POL'Y. ECO. 19- 23 (2010).

¹²⁶ Vijayakumar Shrikrushna Chowbe, *Intellectual Property and Its Protection in Cyberspace*, IUP J.INTELL. PROP. R., 1-2 (2010).

plaintiff, Himalaya Drug Company, one of India's largest Ayurvedic pharmaceutical enterprises, has a database of 209 herbs. The defendant, an Italian firm, duplicated the entire database and posted it on its website. Following a restraining order issued by the Delhi High Court, which was brought to the attention of the concerned Internet Service Provider (ISP) in the United States, the ISP removed the infringing content on its own initiative and provided full details of the infringer who had rented space on the ISP's website. The Digital Millennium Copyright Act, an American law that requires ISPs to delete infringing content on notice or face legal consequences, has pushed for the ISP action. At least four separate sources of infringement liability exist for online platforms. Unauthorized copies of other people's works may be included into the system by the person who created it. Those who operate and maintain the system may also make unauthorised copies. Subscribers can also use the system to upload unauthorised copies of works. In addition, infringing copies may be sent over the system.

7. RAM copying

Chips, discs, CD ROMs, optical discs, digital tapes, and other storage devices are all material things on which information is fixed in the context of digital technology. All data travelling through a computer is momentarily stored in the RAM. When the computer is turned down or restarted, this is wiped. It was held in *Apple Computer v. Formula International*¹²⁸ that copies stored in random access memory (RAM) were only temporary, and that running a computer programme from RAM does not result in an infringed copy. However, if the "copyright law" is applied to the aforementioned circumstance, the question becomes whether the temporary storing of (usually copyrighted) code in RAM constitutes "fixation" of the code. If a code temporarily placed in RAM is regarded "fixed," the RAM becomes a "copy" of the work, and making the RAM copy without the permission of the copyright owner constitutes prima facie infringement. This problem was addressed in *MAI System Corp.v. Peak Computer Inc.*¹²⁹ in which the copyright owner of operating system software sued a computer repair firm for infringement because the

¹²⁸ *Apple Computer v. Formula International* 594 F Supp, 617 (1984).

¹²⁹ *MAI System Corp v. Peak Computer Inc.* 991 F2d 511 (1993).

repair company turned on a computer running the operating system for the purpose of servicing the machine. The defendant was able to access the software programme as a result, which aided him in diagnosing the problem. The Ninth Circuit upheld the District Court's ruling that "loading copyrighted computer software into the memory of a central processor unit ("CPU") enables a copy to be made," which constituted infringement in the absence of authorization from the copyright owner. This choice will have far-reaching consequences. When you browse the web, copies of all web pages are stored in RAM. A user surfing can be held accountable for copyright violation if this ratio is used. It's worth noting that even temporary RAM storage counts as exhibition and reproduction in a tangible form, and will infringe on copyright if done without the owner's permission.

8. Digital formal licences

Digital copyright licences are another topic related to copyright law that is regularly brought up in the context of the Internet. Digital resources can be distributed in a variety of ways, including on-line distribution, CD-ROM distribution, floppy distribution, and so on. The use of copyrighted material in election media would be allowed in all digital formats if a blanket licence was granted. As a result, even the licencing culture in digital media needs to adapt.¹³⁰

9. Metasearch

Metasearch is a search technique that combines various different search systems (known as component search systems) to do simultaneous searches. A metasearch engine is a search engine which supports metasearch. Metasearch engines are technologies that assist users in locating relevant data. The metasearch engine sends an user input to different current search engines to do a basic meta search; after the search engine results are received by the metasearch engine, they are combined into a single ranked list and presented to the user.¹³¹ Meta search software allows a person to execute a single key word search of internet resources, allowing them to access multiple

¹³⁰ Kostyu ET AL., *Copyright infringement on the Internet: determining the liability of Internet service providers*, CATH. U. L. REV., 1237 (1999).

¹³¹ Weiyi Meng, *Metasearch Engines*, 1-4 (2008), https://www.cs.binghamton.edu/~meng/pub.d/EDBS_Metasearch.pdf.

online search engines.¹³² The ability to transfer user queries to other search engines, as well as the ability to recognise correct search results from the results pages returned from various search sources, are key challenges.

¹³² Bains ET AL., *Software, Sovereignty and the Internet: Circumventing Chaos through Trips*, COLUM. SCI. & TECH. L. REV., 2 (2003).

CHAPTER 4

COPYRIGHTS INFINGEMENT IN CYBERSPACE: REMEDIES AND CHALLENGES UNDER INDIAN LAW

Information Technology has transformed the commercial world and has moved to other industries such as trade, commerce, and entertainment. Every commercial firm nowadays relies on the Internet to stay afloat. Information Technology is unaffected by nationality, race, religion, or currency, and is exclusively responsible for trade globalisation, free trade, and commerce. The efficiency of copyright law as a way of regulating unlawful copying has been significantly questioned due to advancements in copying technology and lower costs of manufacturing copies of all kinds of copyright works. The creator of a work is granted a set of rights under copyright protection, such as the exclusive right to produce copies of the work, create derivative works depending on the copyright work, and publicly perform or show the work. In a networked context, all of these rights are relevant.¹³⁴ Regardless of whether the work is digital or not, the copyright rules that regulate these rights are the same.¹³⁵ However, human activity in cyberspace leads to infringement and crime, which necessitates a regulatory mechanism. Apart from traditional copyright infringement, hybrid infringements such as framing and deep linking, as well as the selling of pirated items, represent a significant challenge to law enforcement authorities on the internet.¹³⁶ The dynamic nature of the Internet, its simplicity, and nearly negligible marginal costs in generating and distributing copies can be linked to these infractions; also, numerous websites currently offer gratis installations, pirated software copies. Despite technological advancements and regulatory frameworks, addressing copyright infringements in cyberspace remains a big concern.¹³⁷ Because cyberspace leads to moral, civil, and criminal wrongdoings, the law should offer users with assurances about safe use and copyright protection from unauthorised users.

¹³⁴ STERLING, J.A.L., *WORLD COPYRIGHT LAW* 88 (Sweet & Maxwell 2003).

¹³⁵ EDWARDS L AND WAELE C., *LAW AND THE INTERNET :REGULATING CYBERSPACE* 44 (Hart Publishing 2000).

¹³⁶ Hutchison, Cameron J, *Interpretation & the Internet*, 28 J. COMPUTER. INFO.L., 23-144 (2010), <https://1library.net/document/q51mw5ry-interpretation-internet-j-marshall-j-computer-info-l.html>.

¹³⁷ Christie, A., *Reconceptualising Copyright in Digital Era*, EUR. INTELL. PROP. REV., 522-547 (1995).

However, new technology is not limited to computer systems; other technological advancements have been produced that must be considered in the context of copyright law. The Indian Copyright Act of 1957 protects computer software, but it makes no provision for copyright protection in cyberspace. The Information Technology Act of 2000 makes no mention of copyright protection. Because of the unique nature of information distribution through the Internet, the question of court jurisdiction in cases of copyright infringement in cyberspace is a topic of global dispute. Because of the infancy of internet, international legal initiatives to address copyright protection in cyberspace are still in the early stages. Cyberspace's potential and capabilities are always evolving, resulting in new uses, applications, and business models, yet due to this state of flux, legal responses are sluggish to arrive both domestically and internationally.¹³⁸

The advancement of Internet technology has aided the cultural and economic development of society. It has been used to infringe on a work's copyright with impunity due to its nature of function. Internet connectivity necessitates a minimum modem infrastructure as well as a suitable agreement with the access provider. Copyright refers to a legal right granted to the owner or licensee to prevent the copying of certain types of cultural, informational, and entertainment works.¹³⁹ A copyright work is spread by several fundamental technological instruments, and the copyright is violated even by these methods; for example, it is simple to generate digital or digitised copies of material such as text, images, music, and video. Electronic mail, electronic bulletin boards, and networks can all be used to send digital information around the world. Downloading, storing, displaying, and printing are all possible thanks to the ubiquity of personal computers and the lowering costs of primary and secondary mass storage media. Furthermore, without the knowledge of the legitimate owner, the downloaded papers can be forwarded to others. It is extremely vulnerable to manipulations, deletions, revisions, and adaptations, all of which leave no trace of the original. The development of numerous modes of communication and content sharing via the internet, such as torrents, peer to peer file sharing systems, and so on, has made it easy for infringers to disseminate pirated content and has effectively eliminated copyright holders' rights on the internet.

¹³⁸ Fleischmann E., *The Impact of Digital Technology on Copyright Law*, J. PAT. & TRADEMARK OFF., 56-73 (1988).

¹³⁹ W.R. CORNISH, *INTELLECTUAL PROPERTY 7* (Universal Law Publishing Co. Pvt.Ltd. 2001).

The following are some of the reasons that contribute to copyright infringement in cyberspace:¹⁴⁰

- (i) No deterioration in reproduction quality
- (ii) There are no significant reproduction or distribution marginal costs.
- (iii) The ability to operate anonymously, as well as uninformed people who are unaware of the current copyright legal framework.
- (iv) The absence of a national authority with the ability to govern copyright protection in cyberspace.
- (v) Jurisdictional issues in the event of a copyright violation in cyberspace.
- (vi) The difficulty of identifying the perpetrator among a huge number of online users.

Because the web site is accessible from anywhere in the world, it must be made clear in the user agreement posted on the web site that all copyrights (in content, underlying programmes, and styling) vest in the web site owner, and any unauthorised download, caching, browsing, uploading, may result in infringements of the exclusive statutory rights of the web site owner. If someone publishes, sells, or distributes software without the consent of the copyright owner or in violation of the terms of the licence provided, the owner can initiate a lawsuit for infringement. Without a legal prerequisite for registration, the owner retains ⁸copyright. As per the result, there is no need to display a copyright notice as confirmation of ownership of copyright, and the requirement has been removed. For copyright infringement, a person can seek damages, injunctions, account of profits, and other legal remedies.¹⁴²

The protection of copyright work in the digital realm raises certain fundamental copyright concerns in cyberspace, which are addressed by the following essential principles of Indian copyright law:

- (i) Is a hyperlink to copyrighted material an infringement of copyright?
- (ii) When search engines index a web page, do they produce unauthorised copies?
- (iii) Are Internet service providers liable for copyrighted material that customers post online?
- (iv) Is a message board or blog host liable for contributors' copyrighted content?
- (v) Nationality and jurisdiction, because what is legal in one country may be illegal in another.

