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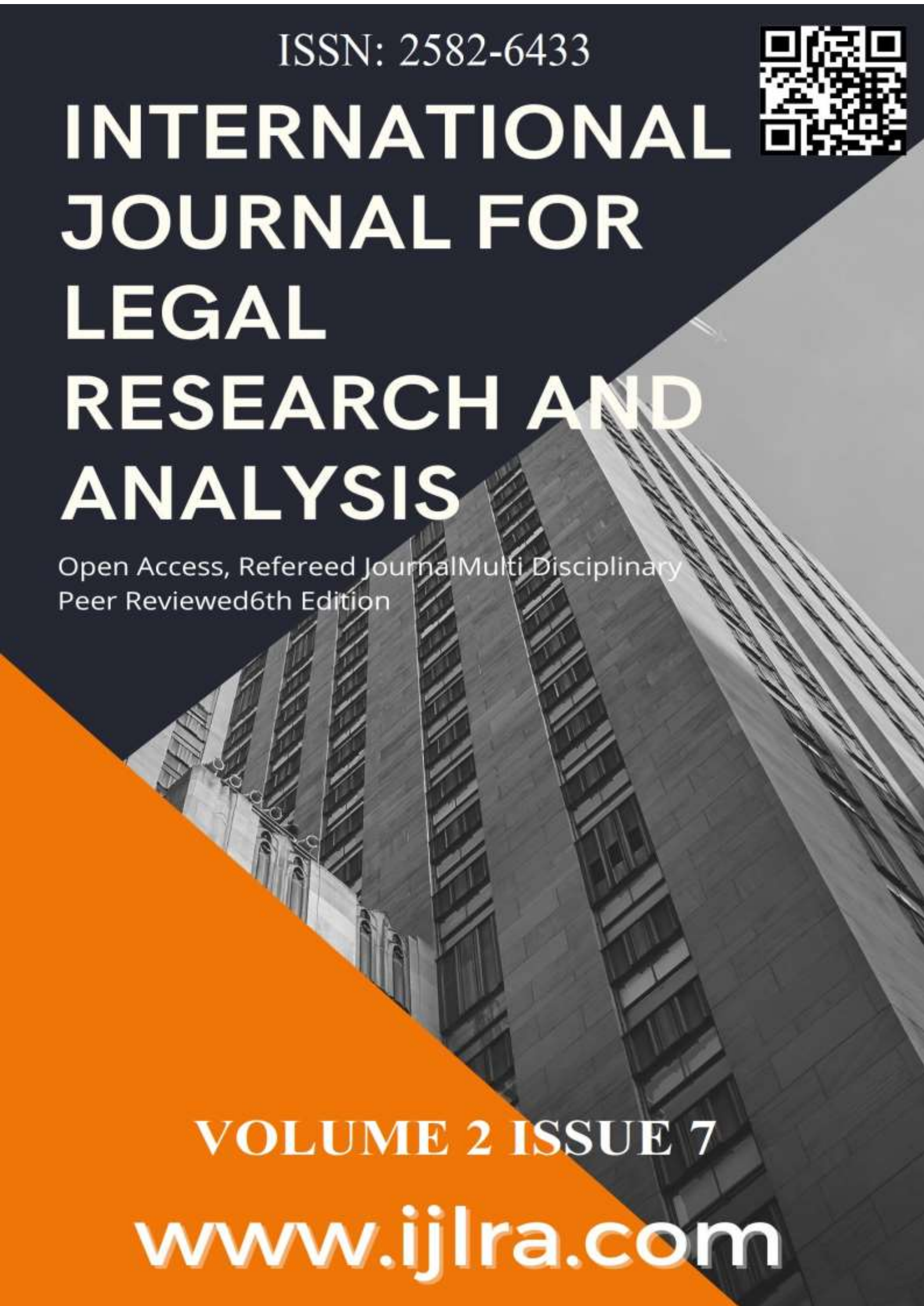

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LEGAL REGIME ON RESPECT OF TECHNOLOGY- TRANSFER A STUDY WITH SPECIAL REFERENCE TO IPR LAWS

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DECLARATION

I, Abhinav Agarwal declare that the dissertation titled "LEGAL REGIME ON RESPECT OF TECHNOLOGY- TRANSFER A STUDY WITH SPECIAL REFERENCE TO IPR LAWS" is the outcome of my own work conducted under the supervision of Ms. Ekta gupta, at Amity Law School, Amity University, Noida (Uttar Pradesh). I declare that the content of this dissertation is an original piece of work prepared by me and due acknowledgement has been made in the text toall other material used and that the same has not been submitted in any university or college or anyother programme for any other purpose.

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PREFACE

The legal regime on respect of technology transfer is a complex area of law that encompasses various aspects of intellectual property, competition, contract, and international trade law. The purpose of this study is to explore this legal regime with a specific focus on intellectual property laws, which play a critical role in regulating technology transfer.

The study will examine the different types of technology transfer arrangements, including licensing, joint ventures, and mergers and acquisitions, and the legal frameworks that govern them.The study will also analyze the various international agreements and treaties that impact technology transfer, such as the TRIPS Agreement and the Paris Convention.

The study will further explore the challenges and opportunities that arise from the legal regime on technology transfer, including issues related to intellectual property protection, competition law, and access to technology by developing countries. Finally, the study will propose recommendations for policymakers and practitioners to enhance the legal framework governing technology transfer and to promote innovation and economic growth.

Overall, this study aims to provide a comprehensive understanding of the legal regime on respectof technology transfer, with a particular emphasis on intellectual property laws, and to contributeto ongoing debates on how best to regulate this important area of law.

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CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

Humans are the only species capable of possessing the intelligence necessary for creative reasoning. There is no other animal species that is capable of performing this duty. The human capacity for invention, talent, and creativity has enabled people to generate new ideas that have significantly advanced the quality of human life. These new notions have enabled humans to make substantial progress toward a higher standard of living. It is common knowledge in the twenty-first century that the term "Intellectual Property Rights" refers to the ownership a person has over any new objects they have created using their intellect. In essence, these rights recognize that any new physical objects or mental advancements resulting from an individual's ideas, talent, effort, and financial investment are their property and cannot be licensed to others. This eliminates the possibility of selling such intellectual property to third parties. In addition to mental creations, other categories of property that can be classified as intellectual include works of literature, music, and other artistic endeavors, inventions, commercially exploited symbols and designs, and commercial images and designs. This is due to the fact that intellectual advancements require more than just creative ability; they also necessitate substantial expenditures of both resources and money[1]. Patents, copyrights, trademarks, designs, and geographical indications are just some of the many categories of intellectual property rights that fall under the umbrella of intellectual property rights. The term "intellectual property" is frequently applied to intangible or non-physical forms of legally protected property. The elements that comprise intellectual property are regarded as intangible property; the assurance that these elements will be protected encourages and inspires inventors and creators to produce original works that contribute to the expansion and development of society. For a predetermined period of time, artists receive exclusive proprietorship of their original works and legal protection under the umbrella of intellectual property rights. This protection grants the proprietor exclusive rights, preventing others from exercising those rights and thereby restricting their personal liberties. These privileges can only be exercised by the rightful owner. Following the expiration of this window of opportunity, the works will be made available for consumption and use by the general public. Every type of intellectual property has

[1] Ahmmad, Kammal., The Law of Cyber Space-An invitation to the Table of Negotiations, (United Nations Instituteof Training and Research 2005)

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its own unique methods for obtaining legal protection, as well as its own nomenclature for the broadest classification. In recentyears, the value of intellectual property has escalated due to the modern economy's increased reliance on the accumulation and application of information. This increase in value is adirect resultof technological advancements such as the internet, which have made it possible for us to functionas a global society independent of national governments. In the world we inhabit today, we are notonly a part of a global culture, but also a part of a global community[2]. The current era, in which geographical borders no longer impede the operation of the international economy, is frequently referred to as a "global village," a metaphor commonly used to describe this era. Without a websitewith a domain name and internet access, it is impossible to fulfillone's responsibilities in today's society. As a direct result, sectors of the economy reliant on information technology and the internet have assumed a position of paramount significance. Protecting intellectual property rights,such as copyright and trademarks, has become a major concern as a result of technological advancements and the emergence of the Internet. TheInternet is referred to as the "largest copy machine in the world" because it facilitates the easy and rapid reproduction of high-quality duplicates. Therefore, it presents a greater threat to intellectual property rights than conventional modes of communication. In order to address these concerns and provide effective legal protectionand restitution for victims of violations of intellectual property rights in cyberspace, new laws andproactive protection measures are required. These issues can be resolved by addressing the need for new laws and proactive safety measures. The proliferation of domain names, websites, and Internet connections has also created issues regarding the use of previously registered trademarks in more conventional contexts. Therefore, it is crucial that we discover solutions to copyright issues in the age ofdigital technology[3]. Implementing new protection and affirmative action laws is one possible strategy for achieving this objective. This may be accomplished through the creation of new rules and regulations. Passage of additional legislation mandating the use of affirmative action is an additional means of achieving this objective. Due to the rapid expansion of the internet and thechanges it has brought to the world, traditional legal systems are finding it increasingly difficult to keep up. The internet has revolutionized people's ability to communicate, exchange information, and conduct business. Even though some internet-related laws and decisions have been made, many of the most complex legal issues have been postponed due to their difficulty. We hope that this strategy will prevent future misunderstandings and disagreements.

[2] Agarwal & Gupta, Cyber laws, 1 st edn. (Allahabad: Premier Publishing Co., 2008)

[3] Black, Sharon K., Telecommunications Law in the Internet Age, (San Francisco: Morgan Kaufmann, 2002)

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1.2 OBJECTIVE OF THE STUDY

A. The primary objective of this study is to examine the variety of intellectual property rights, such as copyright and trademarks, that can be violated in cyberspace, as well asthe frequency of such infringements, and to assess the effectiveness of the legal system in resolving such issues. This investigation will also examine the various forms of intellectualproperty rights that can be violated in cyberspace. The following is a list of additional objectives to pursue:

B. Examine in depth the fundamental aspects of intellectual property rights, the Internet, and information technology in general.

C. Numerous copyright and trademark concerns have emerged in cyberspace as a direct consequence of the internet or the digital era; the purpose of this project is to investigate these issues and report its findings.

D. In order to combat copyright infringement and domain name conflicts in cyberspace, it is essential to examine the various domestic and international legal regimes, as well as the limitations that are associated with each. The only way to resolve these issues is by resolving the domain name conflicts, so this must be the situation.

E. Conduct a study on copyright violations that occur outside of India via the Internet and have a negative effect on the individual in India whose rights are being violated. This studyshould concentrate on violations that take place outside of India.

F. To conduct an exhaustive investigation into the fundamental concepts supporting the handing off remedy for problematic domain names.

G. This article will describe the geographical jurisdictional rights held by courts, tribunals, and other bodies in India that were established pursuant to a variety of acts to address copyright violations and domain name disputes. The purpose of this article is to provide an exhaustive summary of these capabilities.

H. To conduct an analysis of the most recent judicial trends pertaining to the aforementioned topics; to identify and propose practical solutions for copyright infringement in cyberspace,domain name disputes, and patent protection for computer programs; and to do so in a waythat restores the faith of the common man in the legal system of India and in cyberspace.

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1.3 HYPOTHESIS

i. Intellectual property rights, such as copyright, patents, and trademarks, are inextricably intertwined with digital technology, and the current legal system is incapable of effectively addressing intellectual property rights violations that occur in cyberspace. Thefindings of the study, which indicate that the central hypothesis is validated, provide support for this hypothesis. This theory is supported by the study's findings, which will now be reported asfollows.

ii. Additionally, the following hypotheses are connected to this topic in some way:

iii. As a result of the Internet's global nature, it is now substantially more difficult to address violations of intellectual property rights that occur in multiple countries.

iv. Due to the nature of the Internet, the traditional regulations established to address violations of intellectual property rights are insufficient and unsuitable for addressing intellectual property rights violations on the Internet.

v. Because law enforcement agencies lack the required level of technological comprehension, they are unable to regulate Internet-based violations of intellectual property rights effectively. This prevents them from preventing or punishing such crimes.The inability of national governments to concur on a single strategy for addressing infringements of intellectual property rights has severely hampered efforts to defend intellectual property rights on the Internet. Given that the Internet is a global platform,thispresents a challenge.

vi. India's Information Technology Act of 2000 is deficient in numerous ways, preventing it from addressing concerns about intellectual property rights on the internet. This is becausethe law in issue was first codified in India. This accurately describes the current state of affairs in India.

1.4 RESEARCH METHODOLOGY

Due to the fact that this investigation is primarily concerned with doctrinal issues, its methodology necessitated a thorough examination of primary sources. Statutes, judicial decisions, international conventions, and the reports of government-appointed national and international commissions of statutory and non-statutory nature were consulted as primary sources for this study. This investigation focuses primarily on examining the connections between American law and other international legal systems. The overwhelming majority of currently available secondary materials, such as scholarly papers, have been the subject of in- depth research and analysis. In

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addition to national and international law, these articles cover copyright, trademark, domain name, and software. It has been determined that a citation systemis necessary to ensure that the proper credit is given to those who contributed to the material.

1.5 IMPORTANCE OF THE STUDY

The primary contribution of this study is the identification of the variables responsible for intellectual property rights violations in cyberspace. This is the most significant contribution of the study. This achievement enhances the significance of the study, which has the potential to make a substantial contribution to the overall advancement of the field and promises to do so. Given the technological nature of the industry and the paucity of prior legal research, the study contributes to a deeper comprehension of the topic and sheds light on the difficulties encounteredin addressing intellectual property rights violations in the online environment. In addition, the study sheds light on the difficulties of resolving intellectual property rights violations in cyberspace. The results of the study demonstrate the inadequacy of the existing policies for resolving intellectual property issues in cyberspace.

In addition, the findings of the study indicate that the Copyright Act of India does not govern deep linking, hyper-linking, browser caching, proxy caching, or Internet service provider caching. In addition, the provisions of India's Copyright Act do not regulate Internet service provider caching. The report also highlights the difficulties posed by the legal systems and regulations governing domain names. In addition, it indicates that research and development in the area of intellectual property rights is required to strengthen India's extant legal framework forregulating internet use. Notable is the fact that the study will contribute to the establishment of cyber laws and regulatory procedures in the future, which is crucial for the effective protection ofintellectual property rights. The study's findings may be beneficial for policymakers, legalprofessionals, academics, and students who wish to comprehend the regulations and procedures that govern intellectual property rights in cyberspace. In conclusion, it is essential to emphasize that the research was conducted with the intention of making an original academic contribution to the field of law, which is essential to both the success and utility of the study.

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1.6 SCOPE OF THE STUDY

This study will examine the following categories of intellectual property infringement: copyright violations, software patent violations, and trademark violations. In addition to internationalpolicy frameworks and the practical difficulties administrative authorities face when attempting to deal with such intellectual property rights issues in the digital age, the purpose of this paper is to examine how different courts apply intellectual property rights-related legislation. This will be accomplished by analyzing case law from numerous jurisdictions. To achieve this, a comparison and contrast of the various approaches utilized by various courts will be conducted. The subject that was discussed in the section preceding this one will have no relation to the subject that will be discussed in the section following this one.

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CHAPTER 2

INTELLECTUAL PROPERTY RIGHTS AND THE INTERNET: ACONCEPTUAL ANALYSIS

2.1 INTRODUCTION

In this era of information technology, the adage "knowledge is power" is more applicable than ever before. There have been very few major discoveries or incidents throughout history that have had a significant impact on the evolution of humans. The revolution caused by advances in information technology is one of these significant events, comparable to the invention of the steam engine and the wheel. Many people believe that once the full potential of information technology is realized, the world will appear drastically different. Due to advances in information technology, tasks that were previously inconceivable can now be accomplished with relative ease. To access the information stored on a personal computer, a single mouse click is sufficient. In recent years, the revolution in information and technology has significantly increased the value of an organization's intellectual capital. As a direct result, the value of intellectual property and associated rights has skyrocketed, making it imperative that they are protected with the uttermost care. The number of cross-border international transactions has increased in recent years, primarily over the course of the past decade[4]. Frequently, businesses have a presence in more than one country, and they market their goods and services to consumers in a variety of countries and regions. It is of the utmost significance, in the context ofa global economy, to determine and investigate how intellectual property is protected in each jurisdiction. Because of this, the laws regulating intellectual property rights, also known as "IPRs," may vary considerably from one country to another. Due to the vast number of intellectual transactions that occur online, it is imperative that intellectual property rights are protected in the digital domain. The legal frameworks and administrative procedures pertainingto intellectual property (IP) in India become more complex and diverse every year that passes. This is essential for the development of technological innovation, which is essential for the growth of both the economy and society. In both daily life and revered cultural traditions, the pursuance of creative endeavors and the freedom to express oneself are accorded great importance.The more we participate in artistic endeavors, the more our culture is enriched, and

[4] Black, William., The Domain Name System in Edwards and Waelde (eds.),Law and the Internet: A Framework forElectronic Commers , (Oxford: Haert Publishing Co.,2000).

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the more our daily experience is enriched, the more we perceive the interconnectedness of everything. Not onlyare the works of Leonardo da Vinci, Shakespeare, Raja Ravi Verma, and Vishnu Sharma, among others, informative and culturally significant, but they also have the ability to influence people's actions. Due to the impossibility of placing a monetary value on the contributions creative peoplemake to society, artists have always held a unique position in human civilization. It is difficult to place a monetary value on the contributions creative individuals make to society. Originality cannot be purchased or sold, so there is no market for it. The World Wide Web enables quick access to information in the form of text, graphs, or multimedia, and its many services not only facilitate business transactions but also promote the preservation of intellectual property rights. Copyright and trademark restrictions are subject to frequent and consistent revisions in a variety of forms, many of which are direct responses to the rapid development of new technologies. Thisis done in order to discover solutions to the issues that the advancement of technological capabilities has created. Due to the fact that both humans and machines call the digital domain, also known as the cyber world, home, it is theoretically possible for all fundamental human rights,also known as human rights, to interact in this digital setting. Because the cyber world is designedto accommodate both humans and machines inequal proportion, this is the case. Because the online environment provides the same function as their physical residence. In contrast, there is a greater demand for certain digital rights than for others. As a direct result, we are frequently confronted with challenges regarding the actual exercise of these rights by the people who legitimately possess them. The number of cyberspace rights will almost certainly increase in the not-too-distant future as a direct consequence of the Internet and other information technology marvels' increasing prevalence. This is directly attributable to the increasing public's awareness of information technology's extraordinary potential. Considering the current circumstances, there arepresently two liberties that need to be examined. The first protection is known as copy right, and the second protection is known as trademark protection. The purpose of this chapter is to gain a deeper understanding of the technical aspects of cyber intellectual property, which will contributeto a broader comprehension of how intellectual property rights can be protected in cyberspace. This chapter intends to provide a deeper comprehension of how intellectual property rights can be protected incyberspace. Obtaining a deeper understanding of the various strategies that can be employed to defend intellectual property rights in cyberspace is the initial step required to achieve thisobjective.

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2.2 CONCEPT OF INTERNET

The domain that we refer to as the "Internet" is as mysterious as the electronic impulses that comprise this system. Therefore, it is essential to provide a concise explanation of what the Internet is in order to gain an understanding of where intellectual property issues may arise. The two components of the term "internet" are the prefix "inter" and the suffix "net." The prefix "inter" is derived from the Latin word inter, which means "between or among," while "net" alludes to a network. The noun "internet" in the English language is composed of these individual terms. Licklider and Clark elucidated the need for a man–computer symbiosis and proposed an online network architecture that would facilitate human communication.

To be more precise, one of the defining characteristics of the Internet is its capacity to connect individuals from around the globe. The Internet is a communication medium that is not limited by national boundaries. Because the Internet is a global network, individuals from all over the world are able to communicate with one another. Even if users are aware that they are crossing state lines, no one can prevent them from visiting a foreign-based website if they are effective in doing so. Users are able to circumvent state borders without being aware of it. Internet has established a global footprint and is presently involved in the vast majority of activities within itsremit. Tim Berners-Lee's software made it possible for users to locate stored information by entering a singular "world wide web" (WWW) address. A greater number of network providers were able to connect to the internet due to this component of software. This software function was created with the intention of serving both personal and business purposes.

American Civil Liberties Union v. Reno, a case decided in 1996, ruled unequivocally that "the Internet is not a physical or tangible entity, but rather a massive network that interconnects a large number of smaller groups of linked computer Networks." Even in the present day, this concept is frequently used to describe the Internet. This option provides the simplest method for understanding what the Internet is and its function in modern society. This network is connected to a wide variety of other networks as a result of its extensive connection network[5].

Internet is a global network with the ability to communicate with other global networks. It is a digital communication network that connects numerous computer networks and organizational computers in different parts of the globe to facilitate the sharing of information between

[5] Bond, Nicole M., Linking and Framing in the Internet: Liability under Trademark and Copyright Law, (Fall/Winter, 1998)

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individuals. In addition to being a vast global network, the Internet is comprised of tens of thousands of distinct networks that are all interconnected. The term "WWW" is an abbreviation for a specific portion of the internet. The World Wide Web made it possible for humans to maintain their social relationships as a result of the mutually beneficial interaction between humans and computers. This was the result of humans and computers collaborating. With the evolution of the Internet from its first generation to its current state, humans have been able to perform a variety of activities that, depending on the context, can be classified as either typical orunusual. Due to its End-to-End architecture, the current iteration of the Internet, which is comprised of TCP/IP components, is nearly unparalleled in comparison to other types of communication medium.

2.3 DEFINITION OF INTERNET

The increasing difficulty of conveying the Internet is directly attributable to the Internet's expanding cultural impact. In its response to the effects the Internet has had on our society, the Supreme Court of the United States referred to the Internet as a "unique medium known to its consumers as "cyberspace." Cyberspace does not correspond to a specific physical location, and anyone, regardless of physical location, can connect to it. The court referred to cyberspace, which is another term for the internet, when determining the scope of its jurisdiction. Internet is the electronic equivalent of our civilization's nervous system and is largely responsible for the dynamic structure of the world. Internet is the true nervous system of our civilization, and it controls all facets of modern existence. In 1995, the Federal Networking Council of the United States issued the following statement: The term "Internet" refers to the global informationnetwork consisting of the following components: (a) it is logically connected by a globally unique address space based on the Internet Protocol or its subsequent extensions; (b) it enables users to communicate via the World Wide Web; and (c) it is accessible via the World Wide Web.