¹⁴⁰ Jennifer M Driscoll, *It's a small world after all :Conflict of laws and copyright infringement on the information superhighway* U. PA. J. INT'L ECON. L., 648 (1999).

⁸ *Id.*

¹⁴² RODNEY .D.RYDER, INTRODUCTION TO INTERNET LAW POLICY 319 (Wadhwa & Company 2007).

Answering questions like whether courts can have jurisdiction over people who infringe on copyrights over the internet from another country; whether transient copies made by a user's computer count as "reproduction"; whether providing access to content already on the web counts as "communication to the public"; and so on are all part of resolving the above-mentioned issues. According to Indian law, reproduction must take place in a material form, but it also includes "keeping it in any medium via technological means." Case law has yet to define whether reproductions that take place in Internet communications are covered by the legislation's reproduction right. All of these questions are unanswered by the Indian Copyright Act's statutory provisions. The courts, on the other hand, have stepped in to try to resolve such difficulties and provide clarity.

Copyright Infringement in Cyberspace: (The Copyright Act, 1957)

On the Internet, intellectual property rights are particularly vulnerable to infringement. Piracy has grown quite easy, and copyright infringement of protected material have become severe legal issues. Illegal distribution of intellectual materials in the virtual world is a major concern for copyright owners, notably publishers of books, films, music, and software. As a result, law enforcement agencies are continuing to investigate and prosecute online copyright thieves. Anything that can be digitalized, or reduced to a series of zeros and transferred once, can be simply transmitted from one computer to another. Pirates have taken use of the computer's ability to steal large amounts of copyrighted material and illegally transfer it to others. Other industries are being impacted as technology allows diverse types of works to be easily digitalized and replicated. The Napster debate, for example, is now being harmed by computer pirates. anything the exclusive right to do that is the right of the owner as per the Act without a licence from the owner or registrar of copyrights or contravenes the conditions of a licence, or permits for profit a place to be used for communication of work to the public where such communication constitutes infringement of copyright.¹⁴³ In order to prove infringement, the defendant must show that the defendant copied the plaintiff's form of expression rather than his ideas. The form in which the work is expressed is the subject of a copyright law. Any person who reproduces, publishes, transmits to the public, or

¹⁴³ P.NARAYAN, INTELLECTUAL PROPERTY LAW 303 (Eastern Law House 1999).

performs the work in public, creates adaptations and translations of the work, or does any of the activities in connection to a major part of the work infringes on the copyright of another. The condition is that no copying, publication, or other action be taken without the permission or licence of the copyright owner. When you download materials from the internet without the creator's permission, you are committing infringement.¹⁴⁴ The provisions relating to copyright infringement are laid out in Section 51 of the Copyright Act. It does not specify whether the infringement took place in online or in the physical world. If we combine the language of Section 51 with Section 14 of the Copyright Act, 1957, we can see that reproducing a copyrighted work, releasing public copies of the work, or disseminating the work to the public would be considered a copyright infringement under the Act. However, there is no copying of any copyrighted property while linking or in-linking. The reproduction occurs when a person clicks on a link and views the linked page.¹⁴⁵

Liability of linking, hyper linking and caching under Copyright Act 1957

A website's hyperlink does not immediately force anyone to copy any significant content, but rather serves as a signpost to another site. In most cases, a surface link to a home page does not require permission. This viewpoint is founded on the idea that by getting online, everyone with a computer is granted an implied licence to visit the website. Placing a surface link isn't an infringement any more than the library catalogue is.¹⁴⁶ According to the Copyright Act of 1957, "reproducing any copyrighted work, issuing public copies of the work, or disseminating the work to the public" may constitute a copyright violation.¹⁴⁷ Under the Copyright Act, "making any work available for being seen, heard, or otherwise enjoyed by the public directly or 'by any means of display' or diffusion other than by issuing copies of such work" means "making any work available for being seen, heard, or otherwise enjoyed by the public regardless of whether any member

¹⁴⁴ GUPTA AND AGARWAL, *CYBER LAWS* 33 (Premier Publishing Co 2008).

¹⁴⁵ Muniz A.M. and T. O Guinn, *Brand Community* J. CONSUMER. RES., 412-432 (2001).

¹⁴⁶ The Copyright Act 1957, § 51, No. 14, Act of Parliament, 1957 (India).

¹⁴⁷ Lisa P. Ramsey, *Branding on Social Networks: Trademark Infringement by Impersonation of mark holder* BUFF. L. REV., 58 (2010).

actually sees, hears, or otherwise enjoys the work so made available.” Because the word "through any method of display" has been used to define communication, this definition of communication to the public could be extended to include the communication of contents of a website on the Internet. The reproduction, if it occurs at all, occurs at the end of the person who clicks on the link and views the associated page. Whether the connecting site claims to be disseminating copies of the work or informing the public about it. The linking site informs visitors about the art's presence and provides the address of the site where the piece can be found. It is up to the user to decide whether or not to use the link to access the work. The connecting site, on the other hand, is undoubtedly assisting in the diffusion of the content.¹⁴⁸ The individual who uses an inline link on his website is not causing any copyrighted content to be reproduced. This is because the link's originator never copies the stolen content; instead, he or she simply instructs a visitor's browser to obtain the image, which is subsequently included into the user's overall website. As a result, the only person who copies the protected image is the end user, who is unaware that his browser is downloading elements from many websites. As a result, if any reproduction occurs, it occurs at the end of the user who visits the connected page via the link. In addition, the inline link maker is neither issuing copies of the work, nor is he disseminating or distributing it to the general public. However, he can be regarded to be assisting in the conveyance and diffusion of such information. From another perspective, the Copyright Act's definition of "communication to the public" could be expanded to include the communication of website contents via the Internet, as the words "by any method of display" is used to define communication to the public.¹⁴⁹ Copyright infringement in the context of frame and in-linking, as well as the applicability of Section 14 (a) (vi) of the Copyright Act 1957, which confers adaptation rights only to the author of a copyrighted work. By in-linking, the linking site can use some of the linked site's settings, such as photographs, text, and video clips, to develop its own site. This is an infringement of the author's adaptation rights. Moral difficulties arise as a result of in-linking. also “*Independently of the author's copyright, and even after the assignment either wholly or partially of the said copyright, the author of a work shall have the right to claim the authorship of the work,*” Section 57 of the Copyright Act of 1957

¹⁴⁸ S.K. VERMA AND MITTAL, LEGAL DIMENSIONS OF CYBERSPACE, INDIAN LAW INSTITUTE 28 (New Delhi Indian Law Institute 2004).

¹⁴⁹ *Id.*

guarantees special rights to the author of any copyrighted work that is adversely affected by the practise of in linking.

Though the Act does not directly make in-linking illegal, any alteration or multiplication of a website's contents without the express authorization of the copyrighted material's owner constitutes an infringement in the eyes of Indian copyright law.¹⁵⁰ Furthermore, test and investigate the legality of framing. A person who frames the content of another website on his own website is not causing any direct duplication of the copyrighted information. The reason is that, the framer did not copied the pirated content; instead, it only instructs a visiting browser to get the content, which is subsequently included into the user's overall page. As a result, the only person who copies the content is the end user, who has no idea that his browser is downloading elements from many websites. Furthermore, because the user's browser is actually receiving the content straight from the owner's site, the framer is not directly issuing copies of the work, transmitting or distributing the work to the public. However, he can be regarded to be assisting in the conveyance and diffusion of such information. Furthermore, the Copyright Act only allows the owner of a copyrighted work to alter it. Because taking some elements from the multimedia setting and combining them with others could well fit into the definition of adaptation, the framing site could take some element from the framed site's multimedia settings and create its own, affecting the right to make a derivative work of the framed site. As a result, derivation and adaptation rights play a role in framing. The issue of moral rights is also brought up via framing. The copyright author might claim authorship of the work under the Copyright Act. In the case of framing, the user is unsure of the original source and may never learn who the author is. It's possible that the user will never know where various pieces of the site came from. The maker of a frame does not actually "copy" the contents of the framed page; instead, the user's browser is directed to summon content from another website and display it alongside the framing site's content. Because the framed web page's URL does not appear on the screen, a visitor visiting a framed site may not realise it is framed and mistakenly attribute the appropriated material to the home site owner. Because the user is never aware that he is accessing content from a separate site, this could jeopardise the author's right to be identified as such. The author of a copyrighted work has the right to inspect his work to ensure that it is not being distorted, mangled, or manipulated in any way. Content from multiple websites

¹⁵⁰ DR.S.C.ROY , INTELLECTUAL PROPERTY RIGHTS 48 (Radha Publications 2014).

could be merged into a single window, resulting in a work that is virtually fresh and distinct from the original, putting the work's right to integrity in jeopardy. In some cases, the mixture of numerous aspects could be referred to as alteration or even mutilation.¹⁵¹ When we consider the current scenario, it is possible that no rule has been enacted that prohibits linking, hyperlinking, or deep linking; yet, doing so would be impossible in practise because a comprehensive ban would stifle the Internet's growth. At the same time, the content of the owner should not be exploited in cyberspace. The Copyright Act of 1957 aims to prevent unlawful use of someone else's content through linking, hyperlinking, and deep linking.¹⁵² The Indian judiciary can fill the void by ruling on a case-by-case basis whether or not a connection was built with malicious intent in order to earn unfair enrichment from someone's content. If an inline link is found to be helping in the distribution or communication of false information, the courts will rule the linking to be illegal. Businesses and individuals should acquire permission from the appropriate person before linking within a website on the internet. And, if the creators of a website don't want it linked to a pornographic or shoddy site, they may include a prohibition in the site's "terms of usage" that reads something like "do not link to this site without our express authorization." Is it possible to be held accountable for linking to a website that contains illegal material? One possible solution is to include a disclaimer on the site stating that the links are provided for informational purposes only and do not imply endorsement or approval of the material on the linked sites.¹⁵³

¹⁵¹ Pesochinsky Z, *Almost Famous :Preventing Username-Squatting on Social Networking Websites* CARDOZO ARTS & ENT. L.J., 223-234 (2010).