(d) is able to support communications utilizing the Transmission Control Protocol/Internet Protocol (TCP/IP) suite or any of its subsequent extensions/follow-ups, and/or other IP – compatible protocols.

Simply stated, the Internet is a vast, ever-expanding network of computers located all over the world and interconnected through a variety of pre-Internet communication technologies. In other terms, the Internet is a superhighway for information. To state it succinctly, it is a network that consists of or is comprised of other networks. There is currently no explanation of the internet that is universally accepted, despite the numerous attempts that have been made. Various individuals

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have described the Internet as "a globally networked, computer-supported, computer-accessible, and computer-generated multidimensional artificial or virtual reality." Due to the fact that the Internet is an entirely new jurisdiction, none of the previously established laws and regulations apply to it. This jurisdiction does not exist in the physical universe; it exists only in theory[6]. It is a fictitious location whose boundaries are algorithmically determined by the numberof computer systems and internet networks that are currently connected to or disconnected from the internet. It is a nonexistent location in the actual world. The Worldwide Interconnected Network is referred to as the "Internet," and the term "Internet" refers to this form. It serves as a conduit for the data and information compiled from different regions of the globe and stored on an infinite number of internet-based servers. It is a vast global network of computers that collaborate to exchange information on any topic that would be of interest to people living in different parts of the globe. It is now possible to connect millions of computers, which in turn connects individuals, offices, government agencies, and businesses. In addition, it creates links between a number of academic institutions. American Civil Union v. Reno as a direct result ofthe court's decision in that case. In the context of this discussion, the term "Internet" is defined as follows: "The Internet is not a physical or tangible entity; rather, it is a massive network that interconnects a large number of smaller groups of linked computer networks." This network is connected to a large number of additional networks due to its extensive number of connections. Due to the fact that every network is connected to other networks, which are in turn connected to other networks, every computer on every network can communicate with every computer on everyother network. This is due to the fact that every network is connected to other networks, which areconnected to other networks. Even the smallest supplementary networks are connected to a substantial number of other supplementary networks. The term "the Internet" is frequently used torefer to the global collection of interconnected computer networks and networks that, when combined, form the world wide web. Access to the Education and Research Network, also knownas E.R.NET, which was initially established in the United States as the capability to connect to theInternet, became available for the very first time in India at the start of the year 1990. This facilitywas developed initially in the United States. This novel development took place in the United States of America. It is widely acknowledged that this very second marks the commencement of the Internet era. On October 20, 1997, the government issued a noticeoutlining its internet usage regulations. This notice was issued in the year 1997. A Department ofDefense internal report served as the premise for the

[6] Bouchox, Debord E., Intellectual Property: The Law of Trade Marks, Copyrights, Patents and Trade Secrets, 2 nded.,(Canada: West legal Studies,2000)

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department's most recent announcement, which was supported by thereport. This action was taken to encourage a greater number of people to use the internet, which isthe ultimate objective of this action[7].

2.4 DEFINITION OF CYBERSPACE

Cyberspace is created when an infinite number of computers are networked to exchange data, knowledge, information, and documents. The result is cyberspace. Cyberspace is an artificial environment constructed by humans. Individuals from various regions of the globe are able to connect and communicate with one another in cyberspace by utilizing a wide variety of technical instruments. William Gibson, a science fiction author, was searching for a name in 1984 for his vision of a global computer network that would connect all people, devices, and information sources and through which one could "navigate" as if in a virtual world. His concept involved a network through which one could "travel" as if in a virtual universe. He envisioned a network in which all individuals, devices, and information sources were interconnected. He coined the term "internet" to refer to his concept, and it rapidly gained widespread acceptance. In an attempt to solve this issue, he coined the term "cyberspace" to characterize the international community that exists on the Internet. Because "Internet" can also refer to "Cyberspace," which is defined as "a complex of electronic networks that cross state and national boundaries," "Cyberspace" has become synonymous with "Internet."" "to steer" is the meaning of the ancient Greek verb "kubernao," the root of our current expression "to govern." "to govern" is derived from this verb. The term "cyber," which appears to belong to the field of cybernetics, was carefully chosen as the most appropriate descriptor for this function, as it derives from the Greek verb "kubernao." This was done to ensure the most accurate representation of the function was communicated. Theterm "data navigation" evokes both the concept of traversing a location loaded with dense amounts of electronic data and the concept of control obtained by manipulating that data. In one of William Gibson's novels, for instance, acquiring access to cyberspace and directing computer-controlled helicopters in a new direction results in the helicopters taking a different route. This occurs because, when directed in a different direction, the helicopters take a different route. To achieve this objective with the helicopters, they are instructed to navigate in a particular direction. In the works of William Gibson, cyberspace is not filled with inert data. Instead, its communication

[7] Brad Shherman, and Lionel, Bently., The making of modern Intellectual Property Law, (Cambridge UniversityPress,1999)

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channels are linked to the real world, allowing cyberspace navigators to engage in dynamic interactions with their home worlds' landscapes. However, the term "space" can also be used to refer to a vast array of distinct concepts and principles. A space has a nearly infinitely large extent, which encompasses a vast number of objects that can never be simultaneously known. This is because it is impossible to know all of these factors simultaneously. This is because it is physically impossible to be aware of all of them simultaneously. As a result, it is physically impossible for the human brain to absorb all of these notions simultaneously. This is an accurate description of the existing data compilations in the form of electronic files, such as the internet. Mobility, which can be understood as the capacity to travel between various conditions or locations, is connected to the concept of space. Mobility refers to the capacity to cross state lines or international borders. The third characteristic of a location is its geometry, which represents intangible concepts such as distance, direction, and scale. The Oxford English Dictionary defines "cyberspace" as "the hypothetical environment in which electroniccommunication takes place or virtual reality." Cyberspace incorporates a great deal more thanjust technological advancements in electronic media or the design of user interfaces. Cyberspace is comparable to a metaphysical laboratory due to the fact that it contains both duplicated and virtual environments. Using it, it is possible to investigate how individuals perceive their immediate environment. William Gibson envisions a time in the not-too-distant future when all computer users will collaborate to create a virtual universe.

2.5 CONCEPT OF INFORMATION TECHNOLOGY

It is possible to trace the history of information technology back thousands of years in order to comprehend how it has been used to aid human cognitive processes and communication over time. This has been made possible in part by the evolution of written communication in its many forms. It is one of the industries that is currently expanding at the fastest rate, which is surprisinggiven the precarious condition of the economy at present. Information technology can be definedas "any technology through which we obtain information." It is possible to use the term "information technology" to refer to any of these numerous categories of technology.

2.6 DEVELOPMENT OF INFORMATION TECHNOLOGY

Since the Sumerians of Mesopotamia invented writing around 300 BCE, it has been possible to retain, retrieve, modify, and transmit knowledge. Mesopotamia is commonly considered the

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birthplace of writing in the globe. The abacus, which was utilized in ancient Asia, Egypt, Rome, and Greece, may have been one of the earliest examples of information technology. In 1622, William oughtred is credited with the invention of the side rule, while the German polymath Wilhelm Schickrol is credited with the invention of calculators. William oughtred is responsible for these two revolutionary innovations. The concept for the calculator is attributed to theGerman polymath Wilhelm Schickrol. This is further demonstrated by IBM's development of punch card devices in the early to mid-20th century, which contributed to the definition of the term "information technology[8]."

The term "information technology" was first used in its current sense in a 1958 essay published in "Harvard Business Review." According to Leavitt and Whisler's research, "the new technology does not yet have a single name that is firmly established." From now on, we will refer to this subject as "Information Technology."In a study paper he submitted to the United Kingdom government in 1997, Dennis Stevenson coined the term "Information and Communications Technology," also abbreviated as "ICT." As a consequence of the introduction of new national curriculum documents in the year 2000, the term "national curriculum" gained widespread usage in the United Kingdom around this time.

2.7 XPLANATION OF THE MEANING OF THE WORD 'INFORMATION'

The definition of "information" is "offered or received facts or knowledge." In addition to data, messages, texts, images, audio, voices, codes, computer programs, software, and databases, information can also be found on microfilm or computer-generated microfiche. "information" can also mean "offered or received facts or knowledge." Additionally, you can obtain the contenton microfilm if that is more convenient.

2.8 MEANING OF THE WORD 'TECHNOLOGY'

The term "technology" refers to the creation, modification, application, and knowledge of various tools, machines, techniques, crafts, systems, and organizational methods that are used to solve a problem, improve an existing solution to a problem, achieve a goal, manage an applied input/output relationship, or carry out a specific function. In other words, the utilization of

[8] Bridge's, David Bain., Intellectual Property, 1st edn,(New Delhi : Persom Education Pvt.Ltd.,2003)

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technology to facilitate any of the aforementioned endeavors is not only conceivable, but also probable. In another formulation, the achievement of one of these objectives is contingent upon the application of various forms of technology. This term may also be applied to a collection of such instruments, which may include apparatus, modifications, arrangements, and methods. This collection may also be referred to as an instrument depending on the context. Depending on the circumstances, this collection of objects is sometimes referred to as an instrument. The development of technology has a profound impact on the quality of living available to humans today. The concept can be understood in a more general sense or employed in more specialized contexts, such as the field of information technology. Each interpretation is legitimate. Each interpretation is a valid illustration of the concept in practice. As a result of recent technological advancements such as the printing press, the telephone, and the Internet, people are now able to freely communicate with one another on a global scale. As a result, the number of physical barriers to communication has decreased, and it is now possible for individuals to participate in global activities. On the other hand, the fact that illicit activities can be conducted with the helpof modern technology could be cause for concern.

2.9 MEANING OF THE TERM 'INFORMATION TECHNOLOGY'

The subfield of computer science known as "information technology" (IT) concentrates on the methods of generating, storing, selecting, modifying, and disseminating diverse types of information. This specific subfield of computer science is referred to as "information technology"

The Oxford Dictionary defines "information technology" as "the study or use of computers, telecommunication systems, and other devices for storing, retrieving, and transmitting information." The Information Technology Association of America (ITAA) defines "information technology" as "the study, design, development, implementation, support, or management of computer-based information systems, particularly software applications and computer hardware."

The term "information security" refers to the practice of transforming, storing, protecting, processing, transmitting, and retrieving data in a private and secure manner using electronic computers and software programs on those systems.

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2.10 CONCEPT OF 'INTELLECTUAL PROPERTY RIGHTS'

The origin of the English word "property" can be traced back to the Latin word that literally translates to "one's own." In light of this, we could consider the legal rights that can be formed over the intellectual work of humans to be "intellectual property," and define "intellectualproperty" accordingly. This is one possible definition of the term "intellectual property." This is one possible interpretation of the term "intellectual property." This connotation is associated withthe word because its literal meaning indicates that it should be interpreted in this manner. This endeavor should be supported if it is a human activity that contributes to the economic progress, social development, scientific development, or cultural development of society. Individuals' creative capacity is the most essential factor when it comes to intellectual property-relatedquestions. In the majority of instances, the granting of intellectual property rights is viewed as a form of compensation for the inventive and expert work that went into the creation of an idea. Intellectual property rights are all about recognizing the exact intellectual labor that goes into the development of ideas. They are not so much a form of remuneration for the creation of ideas as they are an acknowledgment of the effort involved. In other words, intellectual property protection does not equate to monetary compensation for the development and implementation ofideas. This is due to the fact that intellectual property rights are a form of recognition for the author of the work in question, which is why they are essential. Intellectual property is the result of mental activity that has the potential to produce something novel. It is directly proportional to the originality and creativity of individuals[9].