¹⁵² *Id.*

¹⁵³ COPYRIGHT LAW AND THE INTERNET, http://improvehomelife.com/Copyright_Law_and_the_Internet_-18713.htm (last visited Sep. 5, 2021).

REMEDIES UNDER INDIAN LAW FOR THE VIOLATION OF COPYRIGHT IN CYBERSPACE:

a) THE COPYRIGHT ACT 1957

When copyright is violated, the owner of the copyright has the right to sue for damages, injunctions, profit of accounts, and delivery up of infringing goods. Copyright holders whose rights have been infringed can seek redress from Indian courts in a variety of ways. One of these measures is to order that all infringing copies, including master copies, be impounded and destroyed. Monetary recompense, which can include monetary damages, statutory damages, court costs, and attorney fees, is another way the courts provide remedy to copyright holders. In the event of a copyright infringement, the Copyright Act of 1957 offers three sorts of remedies:¹⁵⁴

- (i) Civil Remedies (sections 54-62),
- (ii) Criminal Remedies (sections 63, 63B), and
- (iii) Administrative Remedies

The following legal remedies are available to the aggrieved person under the Act:

- (i) Injunction
- (ii) Damages
- (iii) Account conversion
- (iv) Restraint and
- (v) Other as provided by law.

In terms of civil remedies, the copyright owner has a number of choices when it comes to copyright violations of computer programmes. He has the right to sue the individual who has infringed on his rights for damages. While the damages in infringement primarily relate to the amount of depreciation in the value of the copyright as a result of the infringement, the damages in conversion are directly related to the profits made by the person committing the infringement because the infringing copies are made by the property of the copyright owner by operation of law.¹⁵⁵ Civil

¹⁵⁴ The Copyright Act, 1957, § 54, 62, 63, 63(b), No. 14, Act of Parliament, 1957 (India).

¹⁵⁵ DR.B.L.WADEHRA, LAW RELATING TO INTELLECTUAL PROPERTY 263 (Universal law Publication 2011).

remedies are designed to compensate the copyright owner for the loss he has suffered as a result of the infringement. For knowing use of an infringing copy of a computer programme

Mens rea in case of Copyright Infringement on the Internet

Section 63 of the Copyright Act of 1957 stipulates criminal sanctions. Section 63B of the Copyright Act of 1957 states that anyone who knowingly uses an infringing copy of a computer programme on a computer faces the following penalties:

- (i) Imprisonment for a term of not less than seven days but not more than three years; and
- (ii) A fine of not less than Rs.50, 000 but not more than Rs.2 lakh.

The idea "Actus nonfacit reum nisi mensit rea" underpins the classical concept of crime. This implies that an act not constitute a crime unless it is performed with the intent to commit a crime. In the case of typical copyright violations, our legislation expressly says that the offender must commit the violation "knowingly." The adverb "knowingly" is an explicit manner of indicating that "mens rea" is required.¹⁵⁶ *Roper v. Taylor's Central Garage Ltd.*¹⁵⁷ Central According to Justice Devlin, the term "knowingly" just expresses what is typically implied; it does not specifically state what the presumption in favour of "mens rea" would imply. The Information Technology Act of 2000 does a good job of introducing both the necessity for "mens rea" and "strict responsibility." Because there is no indication of mens rea as a required part of the crime, the culpability under Sec.43 is a type of strict liability.¹⁵⁸ The clause against "tampering with computer source documents" in this Act, on the other hand, plainly employs the phrases "knowingly" and "deliberately" to make it an offence.¹⁵⁹ A person who posts copyrighted content on his website without first obtaining permission from the copyright owner has the necessary mens rea to commit infringement. In the same way, an ISP who knowingly hosts such a website has the

¹⁵⁶ SHAILAJA MENON, PROTECTION OF INTELLECTUAL PROPERTY IN CYBER SPACE 90 (Authors Press Global Network 2003).

¹⁵⁷ *Roper v. Taylor's Central Garage Ltd* (1951) 2 TLR 284.

¹⁵⁸ The Information Technology Act, 2000, § 43, No. 14, Act of Parliament, 2000 (India).

¹⁵⁹ *Id.*

mens rea to commit abetment. However, a user who, without knowing whether or not the content offered on the website is copyrighted, copies it to his hard disc for personal use does not have the required mens rea. The preceding discussion demonstrates that copyright infringements are the result of a particular mindset. Some are motivated by financial gain, while others are motivated by pure enjoyment. Criminal law should be utilised to penalise people who cause a significant economic loss to the owner, rather than minor infringements that are only employed for private or personal purposes. The defendants in *Microsoft Corporation v. Yogesh Popat*¹⁶⁰ had been assembling and selling computers since 1996, and were selling computers loaded with illegal versions of Microsoft software. Through a Microsoft employee, Microsoft placed a trap order with the defendants, and the defendants sold this employee a computer preloaded with Microsoft pirated software. Following that, Microsoft sued the defendants for a permanent injunction as well as damages. Because the defendants failed to appear, the court awarded damages of Rs. 2 crore and an injunction. If, on the other hand, the computer programme was not utilised for profit or in the course of trade or commerce, the court may, for good and sufficient reasons to be stated in the ruling, refuse to impose a sentence of imprisonment and instead impose a fine of up to Rs.50,000. As a result, the Act provides a highly harsh provision for copyright violations in the case of computer programmes. The instance in which copyright works can be duplicated or sold is one of the reasons why the criminal law is relatively strict in this area.¹⁶¹ The third type of remedy available to an aggrieved person is administrative. Under Section 53 of the Copyright Act, 1957, the Registrar of Copyrights may, upon application from the owner of the copyright in this regard and after appropriate inquiry, prohibit the importation of infringing copies of a work that would infringe copyright if made in India.¹⁶²

¹⁶⁰ Microsoft Cororation v. Yogesh Popat CS (OS) no. 103 of 2003.

¹⁶¹ R.K.CHAUBEY, CYBER CRIME AND CYBER LAW 712-714 (Kamal Law House, 2008).

¹⁶² SHARMA S.K, DIMENSIONS OF CYBER CRIME 217 (Anmol Publication Pvt.Ltd,2004).

b) THE COPYRIGHT (Amendment) ACT 2012

The offender or the Internet Service Provider might be held liable for copyright infringement on the Internet (ISP). Multiple parties are involved in the act of copyright infringement on the internet. The following parties are involved in copyright infringement on the internet:

(1) Internet service providers

(2) and individual ISPs (internet service providers) are businesses that give internet access to their clients or consumers. Although it appears that the individual who uploads the document should be held liable for infringement, there is a trend to hold the service provider responsible.

This is due to mostly two factors:¹⁶³

(1) It is difficult to locate an individual who actually uploads the copyrighted material due to the wider reach of cyberspace, whereas the service provider is an organisation with a fixed location,

(2) an individual will not be able to pay the infringement amount, but an organisation can pay to make good the infringement losses.¹⁶⁴

ISPs can be prosecuted for online copyright infringement under Section 51 (a) (ii) of the Copyright Act, 1957. According to this law, if someone “permits for profit” another person to use “any place” to communicate, that person may be held accountable for such act. As a result, under section 51, which defines when copyright is infringed, an intermediary may be held liable for copyright infringement of a work that has been infringed on its network unless the ISP/OSP can demonstrate that it was not aware or had no reasonable grounds to believe that the transition of the content over its network would be a copyright infringement.¹⁶⁵ The exceptions to copyright infringement are outlined in Section 52 of the Act. In its current form, the Act contains no particular provision in section 52 that would protect intermediary conduct from responsibility.¹⁶⁶ Fair use clauses were

¹⁶³ Kahandawaarchchi Thilini, *Liability of Internet Service Providers for Third Party Online Copyright Infringement: A Study of the US and the Indian Law*, 12 J. INTELL. PROP. R., 553-561 (2007).

¹⁶⁴ *Id.*

¹⁶⁵ APAMA VISWANATHAN, *CYBER LAW INDIAN & INTERNATIONAL PERSPECTIVES ON KEY TOPICS INCLUDING SECURITY, E-COMMERCE, CLOUD COMPUTING AND CYBER CRIMES* 249 (Lexis Nexis Butterworths Wadhwa 2012).

¹⁶⁶ *Id.*

included to the Copyright (Amendment) Act of 2012 to protect intermediaries from responsibility in certain particular scenarios and give them the chance to remove infringing information when it was brought to their attention. The Copyright Act (Amendment) Act, 2012, included additional provisions 52 (1) (b) and 52(1)(c) to address this gap: The following acts do not constitute a copyright infringement: a) transient or incidental storage of a work or performance purely in the technical process of electronic transmission or communication to the public; b) transient or incidental storage of a work or performance for the purpose of providing electronic links, access, or integration, where such links, access, or integration are required.

Explanation:

The proposed section 52 (1)(b) is aimed primarily at internet service providers (ISPs), while the proposed section 52 (1)(c) is aimed primarily at open source platforms (OSPs), and both are intended to shield ISPs/OSPs from copyright infringement in the case of User Generated Content uplinked without the ISP/facilitation/consent. OSP's¹⁶⁷ If the person in charge of the copy's storage receives a written complaint from the work's copyright owner alleging that such transient or incidental storage is an infringement, the person in charge of the copy's storage shall refrain from facilitating such access for twenty-one days or until he receives an order from the competent court prohibiting such access. The proposed section 52 (1) (b) and (c) have unknown practical ramifications. The fact that these proposed sections must be read and implemented in connection with Sections 79 and 81 of the Information Technology Act, 2000, would compound the lack of clarity in them. Section 52(1)(c) of the Copyright Amendment Act 2012, unlike Section 52(1)(b), is not a blanket exemption and allows the filing of a notice to the file-sharing service to remove infringing content. This is a healthy practise that can lead to a culture of self-regulation, and it is the only type of regulation that works when it comes to the internet. However, it appears that filtering and policing every web page carried by an ISP is essentially impossible. As a result, there is concern that such articles of legislation may become "dead letters" in the statute books.¹⁶⁸

¹⁶⁷ PROTECTING COPYRIGHT IN THE CYBERSPACE, <http://www.karnikaseth.com/protecting-copyright-in-the-cyberspace.html>, (last visited Sep. 5, 2021).

¹⁶⁸ SUDHEER, COPYRIGHT ON INTERNET: ISSUES AND CHALLENGES, INTELLECTUAL PROPERTY RIGHTS 72-73 (Serial Publication 2007).

Furthermore, in order to protect technological measures used by authors to protect their rights, the copyright Amendment Act of 2012 added Sections 65A and 65B, which states that anyone who circumvents such a technological method with the intent to infringe on rights is subject to a two-year prison sentence as well as a fine. There are some exceptions in this section, such as conducting a lawful inquiry, doing a security check with the owner's or operator's permission, conducting encryption research using a lawful copy, identifying or surveilling a user, and performing acts to defend national security.¹⁶⁹ Anyone who knowingly removes or alters any rights management information without authority, or disseminates, imports for dissemination, broadcasts, or communicates to the public without authoritative copies of any work or performance realising that electronic rights management information has been deleted or altered without authority, faces a sentence of imprisonment which may include a period of incarceration, according to Section 65B of the Act. In the event that rights management information has been tampered with, civil remedies are also available.¹⁷⁰ These provisions are extremely beneficial to the digital publishing business, as authors use DRMs to protect their copyrights from infringement by preventing reverse engineering or circumvention of technological measures. Encryption, electronic signatures, digital watermarking, pay-per-view systems, and electronic software delivery are some of the recognised strategies in use.¹⁷¹

c) **THE INFORMATION TECHNOLOGY ACT 2000**

The liability for genuine online copyright infringement does not exist. The Information Technology Act of 2000, Section 43 (a), is aimed to keep such people from infringing on other's intellectual property. According to this section, anyone who gains access to, or secures access to, a computer, computer system, or computer network, or downloads, copies, or extracts any data, database, or information from it, including information or data held or stored in any other medium, without the owner's or any other person in charge's permission, will be liable for damages in the

¹⁶⁹ The Copyright Amendment Act, 2012.

¹⁷⁰ *Id.*

¹⁷¹ *Id.*

amount not exceeding one crore rupees. However, the quantity of gain, as well as other factors, must be considered when determining compensation.¹⁷²

The adjudicating officer must consider the following factors when determining the amount of compensation:

- (i) The amount of gain or unfair advantage made as a result of the violation, where quantifiable;
- (ii) The amount of loss caused to any person as a result of the violation; and
- (iii) The repetitive nature of the violation.

As a result, if the copyright is violated with the aim of making a profit, the damages will be more than if the infringement is unintentional. The Information Technology Act of 2000 (hereafter IT Act.) is sufficiently broad to safeguard the rights of the owner of a web page (including a home page and a website). In fact, the Information Technology Act of 2000 provides more protection. The condition of a "data"¹⁷³ under the Information Technology Act is satisfied by material that has been uploaded to the internet. "A web page is a computer file encoded in Hyper Text Makeup Language (HTML) that comprises text, graphics, files, and sound files and is accessible through www," according to the lexical definition. It should be mentioned that a webpage is "a representation of information, knowledge, facts, concepts, or instructions" that is "processed" in a "computer system" or "computer network" and "stored" in the computer's memory." (Contrast this with the IT Act's definition of data.) As a result, the content of a web page can be recognised as data for the purposes of the IT Act, and all data protections can be extended to the content of a web page. According to Section 43 of the Act, anyone who downloads, copies, or extracts any data or database without the owner's consent or diminishes the value of a data is liable to pay penalties in the amount of one crore rupees. At the same time, under the IT Act of 2000, criminal responsibility is possible; the infringer is also responsible under sections 65 (tampering of computer source documents) and 66 (hacking).¹⁷⁴ Mens rea in the form of a "dishonest" or "fraudulent" intention on the side of the perpetrator must be proven under section 66 of the Act. In

¹⁷² NANDAN KAMATH, COMPUTERS INTERNET AND E-COMMERCE, 153 (Universal Law Publishing Co 2012).

¹⁷³ The Information Technology Act, 2000, § 2(o), No. 21, Act of Parliament, 2000, (India).

¹⁷⁴ The Information Technology Act, 2000, § 43,65,66, No. 21, Act of Parliament, 2000, (India).

such a situation, the penalties that can be imposed include imprisonment for up to three years, a fine of up to five lakh rupees, or both. Tampering with computer source materials is likewise prohibited under the Act. “*Whoever knowingly or intentionally conceals, destroys, or alters any computer source code required to be kept or maintained by law for the time being in force, or who intentionally or knowingly causes another to conceal, destroy, or alter any computer source code is required to be kept or maintained by law for the time being in force, shall be punished with imprisonment up to three years, or with a fine up to two lakh rupees, or with both,*” according to section 65. This provision thus grants source code if it is the code that is required to be maintained or kept by the law in effect at the time.¹⁷⁵ A web page's content is impliedly covered by the Act, and it can also be "extended to web page" and so protected.¹⁷⁶

d) THE INFORMATION TECHNOLOGY (Amendment) ACT, 2008

The IT Act of 2000, as amended in 2008, makes anybody who steals, conceals, destroys, or edits any computer source code used for a computer resource, or causes anyone else to steal, conceal, destroy, or alter any computer source code used for a computer resource, civilly liable under section 43 (j). Such a person can be deemed tortiously accountable for compensating the individual who has been harmed. The IT Act has an overriding effect over other laws, according to Section 81: “*The provisions of this Act shall have effect notwithstanding anything contradictory therewith contained in any other legislation for the time being in force.*” *Provided, however, that nothing in this Act prevents anyone from exercising any right given by the Copyright Act 1957 or the Patents Act 1970.*” The proviso to section 81, which was incorporated by the Information Technology (Amendment) Act, 2008, clarifies that the Information Technology Act does not limit any person's rights under the Copyright Act or the Patent Act. This demonstrates that where copyright is violated in cyberspace, the author is entitled to all of the rights provided by these Acts. The effect of this proviso on an intermediary's copyright liability was addressed in the case of *Super Cassettes Industries Ltd v. Myspace Incand Anr.*¹⁷⁷, in which the Delhi High Court held that the provisions

¹⁷⁵ *Id.*

¹⁷⁶ The Copyright Act, 1957, § 2(0), No. 14, Act of Parliament, 1957 (India).

¹⁷⁷ *Super Cassettes Industries Ltd v. Myspace Incand Anr.*, 2011 (48) PTC 49 (Del).

of section 79 of the Act had no impact on copyright infringements relating to internet wrongs where intermediaries are involved, and that the said provision, section 81 of the IT Act, had no impact. As a result, even if an intermediary was protected under Section 79 of the IT Act, the copyright owner might still sue the intermediary under the Copyright Act of 1957. Although the Information Technology Act of 2000 does not explicitly address copyright or any other IPR-related issues, it does strive to govern the distribution of intellectual material.

Internet service provider (ISP) and its liabilities

It is increasingly popular to have web sites (or Internet service providers that provide access to the Internet) that offer online bulletin boards or chat rooms for users to communicate and engage. They have a lot of possible liability risks. The concepts of "vicarious responsibility" and "contributory infringement" are recognised in copyright law. Under the Act, the infringing party's liability is "strict." This means that even if the user did not intend to infringe on the copyright or even understood the work copied was protected by copyright, a copyright violation arises. In order for a user to access data through the internet, numerous parties must be involved, including the database owner, ISPs, and, in certain cases, even the local telephone company. ISPs have an important role to play in the fight against cyber piracy. ISP liability for infringement is currently an unsettled intellectual property law problem. They currently only have the proverbial task of "hearing no evil, seeing no evil, and answering no evil." Neither the Berne Convention nor the majority of national regulations define who can be considered a copyright offender. The laws pertaining to ISPs are outlined in the Information Technology Act of 2000, which refers to an Internet Service Provider as a "network service provider." The Act specifically holds ISPs liable for copyright infringement, among other things. As a result, an ISP may be held accountable for any third-party data or information provided to him by a third party. He can avoid culpability if he can show that the crime or contravention was done outside his knowledge or that he took all reasonable precautions to avoid a copyright violation, he can avoid responsibility. precautions to avoid a copyright breach. Section 79 of the Act exempts "network service providers" from accountability for third-party information if he can demonstrate that he used due diligence and had no knowledge of the infraction or breach. The word "network service providers" refers to a "intermediary," which is defined as "any person that receives, stores,

or transmits a message on behalf of another person" in clause (v) of section 2(1). This definition is likely to encompass a website or an Internet service provider (ISP) that provides such services. Of course, the intermediary bears a disproportionate amount of the burden of proof in demonstrating due diligence. It's also debatable whether this absence of accountability would apply to civil law offences that don't fall within the Act's definition of "offences and contraventions," such as copyright infringement and defamation.¹⁷⁸

The Indian Information Technology Act of 2000, Chapter XII, contains particular restrictions for net service providers. Section 79 of the Communications Act of 1934 protects net service providers by enacting legislation that exempts them from liability in certain circumstances. The following are the provisions: An intermediary is not responsible for any information, data, or communication link housed by him that belongs to a third party. If the following conditions are met:

- (i) The intermediary's role is limited to granting access to a communication system through which third-party information is transmitted or temporarily stored; or
- (ii) The intermediary does not initiate the transmission, select the receiver, or select or modify the information contained in the transmission; or
- (iii) The intermediary observes the transmission.