The term "intellectual property" refers to both the distinct types of mental works for which property rights are recognized and the legal regimes that regulate them. This expression, "intellectual property," is also used collectively to refer to intellectual property. The term "intellectual property" is interchangeable with a diversity of other phrases. The principles that govern intellectual property apply not only to the production of intellectual or creative works, butalso to their application and commercialization on the market. Intellectual property law examinesthe legal rights associated with creative works, the significance of personal reputation, and the economy. Real estate law is a subfield of property law. The development of this subfield of property law began at the turn of the nineteenth century. The first step in establishing intellectualproperty rights is the incorporation of knowledge into a tangible entity that is capable of duplicating itself in an unlimited number of

[9] Chaubey, R.K., Cyber Crime and Cyber Law, 1st edn. (Kolkata: Kamal Law House, 2008)

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copies in various locations around the world. This step can be completed in numerous methods. It is therefore impossible for unauthorized parties to duplicate the information.

Not only are the underlying concept, idea, and thought the most significant components of the property, but they are also among the most essential. These are the most essential aspects of the property following the actual outcome, labor, and method, etc.

2.11 MEANING AND DEFINITION OF COPYRIGHT

The word "copier" was first recorded in 1586, the same year that the term "copyright" was first published. The exclusive right of an individual to "copy" certain intellectual works he or she has created is known as "copyright." The plural term for "copyright" is "copyrights." This is the most straightforward and concise explanation of intellectual property rights available anywhere. Those who consult Black's Law Dictionary will find the following information regarding the concept of "Copyright": Copyright applies to a work of literary property if it possesses a legally recognized and sanctioned legal right to it under positive law. Positive law recognizes and safeguards the propriety of duplication and publication. Intangible and immaterial right granted to the author or creator of a literary or artistic work in exchange for the work. Depending on the privilege, the author or creator of the work retains the unique and exclusive right to reproduce, publish, and sell copies of the work for a specified period of time. This privilege can last anywhere between one year and forever. The terms "bundle of rights" and "copyright" are frequently used interchangeably in everyday speech. Included in these rights are the exclusive right to reproduce the work in reproductions, the right to create derivative works based on the copyrighted work, and the right to publicly perform or display the work. Occasionally, copyright is referred to as a "bundle of rights." The lawsuit's official title is "M/s. Wadhwa & Co. Private Limited v. Bharat Law House, Messrs." "M/s. Wadhwa & Co. Private Limited" and "Bharat Law House, Messrs." are the parties involved in the case. Copyright is the exclusive right to perform specific acts with regard to a literary work, including works on legal subjects, and to authorize others to perform these acts, as well as the right to prevent others from performing specific acts with regard to a literary work. If the defendant exercises a right granted to him pursuant to an assignment contractwith the right's owner, there will be no violation of this right. Additionally, it is stated that "there will be no infringement of this right if the defendant exercises a right granted to him under an assignment contract with the owner of that right." According to the ruling in this specific case, "copyright is

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the law"

It is not difficult to demonstrate that Associated Electronic is preferable to its competitor, M/s. Sharp Tools. The judge presiding over this case determined that "copyright law is only concerned with the copying of physical material, not the reproduction of ideas, and it does not grant a monopoly over a particular form of words." This statement was made in response to the claim that "copyright law is only concerned with the copying of physical material." "Copyright law is only concerned with the copying of physical materials and not the reproduction of ideas." The term "copyright" refers to the right granted to the owner or licensee to prevent the unauthorized reproduction of culturally significant, informative, or entertaining works. Thissafeguards the actual application of an idea rather than the concept itself. Historically, this awardwas presented in the form of books, plays, paintings, and instrumental compositions by authors, playwrights, artists, and musicians. The victors were provided with these works. Because the definition of "literary work" has been expanded to include computer coding initiatives, code writers can now take advantage of this benefit. This change was directly related to the advancement of technology, which prompted the revision of laws to reflect the new circumstances brought about by this revolution. The exclusive right to replicate or reproduce a copyright-protected work in its entirety or in part in any tangible form is known as the "copyright,"and the term "copyright" refers to this exclusive right. Any physical manifestation may be used to duplicate or reproduce a copy-protected work. This benefit is applicable in a wide variety of contexts and conditions.

2.12 COPYRIGHT FROM GUTENBERG TO THE NEW INFORMATION TECHNOLOGY

It is common practice to attribute the formation of laws safeguarding intellectual property to Johannes Gutenberg's invention of the printing press. Gutenberg is given credit for the invention. The English East India Company was primarily responsible for including India in the scope of the English Copyright Act of 1942, which eventually led to the establishment of copyright restrictions within the Indian legal system. This was accomplished through the activities of the English East India Company in India. The English East India Company was initially responsible for the establishment of these rules and regulations. In 1914, two years after its 1911 revision, the Copyright Act was superseded with an entirely new version. This occurred two years after the modification was made.

The protection was intended for original content and not for ideas; the protection was designed for

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original content and not for ideas; the protection was intended for original content and not forideas; the protection was designed for original content and not for ideas; the protection was intended for original content and not for ideas.

Article 372.1 of the Indian Constitution, which was written at the time of India's independence, mandated adherence to the law by the newly independent nation after India's independence in 1947. Due to this, the law was able to be implemented for an extended period of time following India's independence. The Copyright Act was reinstated in 1957 as part of an effort to modernize and make more accessible the preexisting legal framework. The Copyright Act of 1957 has been in effect in India since 1957, and its purpose is to protect intellectual property rights. The Act was amended five times prior to 2012, once in each of the years 1983, 1984, 1992, and 1999, to bring it into conformity with the numerous national and international regulations in effect at the time[10].

Increased demand for government intervention is directly attributable to the pervasive adoption of cutting-edge technology. At the close of the 20th century, the antiquated legal framework that governed copyright had to be updated to reflect the advancements in information technology. This was required in order to accommodate for these alterations. These modifications were essential. The 1957 Copyright Act will be revised as a direct consequence of the 2010 passage ofthe Copyright (Amendment) Bill. It is interesting to observe that one of the objectives of the Copyright (Amendment) Act of 2010 is to address the problems that the digital world and the internet face. This is one of the bill's objectives. This is one of the measures intended outcomes. This is one of the objectives of the legislation that is presently under consideration. The Copyright (Amendment) Act of 2010 was enacted with the aim of securing legal protection for intellectual property rights in the digital realm. This resolution focuses almost exclusively on the implementation of various anti-piracy measures. The Copyright Amendment Act of 2012 contains enhancements that not only address the challenges posed by the internet, but alsoexceed the minimum requirements for addressing these issues. These alterations are scattered throughout the act. These modifications were necessitated as a result of the fact that the internet imposes greater difficulties than the minimum requirements. The fact that this was the impetus for the changes indicates that the scope of those modifications is substantial. The Trade Related Intellectual Property Agreements (TRIPS), the World Intellectual Property Organization (WIPO), the Bern Convention, and the Universal Copyright Convention all ensure that copyrights granted in a person's home country

[10] Copyright in Digital Era, "Building Evidence for Policy", (Washington DC: National Academic Press).

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extend to consumers in other nations. In these nations, the laws governing intellectual property have been revised to reflect the new realities brought about by the pervasive adoption of information technology. In order to prevent infringement, the vast majority of software items and packages are protected against illicit use due to copyright restrictions.

2.13 MEANING AND DEFINITION OF TRADEMARK

Patents and copyright are two of the most important components of the intellectual property system, which also consists of a number of other essential elements. This system also contains a number of additional vital components. Considered to be one of these essential elements is the trademark. Throughout history, a trademark was initially utilized as a symbol for a product's exclusive marketing strategies. This usage persisted well into the modern era. This usage persisted significantly into the modern era. As a result, a substantial number of customers were attracted to the product due to its uniqueness, which nurtured belief, affection, and interest in the product and the various ways it could be utilized.

According to the definition given by Mark Longman's Dictionary of Contemporary English, a mark is a written or printed symbol or indicator. The databases of additional dictionaries may contain this term. A mark is a specific character that is struck or stamped on a variety of objects to identify the place of manufacture or the manufacturer, or to confirm that the products have been inspected and certified by the proper authorities. Marks serve a multitude of functions. In addition, a mark may be used to indicate that the products have been reviewed and authorized by the appropriate authorities. This may be indicated by the mark's presence. It is not impossible for a single mark to accomplish multiple duties. Any symbol used to indicate something can be considered a mark, as long as it suits the purpose of indicating something. A national symbol used to signify a state's government is one example of something that would fall under this category. A second example would be a landmark that is distinctive to a particular region. Amark can be any type of symbol or sign, a color, or even a scent that identifies the source of a product or service.The purpose of trademarks is to prevent counterfeiting and maintain consumer confidence. According to the definition of intellectual property rights, a trademark is something that can be used to identify the source of the product or service in question. The statute governing trademarksin India includes a provision that provides a comprehensive and all-encompassing definition of themark. According to the information in this passage, a "mark includes a device, brand, heading, label,

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ticket, name, signature, word, letter, numeral, shape of goods, packaging or combination ofcolors or any combination thereof" could be considered a mark. A trademark is a mark that is affixed to products with the intention of indicating or conveying a business relationship between the items and the owner of the right to use that mark. The term "trademark" refers to an affixed mark on products. The United States Patent and Trademark Office (USPTO) oversees the registration of trademarks. Marks, images, and designs,in addition to the overall packaging and presentation of the products, distinguish one retailerfrom another, and their use results in monopolistic behavior. Utilizing trademarks is a typical aspect of monopolistic business practices.Anyone who uses these markings, images, etc. in a manner that is likely to confuse customers in order to steal business from the original user maybe liable for damages and an injunction for passing off his or her products as those of the other trader for passing off his or her products as those of the other trader. Whoever does so will be deemed to be passing off his or her products as those of the other dealer, which is a violation of passing off. This is due to the fact that anyone who does so will be deemed to be passing off his or her products as those of the other trader. The term trademark has been defined by the Trade Marks Act, 1999 which provides that, "trade mark means a mark capable of being represented graphically and which is capable of distinguishing the goods or services of one person from thoseof others and may include shape of goods, their packaging and combination of colors; and

(i) in relation to Chapter XII (other than section 107), a registered trade mark or a mark used in relation to goods or services for the purpose of indicating or so as to indicate a connection in the course of trade between the goods or services, as the case may be, and some person having the right as proprietor to use the mark; and (ii) in relation to other provisions of this Act, a mark used or proposed to be used in relation to goods or services for the purpose of indicating or so to indicate a connection in the course of trade between the goods or services, as the case may be, and some person having the right, either as proprietor or by way of permitted user, to use the mark whether with or without any indication of the identity of that person, and includes a certification trade mark or collective mark".Marks can be a device, a trademark, a heading, a label, a ticket, a name or signature, a phrase, a letter, a number, the design of products or packaging, or any combination of these[11], a color combination, or one of these colors combined as you see fit. Depending on the context, "name" can refer to a number of various abbreviations of a given name. The term "goods" refers to all products that can be purchased and sold for profit, as well as those that can be

[11] Cornish and Llewelyn, Intellectual Property: Patent, Copyright, Trade Marks and Allied Rights, 6 th edn., (London: Sweet and Maxwell Ltd., 2007)

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manufactured for use in a business context. The package contains any form of cases, boxes, containers, coverings, folders, receptacles, vessels, coffins, bottles, wraps, labels, bands, tickets, reels, frames, capsules, caps, closures, stoppers, and corks. The Act equates "trademark" to "collective mark" and "certified trademark." These phrases are considered "trademarks" within their respective industry. The definition of "trademark" pertinent to Chapter XII of the Act, which addresses trademark-related violations, differs from the definition applicable to the remainder of the Act. In Chapter XII, the various ways trademarks can be violated are discussed. The first potential outcome does not contain any references to "proposed to be used," "permitted user," with or without evidence of the identification of that individual, as well as registered trademarks or collective marks. This holds true regardless of the terminology employed. The significance of this remark will become crystal clear after trademarkinfringement characteristics are discussed.