The intermediary, on the other hand, may not be exempt from liability if —

- (a) The intermediary conspired, assisted, helped, or persuaded the conduct of the unlawful act, whether via threats, promises, or other means; or
- (b) If the intermediary receives actual knowledge or is notified by the appropriate Government or its agency that any information, data, or communication link residing in or connected to a computer resource controlled by the intermediary is being used to commit the unlawful act, the intermediary fails to remove or disable access to that material on that resource without vitiating the evidence.¹⁷⁹

Where the term "network service provider" refers to an Internet Service Provider. The Act specifically holds ISPs liable for copyright infringement, among other things. As a result, an ISP may be held accountable for any third-party data or information provided to him by a third party.

¹⁷⁸ CHRIS REED, INTERNET LAW TEXT AND MATERIALS 133 (Universal Law Publishing Co. 2010).

¹⁷⁹ The Information Technology Act, 2000, § 79, No. 21, Act of Parliament, 2000, (India).

If he can prove that the crime or contravention was done without his knowledge or that he had taken all reasonable steps to avoid a copyright violation, he can avoid responsibility.¹⁸⁰ However, it appears that filtering and policing all of the online sites that an ISP carries is almost impossible. As a result, there is concern that such articles of legislation may become "dead letters" in the statute books.¹⁸¹ An Internet Service Provider (ISP) will not be held liable under this Act, its rules, or regulations for any third-party information or data that he makes available if he can show that the offence or contravention was committed without his knowledge or that he used all reasonable efforts to prevent it.¹⁸² It is critical to consider diverse Indian case laws in this regard. According to the judicial answer, ISPs have been held accountable for acts of contributory infringement by failing to follow the provisions of the IT Act of 2000. The Delhi High Court issued a notice to the ISP Yahoo Web Services (India) Pvt. Ltd for infringing on the plaintiff's copyright by streaming one of its videos on the portal video.yahoo.com in the case of *Super Cassettes Ltd v Yahoo Inc and Anr*¹⁸³. Other ISPs, such as Google and YouTube, have received identical notices from the Delhi High Court. Section 52(1) (c) of the Act has also been amended to restrict liabilities. However, no explicit provision exists.

The Andhra Pradesh High Court dismissed the complaint in *Google India Pvt.Ltd.v. M/s Visaka Industries Limited and others*,¹⁸⁴ where the complainant M/s Visaka Industries Ltd was engaged in the business of manufacturing and selling Asbestos cement sheets and allied products, and two defamatory articles against it had been published by one Gopala Krishna, the Coordinator of "Ban Asbestos India," a Google-hosted group. The Court decided that a corporation that is a juristic person and has no body that may be damned or condemned is not immune from criminal accountability, and that if found guilty, the petitioner company could face suitable punishment, though not corporal punishment. Before being amended, section 79 exempted network service

¹⁸⁰ The Information Technology Act, 2000. § 79(1), No.21. Act of Parliament, 2000, (India).

¹⁸¹ *Id.*

¹⁸² Raman Mittal, *On line Copyright Infringement Liability of ISPs*, 46:2, J. IND. L. INST., 288 (2009).

¹⁸³ *Super Cassettes Ltd v. Yahoo Inc and Anr* 2009 (39) PTC 162 (Delhi High Court).

¹⁸⁴ *Google India Pvt. Ltd. v. Visaka Industries Ltd. And Others* AIR 2020 SC 350.

providers from liability under the Act, its rules, and regulations for any third-party information or data made available by them; however, it did not exempt a network service provider from liability, much less criminal liability, for offences under other laws, particularly the Indian Penal Code. Furthermore, the preceding rule excused network service providers from liability only if they could prove that the offence or contravention was committed without their knowledge or that they had used all reasonable efforts to prevent it. In *Syed Asifuddin and ors v The State of Andhra Pradesh & Anr*,¹⁸⁵ Tata indicom employees were charged with hacking a computer source code under Section 65 of the Information Technology Act, 2000 for changing the electronic 32 bit number (ESN) programmed into cell phones that were only to be used on Reliance Infocomm's service network. The court stated that such code tampering is a crime under Section 65 of the Information Technology Act of 2000. The infringer's culpability is stringent under the Indian Copyright Act, and he cannot claim "ignorance." Under the Act, those who aid and abet the infringement are likewise accountable. However, if a copyright violation occurs in cyberspace, ISPs can always claim ignorance¹⁸⁶ under the Information Technology Act of 2000. Making ISPs strictly accountable for computer crimes is the greatest method to defend the copyright owner's rights (including infringement of copyright). As a result, according to the author, a minor change to the nature of Section 79 of the Information Technology Act is required to achieve this effect.

ROLE OF INDIAN JUDICIARY IN THE CASE OF COPYRIGHT INFRINGEMENT IN CYBERSPACE

With the advancement of information technology, the internet is now used for both business and recreation. Data replication and piracy are fairly straightforward to do in an electronic format. The Supreme Court has ruled in *CIT v. Oracle Software India Ltd.*¹⁸⁷ that duplicating a CD at home can be considered piracy and a violation of Section 14 of the Copyright Act, 1957. Scanners, digital

¹⁸⁵ *Syed Asifuddin and Ors v. The State of Andhra Pradesh & Anr* 2006 (1) ALD Cri 96, 2005 CriLJ 4314.

¹⁸⁶ The Information Technology Act, 2000, § 79, No. 21, Act of Parliament, 2000, (India).

¹⁸⁷ *CIT v. Oracle Software India Ltd* 2010 (2) SCC 677.

cameras, recording software, e-mail programmes, ipads, ipods, mobile phones, and web TV, as well as data mining and other hardware and software tools, make infringing materials easy to reproduce and circulate.¹⁸⁸ According to a recent survey by the Indian Federation of Phonographic Industry, India, China, Brazil, Indonesia, and Pakistan are among the top ten countries where music piracy has reached unacceptable proportions.¹⁸⁹ According to the 2010 IFPI Report, despite the digital music business's continued expansion, which was close to USD 4.2 billion in 2009, illicit file sharing and other online piracy tactics have resulted in a significant loss to the music industry.¹⁹⁰ To combat music piracy, the UK government has proposed implementing an action plan that would disconnect people from the internet for two months if they downloaded unlicensed music more than five times. When it comes to internet piracy, the Indian judiciary is exceedingly strict. Before the release of movies like Speedy Singhs, Singham, Don2, and Bodyguard, the Delhi High Court awarded Jone Doe orders, or injunction orders, against potential unknown offenders to avoid copyright violations. As a result of the Jone Doe order, Internet Access Providers have blocked various file-sharing websites such as Megaupload and Filesonic (IAPs). The Internet service providers have been ordered by the Calcutta High Court to prohibit different websites that distribute unlicensed music. In a similar way, software owners may obtain John Doe orders to combat software piracy over the internet. The Delhi High Court dealt with a copyright infringement case in *Microsoft Corporation v Yogesh popat*¹⁹¹, awarding Microsoft Corporation compensation of Rs 23.62 lakh against M/s Compton Computers Private ltd and its directors for uploading pirated Microsoft software in computers the company sold after assembling parts. In the case of *Syed Asifuddin and ors v The State of Andhra Pradesh & Anr*¹⁹², Tata indicom employees were charged with hacking a computer source code under Section 65 of the Information Technology Act, 2000, for changing the electronic 32 bit number (ESN) programmed into cell

¹⁸⁸ ROGER CLARKE'S WEBSITE, www.rogerclarke.com/II/TPDCO.html (last visited Aug. 17, 2021).

¹⁸⁹ ZDNET RESEARCH, <http://www.Zdnet.com/blog/itfacts/top-10-countries-for-music-piracy-brazil-china-india-indonSia-mexicopakistan-paraguay-russia-spain-and-ukraine/8613> (last visited Aug. 19, 2021).

¹⁹⁰ MUSIK INDUSTRIE, https://www.musikindustrie.de/fileadmin/bvmi/upload/06_Publikationen/DMR/ifpi_digital-music-report-2010.pdf. (last visited Aug. 24, 2021).

¹⁹¹ *Microsoft Cororation v. Yogesh Popat* 118 (2005) DLT 580, 2005 (30) PTC 245 Del.

¹⁹² KARNIKA SETH CYBERLAW EXPERT, <http://www.karnikaseth.com/protecting-copyright-in-the-cyberspace.html> (last visited Sep. 2, 2021).

phones that were to be used exclusively on Reliance in focomm's service network. The court stated that such code tampering is a criminal offence under Section 65 of the IT Act. According to the court, a computer programme is a literary work protected by copyright under Section 2(o), (ffc), sections 13 and 14, and any infringement of a computer programme is criminal under Section 63. The court did note, however, that the trial court will decide this question after evidence is presented to the court. Because it was not reverse engineered for any of the exceptions listed in Section 65A of the Copyright Amendment Act, 2012, I believe that such tinkering will not be considered fair use under Section 52 of the Copyright Act 1957.

Doctrine of 'Sweat of the brow'

Prior to 1911, there was no legal requirement for originality in the United Kingdom.¹⁹³ Thus, copyright protection was awarded on a verbatim transcript of a public statement in *Walter v. Lane*¹⁹⁴ Lord Halsbury justified his ruling by pointing out that the Act did not require the work to be "original." Davey L.J., on the other hand, applied the sweat of brow principle to award protection. "the true principle in all these cases is that the defendant is not at liberty to use or avail himself of the labour which the plaintiff has been at for the purpose of producing his work, that is, in fact, merely to take away the result of another man's labour, or, in other words, his property." As a result, the claimant was entitled to protection if she had put in the necessary labour for the job.¹⁹⁵ The traditional "Sweat of the Brow" theory, i.e. the use of talent, labour, and capital, has changed dramatically, and the "Flavor of Creativity" has replaced it as the decisive factor. Only in 1911 was originality made a statutory requirement in the United Kingdom. Following this amendment in the Act, the judicial judgement issued in *University of London Press Limited v. University Tutorial Press Limited* in 1916, continues to govern the field in English law. The issue in this case was, among other things, whether the examiners' papers were original literary work within the meaning of the Copyright Act of 1911. The court decided that the questions passed the originality test, but that the term "original" did not imply that the work had to be "an expression of creative

¹⁹³ E.P.SKONE JAMES ET AL., COPINGER AND SKONE-JAMES ON COPYRIGHT 58 (Sweet & Maxwell 1991).

¹⁹⁴ *Walter v. Lane* (1900)A.C.539.

¹⁹⁵ *Eastern Book Company v. Navin J.Desai*, 92 (2001)DLT 403.

or inventive ideas." It was stated that the Copyright law is concerned with the originality of expression of that notion rather than the originality of ideas. It stated that all that is required for originality is that the work originates from the author and is not a copy. Finally, it established a rough practical criteria, stating that what is worth copying is, at the very least, worth protecting.¹⁹⁶ So, the most important thing to show is that the work isn't plagiarised. Even so, labour and judgement alone in the process of copying will not make it unique. As a result, it is original if the claimant does not allude to pre-existing subject matter. Difficulties emerge where she has. If she has put in enough labour and talent, she will be granted copyright protection. The work as a whole should be original. However, the question of how much originality is required, i.e., how much skill and labour is required to create a unique work, remains unsolved and is decided on a case-by-case basis. However, this investigation does not have to lead to an all-or-nothing verdict; the court may decide that only a portion of the work is original and hence protected by copyright.¹⁹⁷ The Indian government's stance on the matter is unclear. The problem of the content of the originality requirement in Indian law has been left unresolved by the courts, and the recent decision of the Delhi High Court further adds to the confusion.

The most Indian courts have tended to apply the principle of "sweat of the brow" in coming up with a solution to the criterion of originality. Even though the amount of originality in the case of "compilation" will be very small, it was held in *Govindan v. Gopalakrishna*¹⁹⁸ that even that small amount is protected by law, and that no one is entitled to steal or appropriate for herself the result of another's brain, skill, or labour even in such works. The Delhi High Court upheld the sweat of the brow hypothesis as meeting the criteria for copyright protection as late as 1995. In *Burlington Home Shopping Pvt Ltd v. Rajnish Chibber*,¹⁹⁹ the plaintiff invested a significant amount of money and time in developing a clientele/customers database over a three-year period prior to the formation of the suit. The topic that emerged for examination was whether a database

¹⁹⁶ MANU LUV SHAHALIA, PERSPECTIVES IN INTELLECTUAL PROPERTY LAW 85(Universal Law Publishing Co.Pvt.Ltd 2003).

¹⁹⁷ *Ib.*

¹⁹⁸ *Govindan v. Gopalakrishnan* AIR 1955 Mad 391.

¹⁹⁹ *Burlington Home Shopping Pvt Ltd v. Rajnish Chibber* (1995) 6Ent Rev 159 (Del).

consisting of a collection of customer postal addresses might be subject to a copyright. Even though such information is available in the public domain and there is no uniqueness in the arrangement of the data, the Delhi High Court held that such compilation would meet the requirement of "literary work" under the Copyright Act because it requires a significant amount of money, time, labour, and skill. In another decision, *Eastern Book Company v Desai*,²⁰⁰ the Delhi High Court, citing the Feist case,²⁰¹ states that in order to meet the standards of originality and obtain copyright protection, there must be some "modicum of inventiveness" in the arrangement and compilation of the information. The Court concluded in this instance that simply correcting typographical errors and adding quotations did not meet the threshold of originality to be protected under copyright rules. The Delhi High Court granted a perpetual injunction and punitive damages against the respondent who duplicated an online database of the plaintiff containing information on herbs and its cure in *Himalaya Drug Company v. Sumit*.

Jurisdiction in the case of copyright violation

In India, jurisdictional issues have more to do with procedural procedures than with copyright legislation. However, because of the nature of the internet (which has no bounds), these concerns inevitably occur and create roadblocks in most copyright-related matters in cyberspace (where should one file a suit of copyright infringement as two parties have only virtual nexus with each other). Until now, India's cyber-jurisdiction has been virtually non-existent. In the first place, as a result of the firmly unitary government type that prevailed in 1999. Interest disputes in India never rise to the level of private international law. Hence, there have only been a few instances in Indian courts where the requirement for Indian court jurisdiction has arisen. A dispute has erupted over a foreign subject. However, such a jurisprudential shift would be problematic. As the Internet and e-commerce continue to diminish boundaries, it will become increasingly important in the near future and combine jurisdictional limits based on geography and territory. There are two of them conditions that should be taken into account²⁰²

²⁰⁰ *Eastern Book Company v Desai* 92 (2001) DLT 403.

²⁰¹ *Feist Pubs., Inc. v. Rural Tel. Svc. Co., Inc.*, 499 U.S. 340 (1991) 499.

²⁰² Subhasis Saha and Sourav Keshri, *Challenges to Copyrightable Work in Cyberspace* 13 J. Intell. Prop. R., 35-42 (2007), <http://docs.manupatra.in/newsline/articles/Upload/D7125C3A-9677-44B6-B8A2-08998678C5F4.pdf>.

(a) The process through which foreign courts obtain jurisdiction over Internet-related disputes issues,

(b) The result of an order issued by a foreign court.

Cyber laws and the Information Technology Act 2000 do not define the jurisdiction. As a result, it is a legal issue in cyberspace. The fundamental issue with Internet Jurisdiction is that the presence of many parties, the fact that people from all over the world have only virtual access connection with one another. Then there's the issue of location, or where the party wishes to go sue?

The term "jurisdiction" is defined by the Oxford Dictionary as "the right to administrate." Jurisdiction can also be described as a court's power or authority to hear cases and decide a cause for adjudication and the exercise of judicial power in connection with it. In other terms, "jurisdiction" refers to a court's ability to decide on issues are disputed before it, or to take official cognizance of matters brought before it a decision the ability or authority of a court to hear a matter and make a decision is known as jurisdiction case or settle a disagreement over a person, property, or topic. Traditional jurisdictional concepts in India involve two areas:

(i) The place where the defendants reside, or

(ii) Where the cause of action arises.

The judicial power of a state extends to the punishment of all offences of the state's municipal laws committed by anyone on its territory. It also has the authority to prosecute all such offences committed by its nationals, regardless of where they occur. The main concept of international law is that every person located in a foreign State, whether a citizen or a foreigner, is subject to and punishable by its law; otherwise, no civilised system of jurisprudence could govern the criminal law. As a result, if a person's copyright in India is infringed upon via the Internet, the courts in India have jurisdiction to take action under Section 62(2) of the Copyright Act, 1957. The choice of law provisions are mentioned in the Indian Copyright Act, 1957, in the form of the International Copyright Order 1999, which allows copyright protection under the Copyright Act, 1957, if the work is first published in India and the work belongs to a member country of the Berne Convention, the Universal Copyright Convention, or the World Trade Organization, as specified in the International Copyright Order.²⁰³ Section 1(2) of the Act, when read along with Section 75,

²⁰³ IAN J. LLOYD, , INFORMATION TECHNOLOGY LAW 39 (Butterworth's 2000).

provides for extraterritorial application of its provisions. Thus, if a person (including a foreign national) infringes on a person's copyright using a computer, computer system, or computer network in India, he will be held accountable under the Act's provisions. The Act also applies to offences or contraventions committed outside India, as provided for in sections 1(2), 75, and 82. The Act applies to a crime or violation committed outside India by any person if the act or behaviour constituting the offence or contravention includes a computer, computer system, or computer network situated in India. Thus, if a person infringes on another's copyright, which is kept in electronic form on a computer in India, that person may be prosecuted under India's copyright rules.²⁰⁴ All suits must be filed in the county where the defendant or one of the defendants lives, provides for a living, or where the cause of action arises in whole or in part, according to Section 15 to 20 of the Code of Civil Procedure. Section 62 of the Copyright Act, on the other hand, favoured the plaintiff and, notwithstanding Section 20 of the Code of Civil Procedure, allowed the plaintiff to file a lawsuit in any district court where he or she “actually and voluntarily resides, carries on business, or personally works for gain.”

The Delhi High Court had jurisdiction to adjudicate the case in *India TV v. India Broadcast Line*,²⁰⁵ because evidence was presented to show that the website's target audience and huge consumer base were in India. The plaintiff in *Casio India Company Limited v. Ishita Telesystems Private Limited*,²⁰⁶ had a contract with Casio Japan granting him the right to utilise the Casio brand. The plaintiff's Locus standi to file the lawsuit was questioned by the defendant, who was utilising the Mark casioIndia.com domain. The court determined that no particular assignment was required for the plaintiff to file the lawsuit because the right arose naturally from the plaintiff's status as a juristic person under the businesses, and thus the plaintiff has Locus standi to file the lawsuit. It was held in *Banyan Tree Holding (P) Limited v. A. Murali Krishna Reddy and Others*²⁰⁷ that simply accessing a website in Delhi could not justify the Delhi Court's exercise of jurisdiction;

²⁰⁴ Raman Mittal, *On line Copyright Infringement Liability of ISPs*, 46:2 J. IND. L. INST., 288 (2004).

²⁰⁵ *India TV v. India Broadcast Line*, (2007) Delhi H.C.

²⁰⁶ *Casio India Company Limited v. Ishita Telesystems Private Limited*, (2003), Delhi High Court.