2.14 Concept of Domain Name Systems

Domain names are the titles of websites and various other categories of online properties on the Internet. They contribute an enormous quantity of value to the company in numerous ways. Inthe context of the Internet, trademarks and domain names attain identical goals. Domain names perform the same function as trademarks when it comes to informing consumers about the origin and quality of the products and services they purchase in the real world. Trademarks are however only legitimate in the physical world. Each of these regionally distinct networks consists of millions of "host" devices. The most important requirement for two computers to successfully communicate with one another is that they can perceive each other. Therefore, Internet users who wish to connect to a computer that is already connected to the Internet must have a fixed address in order to establish the connection and gain access to the other computer's services. Because the Internet employs IP addresses, this is the case. The purpose of this criterion is to facilitate Internet-based communication between individuals. It was immediately apparent that identities are preferred over numbers in human communication. Despite the fact that numerical addresses are a suitable method of communication for computers, this is the case. Despite the fact that thereare a number of benefits to using numerical addresses, this situation arose. In addition toreceiving an IP address, each computer connected to the internet now also has a name, as a resultof a system designed to meet this need. Over time, a rational, ambiguity-free global naming system known as the "domain name system" (DNS) was developed. Each Internet-connected device is allocated a name derived from this hierarchically organized structure.

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2.14.1 Meaning and Definition of Domain names

Presently, domain names play a crucial role in facilitating the expansion of the Internet. The introduction of domain names has increased the prospective worth of this capacity. This is largely due to the fact that businesses can now take advantage of the Internet's potential as an information superhighway. A domain name is the Internet equivalent of a phone number or physical address, and it serves the same purpose. It is the linguistic representation of our Internet Protocol (IP) addresses.As part of an Internet-based electronic address, a domain name is any alphanumeric identifier that is registered with or assigned by a domain name registrar, domain name registry, or any other institution responsible for the registration of domain names. Domain names are also referred to as Internet protocol (IP) addresses. Any website may, if its owner so desires, include a domain name in its Internet address. The dictionary defines a domain name as "an address of a computer network connection." This address is described as "a string of alphanumeric characters separated by periods." This is illustrated by the website www.YAHOO.COM, for instance. It is possible to identify the owner of the address using this string sequence. In the address bar of a web browser, the Internet Protocol (IP) address of a websitecan be discovered by entering the website's domain name. The software will automatically convertthe domain name to the IP address. To visit a website, you must have an Internet address, and theonly way to obtain an Internet address is by using a domain name. "any alphanumeric designation,"as defined in Section 45 of the Lanham Act, "which is registered with or assigned by any domainname registrar, Domain name registry, or other domain name Registration authority as part of an electronic address on the Internet." "every domain name registrar," as defined by Section 45 of theLanham Act. "any other domain name registration authority." Section 45 of the Lanham Act accepts both "any domain name registrar" and "any other Domain Name Registration authority" as definitions. It has been established that no Indian statute provides such a definition; therefore, it is reasonable to expect that the Indian Courts will apply the definition that reflects the Internet user community's common comprehension of the domain name. This is owing to the fact that no Indian statute containing such a term was discovered. The value of domain name ownership is determined by the ability to provide a unique and exclusive identifier for an individual, product, service, or organization. This value is transferable to others. This can be used as a domain name identifier. No two Internet Protocol(IP) addresses will ever be identical anywhere in the globe, regardless of where a user connectsto the internet. This characteristic is exemplified by the domain name's "Universal Resolvability" property, which serves as a distinguishing characteristic. In accordance with prior judicial precedent, the legal definition of domain name has been expanded,and this expansion has

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been upheld throughout this process. Given this information, the circumstance could be described as follows: In contrast to the requirement that a common addressbe dependent on location, a candidate may use their own web address if it is not already associatedwith the name of another address.

(ii) It is simple to determine a website's address because, in order to visit a company's website, one must first enter the company's name[12].

Due to this, a domain name is not the same as an ordinary address; rather, it is a sign that indicates the location of the products and services for sale, similar to the window display of a store. When a domain has attained its maximum potential, it will have developed characteristics that indicate its status as an industrial property. In addition to being used for conducting business, identifying companies, and obtaining access to information, a domain name, which was essentially a computer's Internet address, was also used for these functions. These are some ofthe varied applications of domain domains.

2.14.2 Development of Domain Name Systems-

The Federal Government of the United States of America constructed the Advanced Research Projects Agency Network, more commonly known as ARPANet, in the late 1950s as an attempt related to communication that was relatively inconsequential. Only highly qualified specialists in computer science, engineering, and science were granted access to the ARPANet during this time period. Even those who contributed to the development of the Internet must be surprised by its meteoric rise in prominence. The first version of the ARPANet, consisting of four host processors, was constructed at the end of 1969. Following that, work on expanding the Internet commenced. In the years that followed, the ARPANet was rapidly connected to an increasing number of computers. Concurrently, efforts were made to complete the development of a Host- to-Host protocol that was completely functional in every way. In December of 1970, the Network Working Group (NWG) effectively completed development of the first ARPANet Host to Host protocol. This protocol was designated by its acronym, NCP (which stood for Network Control Protocol).The Defense Advanced Research Projects Agency (ADRPA) of the United States of America initiated a research program in 1972 to investigate various approaches and technologies

[12] Cornish, W.R., Intellectual Property, 3rd edn, (Delhi :Universal Publishing Co.Pvt.Ltd., 2001

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for interconnecting diverse packet networks. The application's title was "Interlinking Packet Networks of Various Types." The name of the program was "Interlinking Packet Networks of Various Types." The research effort that ultimately led to the developmentof the Internet was referred to as the "Internet Project," and the resulting networked system was simply referred to as "the Internet." DARPA transferred responsibility for the ARPANet to the Defense Communications Agency in 1975 so as to expedite the network's transition into operational status. In the subsequent year, 1979, the USENET network was first established. By 1983, a significant component of the research and development departments and operational organizations of the armed forces were utilizing the ARPANet. In response to the swiftlyexpandingsize of the host database, the Domain Name System was implemented for the veryfirst time in 1984. The Domain Name System was created so that a large number of computers could distributethe database more readily. This was the impetus for its creation. In 1986, the National Science Foundation (NSF) of the United States of America, the predecessor of the current National ScienceFoundation Network (NSFNet), began constructing its network. In a very short period of time, NSFNet has become one of the most essential communication services that support the Internet's infrastructure. Using CSNET protocols, Germany and China established a connection for electronic correspondence (email) in 1987; the first message from China was delivered on September 20, 1987. Germany and China were the first two nations to establish this connection in1987. In 1990, the NSFNet assumed responsibility for the ARPANet,and world.std.com became the first website to connect every country, territory, and continent to the internet. As a direct consequence, NSFNet established itself as the very first commercial provider of dial-up Internet access. Using this network, more than four thousand educational and research institutions from allover the world were interconnected. In 1992, the United States Congress gave the National ScienceFoundation the legal authority to permit commercial operations on NSFNET[13]. National Science Foundation Network (NSFNet) and commercial Internet Service Providers (ISPs) initially interconnected to pave the way for the development of the Internet as we know it today. During 1991–1992, the National Science Foundation (NSF) assumed responsibility for organizing and supervising non-military Internet use. This obligation remained in effect until the year 2005. It informed potential infrastructure service providers that they could submit proposals to compete. The National Science Foundation and Network Solutions, Inc. (NSI) signed a contract on December 31, 1992, which granted NSI the authorityto oversee the registration, coordination, andmaintenance of the system that would eventually become the Internet domain name space. The United States Patent and

[13] Dr. Kankanala, Kalyan C., Fun IP ,The Fundamentals of I.P (Bangalore: Brain League IP Service, 2012)

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Trademark Office has ratified this agreement. The participants have both signed this agreement.The preponderance of the Internet's most popular top-level domains, including.com,.org, and.net, were registered by NSI. Every component of hardware that connects to the Internet is assigned a unique Internet Protocol address, also known as an IP address.The Internet Assigned Numbers Authority (IANA)is responsible for the global distribution of number ranges to regional Internet Protocol (IP) registries. ARIN in North America, RIPE in Europe, and APNIC in the Asia-Pacific region are a few examples of these registries. These are the Internet addresses assigned to devices for identification purposes.These registries accept requests from Internet Service Providers for IP address blocks and then distribute those blocks to other Internet Service Providers and end users. There are three levels within the Domain Name Space: the computer level, the second level domainlevel, and the top level domain level.

On February 4, 1997, the International Ad Hoc Committee (IHC) issued its final report on the administration of the Domain Name System (DNS). The administration of the Domain Name System has been the subject of numerous creative discussions around the globe, and this paper represents the conclusion of those discussions. This study focuses on the administration and maintenance of generic top-level domains (gTLDs) and contains ideas in this regard.The objective of the proposals was to simplify the administration and operation of the gTLDs and to achieve the optimal equilibrium between ongoing expansion, commercial potential, stable operations, and legal obstacles. Moreover, the recommendations sought to simplify the administration and operation of the gTLDs. The simplification of the administration and operation of the gTLDs made this feasible. Bill Clinton proposed privatizing the Domain Name System (DNS) on July 1, 1997, while he was still president of the United States, in order to increase competition and allow international participation in the management of the system. Thisrecommendation was made to the United States Secretary of Commerce. On 2 July 1997, the United States Department of Commerce issued a call for comments regarding the administration of the Domain Name System (DNS). This action was taken in response to the issue. In this particular paper, comments were solicited on a number of significant issues. These included the creation of new top-level domains (TLDs), suggestions for domain name registrars, concerns regarding intellectual property, and trademark issues in particular. National Telecommunications and Information Administration[14] (NTIA), an agency of the United States Department of Commerce, presented for discussion A Proposal to

[14] Dr. Rattan, Jyoti., Cyber Laws & Information Technology, 4th edn, (New Delhi: Bharat Law House Pvt.Ltd.,2014)

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Improve the Technical Management of Internet Names and Addresses on January 30, 1998, after receiving the final comments. The entirepublic was given the opportunity to comment on the proposal. The National Telecommunicationsand Information Administration (NTIA) published its Statement of Policy on the Management of Internet Names and Addresses on June 5, 1998, following the conclusion of the public comment period. In response to the fact that the period for receiving public remarkshad ended, this action was taken.The White Paper reaffirmed the Green Paper's request for the establishment of a new private, non-profit organization responsible for organizing certain NNS services for the benefit ofthe Internet as a whole.