²⁰⁷ *Banyan Tree Holding (P) Limited v. A. Murali Krishna Reddy and Others*, (2009) Delhi H.C.

rather, It had to be demonstrated that the defendant "purposefully availed" itself of such jurisdiction by proving that the defendant used the website with the aim to conduct a business transaction with him. Any court with direct jurisdiction over the subject is granted jurisdiction under Section 62 of the Indian Copyright Act, 1957. It goes on to describe how the courts' jurisdiction is limited. The Information Technology Act, once again, provides for extraterritorial jurisdiction in cases of cybercrime. Section 74 of the Indian Penal Code provides that any offence involving a computer or computer resource in India can be prosecuted under Indian law.²⁰⁸

CHALLENGES:

Jurisdictional issues in cyberspace

In India, there is essentially no jurisprudence on the subject of Internet jurisdiction. Without jurisdiction, a court's decision is impotent and meaningless. Subject matter jurisdiction and personal jurisdiction are the two categories of jurisdiction. For a judgement to be entered, these two conditions must be met simultaneously effect. In the lack of such authority, a court's decision would be suspect, to say the least. It's of little or no use. Because of the universal nature of the Internet, two key difficulties for legal systems have arisen as follows: around the world

- (i) Where should a plaintiff file a suit if he believes his rights have been violated infringed upon in cyberspace?
- (ii) To what extent can laws be enforced against a defendant who lives in another country based on activity that occurred online, beyond the authority of a court?
- (iii) It has long been assumed that jurisdiction rests in one of two places: the location of the defendant's residence or the occurrence of the cause of action However, it is claimed that in the case of Internet transactions, this is not the case. It's not easy to establish either of the two locations conclusively.

For example, A, an Indian, runs a website from a Singapore-based server. Uploads items to it, the copyright for which is held by a French author. a person who is Thailand then downloads the articles and pays for them with a credit card. The author intends to file a lawsuit against the

²⁰⁸ Barlow JP, *The economy of ideas*, 1, (1994), http://metatubc.weebly.com/uploads/5/2/4/3/5243037/barlow_-_economy_of_ideas_summary.pdf.

infringer. What is the defendant's address? The infringement occurred through the internet. Was it in Thailand or India, then? As a consequence, one of the most often asked questions is: that arise when copyright infringement occurs on the Internet are: jurisdiction, which, as previously said, is difficult to prove. There is a requirement for to manage cyberspace, the government reforms or rather enacts new laws. In this approach, one effort has been undertaken. In the framework of the WIPO Copyright Treaty of 1996, which, at least in theory, highlights new technological advancements Despite the fact that it does not mention anything, when it comes to the Internet, the only possible interpretation is that Article 8 of the Internet Treaty is a treaty that deals with the internet. This is due to the terms "via wire or cable" being used. These works can be accessed by wireless methods by anybody, including members of the public. They choose their own time and place" and it is suggested that, aside from the Internet, there is no alternative "wired or wireless" way by which the "public can access the works at any time." They can choose any time and place they want." However, one of the most significant drawbacks while the Treaty recognises that authors have the freedom to publish, it also states that permitting the dissemination of information to the general public. It is deafeningly silent on the practical issue of enforcement.

Evidentiary challenges

The evidential regime on the Internet is fraught with difficulties. In comparison to the equipment required to make large quantities of physical copies of tapes and discs, computers that can easily copy digital information are relatively inexpensive, making evidence of copyright infringement on the Internet extremely difficult to collect from the end user. As a result, the extent of piracy is widespread. Furthermore, locating the individual who has downloaded copyrighted material and then duplicated it into physical media for sale is the most difficult task.²⁰⁹ Copyright infringement in internet can easily go undetected since, unlike in physical space, it takes place behind closed doors in cyberspace. As a result, infringing copies are transmitted electronically without passing through any government-controlled border or physical location, making it impossible for law

²⁰⁹ N.S. GOPALKRISHNA, INTELLECTUAL PROPERTY AND CRIMINAL LAW, (Bangalore: NLSIU 1994).

enforcement organisations to track down and identify online copyright pirates.²¹⁰ Despite the fact that the police are empowered by Sec. 64 of the Copyright Act to take action against copyright infringement even without a Magistrate's order, they fail to do so either because they are unaware of how to prosecute these offences or because they are uninterested in these types of crimes. It is also important to note that while technological ignorance. Furthermore, whereas any law enforcement agent can investigate offline infringements, computer violations necessitate the use of technically skilled agents, which are in short supply. Even when investigative agencies have such capabilities, they are frequently called upon to look into other major computer crimes, such as attacks on computer systems and data's confidentiality, integrity, and hacking. The investigation of online copyright infringement takes a back seat in such instances.²¹¹

²¹⁰ Harvard Law Review Association, *The Criminalisation of Copyright Infringement in the Digital Era*, 112 (7) HARV. L. REV., 1705, (1999).

²¹¹ *Id.*

CHAPTER: 5

CONCLUSION AND SUGGESTION

Conclusion:

Intellectual property is a cultural value that emphasises that information cannot be monopolised by anybody and should be freely disseminated, much as a lit lamp dispels the darkness of ignorance. Intellectual property rights are intangible assets that contribute significantly to the advancement of technology, inventions, art, services, products, and national economies. Intellectual property rights must be safeguarded at all costs. Only by understanding intellectual property rights concerns and taking timely action to preserve our legitimate interests can we maintain such vigilance. Because of the worldwide consequences of information technology, it has become much more critical. Throughout the previous few years, engineers and scientists have developed technologies that allow computer users to interact globally. The twenty-first century is known as the "Mind Century." The century will be dominated by mental products. To fully benefit from the information technology revolution, a significant effort must be completed. However, the development of such technologies poses severe legal and regulatory obstacles to the protection of intellectual property rights in cyberspace, such as copyright, patents, and trademarks. Some challenges involving intellectual property rights are actually unusual, necessitating a re-evaluation of existing legal and regulatory paradigms that may not be compatible with this new technology. At all levels, the interplay between intellectual property and the internet has been accepted. Such technological advancements put the fundamental principles of intellectual property rights and their protection under jeopardy. The numerous issues offered by technology are connected to distribution, catching, linking, copyright protection, and so forth. As a result, achieving a suitable balance between private rights and public interest in cyberspace may need a significant amount of effort. The traditional interpretation of copyright law does not apply to Internet-related conflicts. Legislation and developing court decisions provide insufficient protection to solve the current challenges. However, their importance cannot be dismissed entirely, as these rules have been tailored to meet the needs of the system, mostly through judicial inventiveness. Intellectual property laws are constantly being updated to keep up with technical advancements, but considerable revisions are still needed to address the issues brought by the Internet and digital revolution. The growth of the Internet has created a new cyberspace for copyright exploitation,

infringement, distribution, circulation, and publication, and it is so easy and widespread in the electronic environment that anything in digital form has a higher possibility of losing royalties than anything else. Copyright infringement in cyberspace exemplifies the modern technique of infringement, which includes online intermediaries, right holders, and the general public as defendants. The form of infringement could be explained by traditional copyright rules, such as the Copyright Act of 1957. The basic goal of copyright law is to safeguard the creator of a copyright work's skill, investment, and effort. However, current copyright rules will not be able to prevent rights infringement. The digital environment, or cyberspace, needs to be regulated to protect and encourage authors by prohibiting piracy, linking, caching, and other forms of exploitation. However, India's copyright law improves the statutory protection afforded to authors and owners in a traditional sense, but not in cyberspace. Though the Copyright Act of 1957 protects computer programmes in India, it does not enable remedies for online software piracy in cyberspace. As a result, provisions regarding the new advanced mode of file sharing and related difficulties, as well as the liability of online intermediaries, are required. It's past time to acknowledge that traditional copyrights are increasingly at conflict with quickly expanding digital information technologies that encourage open access, global distribution at near-zero marginal cost, and creative consumers of digital content.

Copyright protection in a digital medium runs against the Internet's "open source" nature. Protection of rights in cyberspace is now a technical difficulty, and in the face of the rapid advancement of information technology, copyright protection in cyberspace has prompted the legal community to adopt complex legal solutions to address the issues posed by IT. Cases like Napster have demonstrated that copyrighted works in cyberspace are extremely vulnerable due to normal people's simple access and the likelihood of unauthorised tampering with and transference of such works, which are cheaply and simply available on the Internet. For copyright protection in cyberspace, the new Copyright Amendment Act, 2012, harmonises the copyright legislation with the WIPO Copy Treaty and WIPO Performance Phonograms Treaty to some extent. The establishment of new Section 65A, which provides legal protection to authors' technological protective methods, is a positive step in India. To avoid penalties for contributory infringement of copyright, ISPs must monitor and filter infringing sites. Nevertheless, no such case has ever gone to court; it is essential since ISPs have a legal obligation to safeguard their authors, creative directors, and designers. Because cyberspace is global, copyright issues in the digital era present

significant challenges to Indian courts. As a result, the Copyright Act's provisions are broad enough to include cyberspace violations, and the Act itself grants broad jurisdictional powers to Indian courts to take notice of the matter under Section 62(2) of the Act and Section 20 of the CPC. There is no provision in Indian law on the circumvention of technological measures and rights management information used to protect copyright on the Internet, as needed by the WCT and WPPT, which must be incorporated into national legislations of various member countries. In light of this new situation, existing international conventions have been determined to be insufficient to handle the concerns raised by new technology. However, the WIPO performance and phonograms Treaty of 1996, which was just enacted, appears to address some of these difficulties in the context of the digital environment. In cyberspace, copyright must be enforced in such a way that user's rights are protected and a healthy public domain exists.

The Information Technology Act of 2000 does not address issues involving infringement of any Intellectual Property Rights, such as copyrights. There is no central authority or control point on the Internet. Because information technology is a borderless field, no single governing body has exerted total legislative control over the Internet. The virtual world of cyberspace requires its own law, and the fact that there are no geographical boundaries in cyberspace and disparate laws around the world presents a fundamental issue in enforcing cyber laws. Giving an institution supranational powers over protection against infringement of intellectual property rights in cyberspace, thereby erasing borders and creating a single, worldwide cyber jurisdiction, would be a highly drastic and straightforward way to solve the problem. Protocols created through participatory decision-making processes by organisations such as the Internet Engineering Task Force (IETF) and its sub committees, as well as the Internet Assigned Numbers Authority, have driven technical advancement (IANA). In respect to these international conventions/treaties like WIPO, ICANN, and UDRP, which have caused international jurisdictional concerns, it appears to be more suitable to safeguard and promote the interests of IP holders in cyberspace. The WIPO Mediation, Arbitration, and Expedited Arbitration Rules and Clauses were developed with the active participation of many of the world's leading alternative dispute resolution and intellectual property experts. The WIPO Rules and Clauses, which are available in numerous languages, take into account the most recent advancements in the field of dispute resolution and can be utilised in any legal system around the world. The WIPO centre provides advice and oversees procedures carried out in accordance with its Rules. Parties can choose from a growing pool of over 1,000 WIPO

arbitrators and mediators from more than 70 countries. The WIPO roster of neutrals includes seasoned dispute resolution generalists as well as highly specialised practitioners and experts who cover the whole legal and technical spectrum of intellectual property. The WIPO Center is also a leader in the development and implementation of customised dispute resolution methods. Over 20,000 cases have been processed by the WIPO Center.

The Indian government has established a sound method for making cyber legislation a netizen's best buddy. We cannot prolong this matter out by relying on parallel intellectual property laws. The process of designing, debating, and enacting extensions to existing copyright rules, on the other hand, is just getting started. Copyright protection will take months, if not years, to come into effect. Special care must be taken to ensure that any policy produced for one interest or function does not have an undue impact on, or interfere with, the formulation of another, and should instead be based on a conciliatory approach. The various elements of the cyber mechanism are designed to allow individuals to take advantage of opportunities in the cyber domain while also ensuring that they are not caught up in those who are attempting to abuse the law. The Department of Information Technology, Ministry of Information and Communication Technology Government of India, is one of these aspects. As a result, a more thorough and in-depth examination of policy, law, and technology relating to copyrights is urgently needed, as is the establishment of a common meeting point for the resolution of disputes and a faster response to the dangers posed by the oncoming tide of electronic revision and invasion. Cyberspace jurisdiction necessitates the application of explicit, international law-based standards. These principles are the only way to persuade courts around the world to adopt standard responses to concerns of Internet jurisdiction. Participation of international organisations, professional and industry associations, law enforcement agencies, cyber law experts, and other relevant bodies in the development of multilateral Treaties/Conventions and the formulation of a Code of Conduct for Cyberspace will also aid in the development of clear principles that will govern the cyberspace. As per the result, it is better to develop some clear guidelines to ensure that disputes are avoided rather than settled. As a result, the many international conventions, treaties, and legislations, as well as their application and absorption of provisions into national laws, have created a reasonable foundation for copyright protection in cyberspace. It is critical that the law bridges the gap between ancient norms and new necessities as society evolves and new technologies develop. Lawyers, legal

experts, and other observers are only now beginning to consider the issues posed by this new technology frontier's interactive computer capabilities.

Suggestions:

- ❖ In India, a key worry is the lack of expertise among law enforcement institutions. Law enforcement officers aren't well-versed in cyber laws. In order to enforce intellectual property rights successfully in the digital world, law enforcement officials must get adequate training to provide them with legal and technical understanding. Lawyers, judges, and judicial officers from civil and criminal courts could be involved in discussions on cyber law, and specialised workshops on cyber intellectual property laws could be held at the National Judicial Academy to improve understanding of the law and speed up the delivery of justice in e-disputes.

- ❖ Fighting infringement is difficult due to a lack of suitable legal measures for keeping internet usage data and records. It is necessary to enact stronger rules requiring the keeping of logs and registers for internet usage. To address these complex concerns, adequate legal structures will need to be devised. Internet Service Providers (ISPs) should be required to maintain and preserve logs for a reasonable period of time under Section 79 of the Information Technology Act of 2000 to aid in the tracing of IP addresses in such circumstances.

- ❖ The definitions of "reproduction," "fair dealing," and "copying" should be added to Section 2 of the Copyright Act 1957, so that interpretation of Section 52 of the Copyright Act, which deals with acts that do not constitute infringement, can be based on those definitions, bringing more certainty and clarity to the law.

- ❖ Section 52 of the Copyright Act should include certain criteria for deciding when "unauthorised reproduction of a work" results in "fair dealing" of the work, as it does in the United States of America and Singapore.

- ❖ Similar to surfing, catching activities for personal use, such as research, educational, and teaching objectives, should be specifically covered in "fair dealing."
- ❖ Links should be viewed as "address compilations." i.e., URLs should be recognised as subject matter for copying in the same way that a "directory of addresses" is, but the protection should not extend to the links themselves. The term "compilation" may be included in the definition of literary work, and it may be explained that links are a collection of addresses.
- ❖ A few administrative actions should be implemented in order to implement and enforce legal provisions, i.e., to make legal tools a reality. For example, a central office should be established to act as a coordinating agency between the special copyright enforcement cells established in various Indian states to handle cases of copyright violations.
- ❖ The Copyright Alert System in the United States and the voluntary Copyright Alert Program in the United Kingdom are both successful ways to prevent infringements. Such a private system for notifying, teaching, and disciplining internet subscribers for peer-to-peer file sharing will be available at lower local levels rather than going for broader, national, and international searches for copyright infringements in cyberspace. India needs to implement a monitoring system like this.
- ❖ In the digital era, anonymity on the internet offers a severe problem in tracking infringers, as the use of proxy servers and other spoofing techniques can make tracing intellectual property difficult. It is suggested that sufficient manpower and resources be devoted to creating and promoting technologically competent IP tracing applications as well as forensic science education. To discover and identify cyber criminals on the internet, technologically advanced techniques and software to detect spoofing and trace the correct IP addresses are required.

- ❖ The term "cybersquatting" should be defined, in the Information Technology Act 2000 relating to cybersquatting and it should be revised to provide statutory damages and penalties for repeat offenders.
- ❖ The law has not been very effective in preventing copyright infringement in internet linking and framing. Existing copyright laws should be changed to give an adequate remedy by implementing some preventive measures. The infringement can be required to provide a disclaimer saying that the linked or framed site has no association with the linking site. A broad warning to the viewer that she or he may be transported to a new site can be presented. These disclaimers or warnings should be prominently displayed and easily read. A web page protection programme can also be installed by the website owner to prevent unauthorised linking or framing.
- ❖ There should be a universal cyber law for the protection of intellectual property rights in cyberspace to point out the drawback of infringement of intellectual property rights in cyberspace and the involvement of numerous jurisdictions, not just international treaties. Global efforts to harmonise cyberlaws will be critical in filling in the gaps and crystallising the rules of cyberspace.
- ❖ In order to impose liability, the Internet Service Provider should make an effort to keep and maintain records of each subscriber's cyberspace behaviour and practises. Today's cyberspace offers a diverse range of investment opportunities, opening up new avenues for deception and fraud.
- ❖ As outlined in the Online Copyright Infringement Liability Limitation Act (a United States Federal law), the Information Technology (Amendment) Act, 2008, should cover concepts such as storage as a system cache, storage of data on systems or networks at the direction of users, and information location tools. As a result, relevant provisions of the Indian copyright as well as the Information Technology Law must be included.

- ❖ A new clause in the Copyright Act of 1957 is needed to manage copyright breaches on the Internet. Literary works, images, sound recordings, and other creative works are protected from being duplicated without the consent of the copyright holder under sections 13 and 63 of the Indian Copyright Act, 1957. It's still unclear how copyright law will apply to these files as they emerge on the internet.
- ❖ There may be a worldwide model law to protect cyber intellectual property, which would assist national law with the cooperation of international organisations (WIPO, ICANN, UDRP, UNCITRAL Model Law). As a result, the model legislation can resolve technical issues such as time, jurisdiction, and so on. The appropriate law, the severity of the punishment, the jurisdiction, and so on can all be determined in this way.
- ❖ Public education programmes are required. Internet users should be educated about copyright infringement and informed about all intellectual property laws, including the Information Technology Act of 2000, and the public should be aware of the steps they can take to protect their copyright and data in electronic form, as well as software in cyberspace.
- ❖ Users of social networking sites, blogs, and video sharing sites should review the events, rights, and social media regulations relevant to the use of intellectual property in cyberspace. Users must use the social media networks infringement reporting and counter-reporting methods.
- ❖ Digital right management (DRM) encrypts the contents of intellectual property rights on the cyberspace to safeguard them. Genuine licence holders are given the decryption key. It appears to be highly useful in protecting the copyright owner's digital rights. However, even after the company has experienced violations as a result of the DRM mechanism, reporting is critical.

- ❖ Treaties and conventions are commonly used to reflect international consensus. It would be more appropriate to create an international treaty or convention to address the difficulties in the realm of intellectual property rights infringement in cyberspace. These solutions have the potential to assist achieve global legal uniformity.

It is conceivable to better protect intellectual property rights in cyberspace if the above proposals are implemented through appropriate means.

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- The Governmental Advisory Committee

APPENDIX

CHAPTER 1 New

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Normal No Spacing Heading 1 Heading 2 Title Subtitle Subtle Emph...

Geethu Mohan

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CHAPTER 1

INTRODUCTION

Property can be physical or intangible. Material things have corporeal property, which is visible in nature it has a physical existence in most cases. It can be seen and felt, for example, land, goods, and so on. Incorporeal property, on the other hand, is intangible in nature and can exist in both material and immaterial entities. Leases, servitudes, easements, patents, copyrights, trademarks, and so on are examples of abstract property that may or may not be apparent. Intellectual property is not tangible and abstract in nature, arising from man's intellect. It is a form of incorporeal property that can be valued at the same level as corporeal property. Salmond has rightly said that "Immaterial product of a man's brain may be as valuable as his land or his goods. The law, therefore, gives him a proprietary right in it..." Human being is the only living species on the planet with a creative intellect. His ability to invent new items and make his life more pleasant and luxurious has resulted from his ingenuity, skill, and imagination. In the twenty-first century, any new items that a person produces by using his mind are considered his property, and such

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