2.15 CONCLUSION

Due to the fact that we are currently living in the so-called "information age," the application of information technology has become an integral part of our daily lives. As a result, the entire planet has become a "global village" due to the internet's ability to connect individuals from all over the world. Nobody genuinely owns the Internet, and neither a single individual nor a single entity has complete authority over it as an entity. The expansion of the value of an individual's intellectual property is directly attributable to the development of information technology. Examples of intellectual property include internet-accessible information in the form of computer software, trade secrets, literary works such as writing, novels, and journals, andcreative works such as paintings, photographs, and sound recordings. Also included in intellectual property are literary works, novels, and journals. Therefore, digitally stored information must be protected by intellectual property rights. When it comes to the preservation of intellectual property rights in cyberspace, concerns regarding copyright and trademarks receive the most attention. Internet-based disputes have no bearing on the traditional interpretations of copyright and trademark statutes, both of which have little relevance to internet-based disputes. Regarding the protection of intellectual property rights in cyberspace, a comprehension of the technological components of cyber intellectual property can be of great assistance. It is essential to increase public awareness of intellectual property rights in cyberspace, which necessitates the preservation of these rights against potential intrusions. It is necessary to raise public awareness of intellectual property rights in cyberspace. Therefore, it is of the utmost importance to educate oneself on the laws governing copyright and trademarks in relation to the vast number of online works[15].According to previous research, the new digital environment, which is characterized by the ease with which copyrighted

[15] Dr. Roy, S.C., Intellectual Property Rights A Prismatic View, 1st edn ,(New Delhi :Radha Publications, 2014)

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content can be replicated,is the primary cause of the evolution of the laws that regulate intellectual property in many countries. This is a direct result of the advent of the digital age. Copyright regulations mustprotectthe motivation of authors to create new works while ensuring fair use of works in the context of new technologies. This can be achieved by assuring equitable utilization of works. When a work of art is utilized in its digital form, there is a high likelihood that this will lead to the production of numerous replicas that could be construed as an infringement of intellectual property rights. Additionally, the deed of copying can occur in a variety of nations. In spite of this, it is impossibleto ignore their importance because the laws in question have been modified to meet the needs of the system, primarily as a result of the court's innovation. This implies that their significance cannot be wholly discounted. The Copyright (Amendment) Bill of 2010 and the Copyright (Amendment) Act of 2012 were enacted in India in an effort to modernize the country's copyrightlaws and bring them in line with the swiftly evolving digital landscape. To accomplish this objective, copyright protection is being incorporated into digital technology and the Internet, and anti-circumvention laws are being strictly enforced under Indian law. In the areaof trademark infringement, India's legal system has a long way to go before it can effectively resolve the obstacles posed by meta tags, linking, and framing, not to mention any new issuesthat may arise as the internet evolves. Nonetheless, both international and national forums have been establishedto resolve domain name disputes. Even though there is no system in place to supervise and preventthe registration of domain names that violate the rights of a trademark owner, forums for the resolution of domain name complaints have been established.

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CHAPTER 3

COPYRIGHT ISSUES IN THE DIGITAL WORLD

3.1 INTRODUCTION

Digitally stored information can be accessed quickly and easily from any location on the planet, copied for archival purposes without error, stored in a compact manner, and searched for rapidly. The proliferation of new technologies, including networks, digital libraries, electronicpublishing, software advancements, satellite communication, and wireless technologies, among others, is putting copyright laws to the test in significant ways. In accordance with the provisionsof the Copyright Act of 1957, intellectual property rights may be protected for "original" expressions, but not for concepts, if the expression in question fulfills the criteria for being considered "original." Copyright protects literary works, theatrical works, creative works, sound recordings, and cinematograph films, among other types of works. Copyright monopoly rights include reproduction, distribution, public communication, public performance, translation, adaptation, and incorporation of literary and other works into sound recordings andcinematograph films. Only copyright proprietors are permitted to utilize these privileges. The Copyright Act of 1957 provides the proprietor with the right to seek redress in order to assert his legal rights. This privilege enables the owner to safeguard his legal interests. In the creative arts, the accumulation of new information has led to the emergence of innovative modalities of creativeexpression. Along with the rest of the creative industries, these modes of expression are now protected by copyright laws. The protection of intellectual property in a digital setting presents copyright law's fundamental concepts with an ever-changing set of new challenges. Oneof these is the Internet-facilitated infringement of intellectual property rights. The enactment of laws is a response to a social, economic, or technological dilemma. This overarching concept does not qualify for an exemption under copyright law. Patent protection and copyright protection are bothbased on the notion that "the public benefits from the creative activities of authors and that the copyright monopoly is a necessary condition for such creative activities." Patent protection guarantees the continuation of copyright monopolies, while copyright protection ensures the continuation of patent protection. It has come to light that the Indian Copyright Act does not adequately address a substantial portion of the current concerns[16].

[16] Dr. Vikraman Nair, K., Copyright Law: Emerging Trends and Challenges,1st edn, (Kerala: School of IndianLegal Thought, 2001)

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3.2 COPYRIGHT ISSUES IN CYBERSPACE

The Internet provides numerous opportunities for the creation and reproduction of artistic and literary works. Due to the ease with which content can be transmitted from creator to spectator and then from viewer to viewer, the internet is an ideal platform for authors and painters to use to disseminate their work. Additionally, technology enables any of these observers to edit, alter, distort, or distribute an original work without the creator's permission. The combination of the Internet and various digital technologies creates what is referred to as a "digital dilemma" for copyright laws. Due to the ubiquitous availability of the internet, individuals can now disseminate their digital creations around the globe at the speed of light. The development of digital technology has enabled the creation of an infinite number of flawless digital duplicates, including copies of music, books, and videos. The emergence of digitization on the Internet givesthe concept of copyright in its entirety a new dimension. The copies can then be distributed to potentially millions of individuals in a matter of seconds. Paul Goldstein argues that the extent ofcopyright protection should be expanded "into every corner where consumers derive value from literary or artistic works." The possession of copyright was a prerequisite for the establishment offinancial incentives for the production and dissemination of works. The rights of authors, publishers, and the general public were largely in accord prior to the advent of the internet because it was costly to provide content access to the general public. This was because the internetmade it simpler to provide the general public with access to content. This was true regardless of whether content producers required financial incentives to create their works or whether content distributors required financial incentives to make the necessary investments to distribute those works to the general public. To produce their respective works, content creators and content distributors needed financial incentives. The copyright laws have merged the rights of authors anddistributors into one category. Due to the substantial financial burden imposed by the high costs of duplication and dissemination, this is the case. Uncertain is the answer to the query of what willoccur if individuals use cyberspace to reproduce and distribute copies of their own works. Emerging trends in the digital sphere include the unethical practice of peer-to-peer file sharing andunwarranted monitoring on YouTube and other social networking websites. Thisillustrates the importance of copyright restrictions and moral rights in the digital realm. The fact that the virtualworld is not constrained by physical locations simplifies the process of altering data. As a direct result, behavior that is considered "normal" in the online world may be deemed illegal in the offlineworld[17]. In this era of

[17] Edenborough Michae, Intellectual Property Law, (Great Britain, Cavendish Publishing Limited,1997)

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digital technology, there are three primary concerns regarding copyright, which can be categorized as follows:

(i) Issues concerning an entirely new class of works, such as computer programs, databases, and multimedia works; (ii) Issues concerning the reproduction of a work for the general public utilizing digital media; and (iii) Issues concerning the management and administration of copyright in the digital environment. As the case Religious Technology Centre v. Netcom OnlineCommunication Services Inc. so ably demonstrated, the Internet may as well not exist even if it appears to be available everywhere.

Due to the proliferation of the Internet, intellectual property infringement is now a stealthier and more concealed activity than in the past. Due to the widespread availability of the internet on consumer electronics such as personal computers and even mobile devices, it is presently exceedingly difficult to put a stop to illegal activities. Creators of content on the internet that is protected by intellectual property rights face a variety of obstacles. Unquestionably, the regulation of content on the internet is one of the most essential. Infringement occurs when a person: (a) Knowingly facilitates the unauthorized use of another's copyrighted work; (b) Derives commercial benefit from an activity involving the use of another's copyrighted work; and (c) Exercises any rights that only the owner of copyright may exercise. The Copyright Act defines infringement as the unauthorized use of another person's copyrighted work. There are numerous types of intellectual property theft, including infringement.

As a result, a copyright is only violated when a third party commits one of a number of potentially illicit acts, such as duplicating the work in any tangible form, including storing it on any medium through technological means, which is the owner's sole and unalienable right. Thus, copyright infringement can only occur when a third party engages in one of a number of potentially unlawful activities. If a person's work is digitalized without their permission, their rights have been violated, as this constitutes an infringement of the author's copyright. Because the Internet is a global network for the transmission and copying of information, it creates an unfathomably large number of opportunities for the violation of intellectual property rights and a vast number of obstacles for the enforcement of intellectual property laws. The proliferation of information technology has resulted in numerous new intellectual property rights violations in cyberspace, including the following:

Copyright violations include catching and proxy catching, linking, framing, uploading and downloading copyright-protected content, and catching and proxy catching. catching and proxy

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catching are both illegal.

Reproductions created utilizing random access memory (f); formal digital licenses (g); musical (audio) rights (h); and musical rights (i). A search engine whose solitary function is to locate additional search engines.

Following is a study that analyzes potential intellectual property infringements that may result from activities such as capturing, linking, framing and in-linking, mirroring, downloading, uploading, and scanning. In addition, an explanation of how the Indian Copyright Act of 1957 can be utilized to address these issues is provided.

3.2.1 Catching and Proxy Caching

A cache is a computer, typically a server, that retains copies of information (such as links to the most visited Web pages) so that users can access the information without having to repeatedly reconnect to the server from which it originated. Caches enable users to access the information without having to perform the aforementioned steps. For instance, a cache may contain URLs to the 10 most visited websites on the Internet. Caching is the process of storing duplicates of content that has been downloaded from its original source site for later use. This procedure is performed with the intent of using the content subsequently. This information is stored in a location that the user can access more readily regardless of their current physical location. The term "mirroring" can refer to either the automatic process of writing data on two disks simultaneously, which is known as "mirroring," or the process of storing an entire website or other comprehensive compilation of data, which are also known as "mirroring[18]. The purpose of replication is to provide data redundancy and backup, as well as to permit a large number of concurrent accesses and uninterrupted access. Random access memory, also known as RAM, isa storage reservoir housed within a computer's central processing unit (CPU). The buffer is responsible for the computer's ability to temporarily retain data in RAM. This not only increases the speed at which information can be retrieved, but also improves the overall efficiency of the computer. The purpose of caching on a network is to reduce network traffic and enhance the speed at which previously accessible content can be retrieved. Local caching occurs in the random access memory (RAM) or hard drives of the users, whereas proxy caching is managed entirely by the servers. Caching is unquestionably beneficial to the efficient operation of computers within the context of the Internet as a whole;

[18] Fitzgerald, P.J., Salmond on Jurisprudence, 12th edn. (Delhi: Universal Law Publishing Co. Pvt. Ltd., 1966).

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however, this advantage comes at the expense of the continued storage of an unauthorized copy of the work. Caching contributes to theefficient operation of computers across the Internet. In a broad sense, cached content can be stored in one of the following three ways: (i) at a location that is physically closer to the user; (ii)on a computer with a greater processing capacity; or (iii) on a computer that is located along a path that is less likely to experience congestion.

Proxy capturing is when a user's service provider stores a copy of a website on their server to facilitate faster access to a particular page the next time one of their customers attempts to view the website. Numerous users indulge in the practice of "catching" proxies. As a result, the service provider is now able to offer its consumers a more enjoyable experience. When an author's work, in this case the website, is duplicated multiple times, the author's rights may be violated. This is due to the fact that the website is considered the author's "work." Because caching involves copying a substantial portion of a copy-protected work, it would appear that a license from the work's owner is required to prevent accusations of infringing on their intellectual property rights. This is due to the fact that caching entails duplicating a substantial portion of a copy-protected work. Due to the fact that caching is not explicitly necessary for users, it is possible that no license can be inferred from the terms. Even though caching is advantageous for users, it is possible that no permission can be inferred from the evidence. In the case of field v. Google, it was determined as a response to Google's claim that it has the right to engage in fair use that the cache that Google maintains serves a different purpose than the original. This decision was madein light of the fact that Google asserted its right to indulge in fair use in response to Google's assertion. This decision was a response to Google's argument regarding the appropriate use of content[19].The court stressed the transformative use factor as a determining component of Google's fair usage and came to the conclusion that the caching techniques used by the corporation exhibit a transformative quality. This feature gives users access to the document in the case that the original version of the document is not available. The Internet is a wide network of computers that makes it easy to access content such as text, graphics, audio, and video, amongother types of media. The adjudicator came to the conclusion that the cache was used for avariety of reasons relating to transformation. In the case that users are unable to view the document due to the absence of the original file, this function will enable access to the file. The judge came to the conclusion that the cache served a variety of goals that were both transformational and helpful to society.Caching, regardless of its legal

[19] Ganguli, Prabuddha, Intellectual Property Rights-Unleashing the Knowledge Economy, (New Delhi:TataMcGraw Hill, 2001)

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standing, makes it easierto duplicate entire websites, which raises obvious copyright concerns. Copyright infringements are clear. As a direct result of this, illegal content may have been deleted from the primary website, but it is possible that it is still present in the cache. This indicates that the owner of the website as well as the person responsible for administering the cache may still be held liable for any infringement-related measures that are taken.

3.2.2 Linking, Hyperlink and Framing

A link is a connection that can be established between the contents of two separate files or even between different sections of the same file. Tags are used to generate hypertext links containing embedded instructions that lead to a separate website. On a website, a link is an intentional connection between two words, images, or other information objects. When the user clicks on a link, another file is immediately downloaded and displayed. Text or images that contain links are typically highlighted, italicized, or otherwise brought to the foreground. In fact, links are responsible for the web-like structure of the World Wide Web. Links facilitate access to information that would ordinarily require substantial time and effort to find. Two distinct forms of linkage exist:

a) Surface connection: When the homepage of a website is linked to another page on the same domain, this type of linking is present.

b) Deep linking is a type of linking in which a link does not lead to the homepage of the linked site, but rather to an internal page within the linked site. URLs are not protected by intellectual property laws, similar to street addresses. However, hyper linking technology has the potential to facilitate the dissemination of the creative work of others. The link between two hypertext documents is referred to as a "hyperlink." HTML is the language used to construct web pages, and browser software automatically translates it into English.HTTP enables a website to belinked to another website even if the owner of the linked website is oblivious of the link or refuses permission. When perusing a website, you may come across a page with a link[20]. The hypertext link in question is typically a highlighted or underlined word or phrase that, when selected, directs the reader to a different document or website. To be more specific, the followingare examples of this type of linkage:

(i) it is misleading (for example, by 'framing' someone else's content so that it appears on-screen

[20] Goldstein, Paul., Copyright, Patent, Trademark and Related State Doctrines, 5 th edn,. (New York: Foundation Press, 2002)

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as your own, when in fact it is from a hypertext linked site with no connection to your site); (ii) it is defamatory; or (iii) it facilitates copying in circumstances where a license permitting such copying cannot be implied from the copyright owner? A search engine, for instance, may inadvertently send a link to a website that violates an intellectual property right despite taking all reasonable precautions to prevent this from occurring[21]

It is possible to link an image located on a local website to an image located on an external website so that it can be incorporated into the current presentation. In contrast to hypertext links, which abruptly terminate the connection between the local site and the external site when an integrated image is displayed, the connection between the local site and the external site is maintained. Due to the consistency with which the URL is formatted, the user may be oblivious that the image being linked to originates from a different source than the website being accessed. It was determined that simply linking to the photographs violated the display right owned by the copyright holder, so the link was removed. Ticketmaster Corporation, the plaintiff in Ticketmaster Corporation v. Microsoft Corporation, filed a lawsuit against Microsoft Corporation for connecting without authorization to a page deep within its own website, rather than to its homepage. The Ticketmaster Corporation alleged, among other things, that Microsoft diverted advertising revenue that was intended for the plaintiff to themselves. In addition,Ticketmaster Corporation had engaged into agreements with a number of other companies in which they agreed to pay a fee in exchange for a link to the Ticketmaster website. Thesecontracts existed prior to Ticketmaster Corporation's acquisition of the aforementioned entities. Microsoft's gratis linking to the plaintiff's website may have diminished the value of these contractual relationships. This is a matter that requires investigation. The presence of this free link hinders Ticketmaster's ability to be flexible in the design of its website, as well as in its marketing efforts and relationships with other websites. During the course of the court proceedings, the parties were able to reach a settlement agreement. Microsoft has confirmed that it will not link to any concealed pages or content on Ticketmaster's website. In addition, the parties agreed that consumers interested in purchasing tickets would be directed to the ticketing company's homepage. This clause was included in the agreement. This matter was debated in theEnglish court proceeding Shetland times Ltd. v. Wills. In this particular instance, one of the two online newspapers had provided a link (also known as a hyperlink) to the various storiespublished in the other newspaper without the permission of the other newspaper's owner. Consequently, it is now very easy for people who read

[21] Gopalkrishnan and Agita, Principles of Intellectual Property 1 st ed., (Lucknow: Eastern Book Company (P) Ltd.,2009).

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the news online to access stories published on other websites; all they need to do is "click" their computer mouse. In addition, the manufactured headlines and URLs were identical to those of another website. It was determined that merely "linking" to another website does not violate intellectual property rights. Regardless of any copyright restrictions that may exist, there is no barrier preventing site proprietors from allowing people to link to their content. This is the case because no such barrier exists. It is highly unlikely that the developer of a website, regardless of whether it was created for academic, commercial, or personal reasons, would not want their site to be viewed by visitors. It has been argued that internet content pertains to the public domain because the author of the workin question posted it online with the intention of making it freely available to anyone. The proprietor of copyrighted information must obtain permission (in the form of a written document)before the material can be downloaded or replicated. Therefore, it is disputed whetherthe unlimitedreproduction of content on the Internet constitutes a violation of copyright. This occurs when the content of one website is displayed directly on another website, or when the content of another website is improperly integrated into the first website. For instance, images and banners from external websites may be incorporated on the website serving as the host. It is conceivable that secondary responsibility will become an issue if a link is provided to a website that hosts content that violates intellectual property rights. Microsoft has been sued by Ticketmaster for linking the Sidewalk Seattle website to the order form page situated on the Ticketmaster website. The court determined that Microsoft's link should be removed because it unjustly evaded advertising and marketing, represented trademark dilution, and constituted deceptive advertising. In addition, the court determined that it constitutes dilution of a trademark.Ticketmaster filed this lawsuit on the grounds that connecting unintentionally circumvented paying for marketing and advertising[22]. A website 'A' that links to another website would violate the right to exhibit, distribution, and reproduction.

3.2.3 In-line linking

In-linking, also known as "In-line linking," is a technique that enables a single Web page to construct a new Web page by incorporating elements from multiple other Web sites or servers. This method is also referred to as "in-line linking." The elements are linked by "pulling in" graphic or image files from another website and displaying them on the composite Web page, as opposed to transmitting them. Instead of transferring the elements to the composite page, this is done. This

[22] Hilliard David C., Trademarks and Unfair Competition, 7 th edn., (San Francisco: Matthew Bender & Company,Inc., 2008).

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technique is utilized instead of the conventional method for duplicating page elements. As a result, the composite page would consist of multiple connections to a vast array ofwebsites and servers. While navigating the composite page, the user is provided with instructionson how to obtain the images, illustrations, and other media from their respective original sources.These instructions are accessible via the navigation bar at the page's top.

3.2.4 Framing

Web browsers make it possible for web designers to create "frames" that separate distinct web pages. A website may contain one or more frames, each of which is a customizable window that allows users to view pages from other sites. There is a possibility of violating the right to public exhibition or the right to public performance when framing is employed. This is due to the fact that the web page will be divided into multiple sections, with each section utilizing HTML code to retrieve content from a different source. This is because the website will be separated into numerous sections. In a similar vein, it could make reference to the sponsorship, which could lead to confusion, error, or deception, or even dilute the value of the trademark. Given that a website can "call" the contents of a frame from a distinct location, a programmer with the appropriate permissions can "frame" the content of another website beneath his or her own navigation or banners. This is feasible because a website can call the contents of a frame from a separate location, allowing it to display this content. Consequently, he is permitted to use the creative content of another company on his website while also selling banner advertisements. A common illustration of the use of frames is the placement of a selection menu in one frame and the files that have been selected (and connected) in another frame. This application of frames is fairly typical. The concept of framing can be viewed as an additional type of dynamic connectionsimilar to inline linkage. It enables the web designer to combine or draw in an external website inits entirety or in parts and encircle them with frames that they have created themselves. The result is the same as if you had used the inline method; the URL of the remote website is not altered, and it continues to appear to be a part of the local website. Wills was one of the first individuals in the United Kingdom to file a lawsuit regarding hypertext linking; the case was titledShetland Times Ltd. v. Wills. The claimant was the owner and publisher of a publication named the Shetland times (the Times). In addition, the claimant made it possible for readers to access thenewspaper's online edition[23]. The second defendant conducted a news-reporting business under the guise of publishing

[23] Jain, Pankaj and Sangeet Rai, Pandey Copyright and Trademarks laws Relating to Computers, 1st edn, (Lucknow:Eastern Book Company,2005).

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the Shetland News (commonly referred to as the News). The first individualcharged in relation to this affair was the managing director of the news organization. The defendants created a website that featured a variety of New York Times front- page headlines on its main page. By clicking on one of these headlines, Internet users were able to circumvent the Times' homepage and gain access to topic-specific content. These headings wereidentical to those used by the claimant. In the case brought by the Washington Post Company against Total News Inc., Total News operated a website that provided connections to the online properties of a variety of news organizations, including the Washington Post, Time Cable News Network (CNN), Times Mirror, Dow Jones, and Reuters. After tapping on theURLs, the Total News frame was updated with the most recent content from the individual websites of eachnews provider. The frame contained the 'Total News' logo, as well as the Total News URL and Total News-controlled advertisements. The plaintiffs prevailed in their copyright infringement lawsuit against the defendant. In this case, the United States District Court for the Southern Districtof New York issued a settlement order. It stated that "the defendants agree to permanently cease framing the plaintiffs' websites." It is permissible for defendants to link to anyplaintiff's website from the Totalnews.com website or any other website, provided the following conditions are met:

a) Only hyperlinks consisting of the names of the connected sites written out in plain text and capable of being highlighted may be used to link to plaintiffs' websites by defendants[24]

b) The defendants may not use any of the plaintiff's distinctive trademarks or other distinguishingvisuals, video, or audio content on any website, regardless of whether the use involves hyperlinks or another mechanism. This agreement's remaining terms and conditions willnot be affected by thewithdrawal of a plaintiff. If the defendant fails to remove the link after receiving notice to do so, and a plaintiff brings an action to enforce its rights under this subparagraph, it shall be an affirmative defense that the defendants' conduct does not otherwise infringe or violate the plaintiff's rights under any intellectual property, unfair competition, or other law theory. The plaintiff may bring an action to enforce its rights under this subparagraphif the defendant does not remove the link after receiving notice to do so. If the defendant fails to remove the link after receiving notice to do so, the plaintiff has the right to initiate legal action toenforce the rights granted by this subparagraph. In 2010, the case Futuredontics, Inc. v. Applied Anagramics, Inc. was decided, which dealt with a similar topic. Applied Anagramics, Inc., which

[24] Jayashree Watal, "Intellectual Property Rights in the WTO and Developing Countries, (New Delhi: OxfordUniversity Press,2001)

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operates a websitethat provides customers with dentistry services, rewrote the text of a website that functioned as a direct competitor to its own. There was information about Applied Anagramic, its trademark, and links to each of its web pages within the frames. A district court determined that the appearance of the linked site was imperceptibly altered by the inclusion of the frame, and that such modifications could constitute infringement if they were not authorized. Using frames presents several distinct commercial concerns:

The use of a frame has the potential to compromise the economic model of the targeted website. This is due to the fact that a frame has the ability to conceal any branding or advertising that may be present on the framed page.

Second, the presence of the trademark of the connecting site on the target website may mislead visitors into believing that the items on the target website originated from the connecting site.

Thirdly, if framing is used, the linked site may be able to "piggyback" on the content and other capabilities accessible via deep linking. It is conceivable that this is a discriminatory act. Consider the newspapers Times and Post, which each operate their own computing websites (times.com and post.com, respectively).

Times.com does not need to create its own articles because it can simply link to post.com's content on its website. Through the use of frames, Times.com was able to ensure that its logo, advertisements, and navigational elements were consistently and visibly displayed on the user's screen. This allowed Times.com to effectively monetize Post.com's content while maintaining control over its own advertising and other revenue streams[25].

3.2.5 Downloading

A violation of the statutory exclusive rights vested in the copyright holder for a specific work is deemed to have occurred when an unlawful reproduction and exhibition of a copyrighted work belonging to another person on a removable or permanent storage medium is deemed to have occurred. It could mean to receive data on a local system or computer from a remote system, or to initiate the process of transferring data in this fashion. The meaning varies based on the usage context. Internet users are then able to obtain the content once it has been published and made accessible to them. This is a possible occurrence once the content has been made accessible. Users

[25] Justice Singh, Yatindra., Cyber Laws, 4 th edn., ,(New Delhi: Universal Publication, 2012)

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who download content protected by intellectual property rights without the owners' permission are almost certainly liable for damages if the owners file a lawsuit against them. On the other hand, copyright owners are reluctant to pursue legal action against millions of individual infringers because it would be prohibitively expensive. Consideration has been given to the possibility of holding accountable those who provide the equipment or facilities used in intellectual property infringement activities.The legal dispute between A&M Record Inc. and Napster Inc. involves both parties. When the Napster service became available, users were able to exchange MP3 files with one another more readily. The company implemented peer-to-peer file sharing, also known as P2P file sharing, to facilitate the free distribution of their file-sharing software via their website. This method is also known as peer-to-peer file exchange. Users of Napster were ableto browse for MP3 music files cataloged on Napster's central server, as well asshare these files with one another. Utilizing the Internet, users can promptly access their local hard drives in orderto download these files. In the United States, Napster was named as a defendant in a copyright infringement case filed by A&M Records and several other record labels. The plaintiff fared wellin both the District Court and the Court, which both rendered favorable rulings in his favor. LeslieKelly, the plaintiff in Kelly v. Arriba Soft Corp., was a professional photographer. Mr. Kelly had secured copyright protection for the majority of the photographs he had taken in the American West. There is a chance that some of these images were displayed on Kelly's website or on one ofthe other websites with which she has a license agreement. The defendant, Arriba Technology Corporation, operated an internet-based search engine that displayed its results as thumbnail images rather than the standard text format. The Arriba photo library was assembled by obtainingand collecting images from numerous websites.Simply by visiting the Arriba website and selectingand clicking on one of the images presented uniformly throughout the site. Kelly decided to submit a copyright infringement lawsuit against Arriba after discovering that some of his photographs were stored in the search engine's database.Kelly had established a prima facie case of copyright infringement based on Arriba's unlawful reproduction and display of Kelly's works, as determinedby the District Court. In spite of this, the court determined that Arriba's reproduction and display of Kelly's works constituted anon-infringing "fair use" under section 107 of the Act. Kelly filed anappeal, and the Court of Appeals upheld the District Court's ruling. Kelly filed a petition for review, but the Court of Appeals upheld the District Court's decision. Kelly has submitted a petition requesting another review of the verdict. The Circuit Court determined that "the creation and use of thumbnails in the search engine is fair use," but that the publication of the larger image violated Kelly's exclusive right to publicly display his works. This use of Kelly's images is not a duplication of herwork, but

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rather an expansion of what is already accessible on her website. Kelly is not responsiblefor any consequences that may result from this use of her photographs. As a consequence, it is impossible for there to have been a violation of the copyright due to the reproduction of the in question works. Because this use of Kelly's photographs infringes on her exclusive right to "displaythe copyrighted work publicly," it comprises an infringement on her intellectual property and a violation of her legal rights."

3.2.6 Uploading

Many people who use the internet make the error of believing, incorrectly, that if they have access to a piece of information in an electronic format, they have the authorization to put it on their own websites since it is so simple and common for content that is protected by intellectual property rights to be delivered over the internet. This is the case as a direct result of the ease and frequency with which content that is protected by copyright can be sent over the internet. This is a widespread mistake that has to be fixed, and it should be made clear that this is the case. It may refer to the act of launching a process that performs this operation, or it may refer to the act of sending data from a local system to a remote system, such as a server or another client, with the purpose of the remote system storing a copy of the communicated data on its own system. In either scenario, it could mean that a copy of the data that was delivered is being stored on the remote system. Internet users are therefore able to access the content after it has been published and made available to them after it has been made available to them. The following scenario is one that might play out after the content has been made accessible to the general public. If users download content that is protected by intellectual property rights without the permission of the owners, then it is almost guaranteed that such users will be held accountable for damages in the event that the owners launch a case against them. Copyright holders are hesitant to undertake legal action because it would be prohibitively expensive to take legal action against millions of individual infringers. The idea that people who are responsible for providing the equipment or facilities that are afterwards utilized in activities that violate the rights of others should be held liable has garnered a significant amount of attention in recent years. This is a concept that originated in the United Kingdom. In the case Himalaya Drug Company v. Sumit, a restraining order was imposed to prevent an Italian infringer from copying a database of botanical goods.

This was done in an effort to protect Himalaya Drug Company's intellectual property rights. The Himalaya Drug Company's intellectual property was protected in this manner as a result of these

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actions[26]. This course of action was selected to safeguard the Himalaya Drug Company's intellectual property. The Himalaya Drug Company, one of the most successful Ayurvedic pharmaceutical enterprises in India, is your adversary in this case. On the Himalaya Drug Company's website, there is a database containing information on 209 distinct types of botanicals. It is alleged that the defendant in this case, an Italian corporation, cloned anduploaded the entire contents of this database to their website. According to the restraining order issued by the Delhi High Court and brought to the attention of the Internet Service Provider (ISP)in the United States, the ISP removed the infringing content on its own initiative and providedthe complete contact information of the infringer who had rented website space from the ISP.The concerned ISP inthe United States has been made aware of this information. In the United States, the concerned Internet service provider (ISP) was made aware of a restraining order. This course of action was taken in accordance with the injunction issued by the High Court in Delhi. This action was carriedout in accordance with the injunction that had been issued previously. The ISP action is supportedby the Digital Millennium Copyright Act, which is a United States statute requiring ISPs to expunge illegal content upon notification; if they refuse, they could be held liable for their conduct.The Digital Millennium Copyright Act supports the actions of ISPs.This law was enacted in the digital era with the intention of protecting intellectual propertyrights. In other words, the law mandates the removal of infringing content as soon as an Internet service provider is notified of an infringement occurring on their network. At least four distinct individuals or organizations could be held culpable for an infringement based on their Internet activities. The system's developer has the ability to include unlicensed versions of works written by other authors. The individuals responsible for the operation and maintenance of the system may add unauthorized duplicates. Additionally, subscribers are able to submit copies of works that violate the rights of third parties. In addition, the technology can facilitate the distribution of illegal reproductions that violate intellectual property rights[27].

3.2.7 Illegal use or distribution of Computer Software, Programme

The term "computer hardware" does not refer to the assemblage of objects and materials involved in the creation and administration of a computer program. The collection is referred to as "computer software" instead. It is essential to consider computer software as a collection of

[26] Kamath, Nandan., Law Relating to Computers, Internet and E-Commerce, 2nd edn, (Delhi: Universal Law Publishing Co.Pvt. Ltd, 2000)

[27] Kitchin David, Kerly's Law of Trademarks and Trade Names, 14th ed,(London: Sweet & Maxwell, 2005

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interrelated products and resources. It can incorporate flowcharts, diagrams, written specifications, layouts for forms and reports, and screen display designs, among other things.

b) Computer software that may include object code, source code, or other executable code.

(c) Software development tools, such as database development systems, compilers, and reportgenerators.

(d) Databases and data files

(e) Anything produced by a computer, such as a sound, output, data file, or other form of digitalrepresentation, as well as electronic signals.

(f) Display on the monitor any printed instructional materials or instructions, in addition to anydigitally recorded instructions.

Computer languages for programming.

If the written specifications, flowcharts, form and report layouts, designs for screen displays, and computer output (such as sound, print-out, etc.) were all created from scratch, they are all protected by copyright. Flowcharts, designs for screen displays, and document layouts for form and report documents are additional types of output that can be protected. It is of the uttermost importance to inform the intended audience that this protection applies to all of the aforementioned factors. In one of the earlier decisions, Data Cash System Inc. v. JS & A Group, the court determined that the program was not protected by copyright because it could not be viewed and read with the naked eye. This was one of the factors that led to the court's decision. This was one of the factors that the judge considered when rendering her verdict. This was one ofthe earliest documented occurrences. This position is no longer legitimate due to subsequent decisions that have rendered it invalid. Goulding J. determined in Sega Enterprises Ltd. v. Richhards that the copyright would be maintained in the program's assembly code version (the source code), and that the copyright would also apply to the object code because the object code was either a replication or an adaptation of the assembly code version. This decision was made due to the fact that the object code was a replication or modification of the assembly code. This choice was made because the version of the assembly code that was initially developed was the original. The copyright was therefore able to provide some degree of protection for the object code.The term "software piracy" refers to the illegal duplication or distribution of software and encompasses the following behaviors as examples[28]:

[28] Kumar Krishnar, Cyber Laws-Intellectual property and e-commerce Security, (New Delhi:Dominant

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The act of replicating or possessing software without a valid license for each copy is theft by the end user. Users on a personal level and enterprises of any size are required to purchase the appropriate number of software licenses to cover the installed program. Only the Windows Desktop features qualify for volume licensing; the Windows operating system as a whole is ineligible.

(a) Patent infringement by computer manufacturers It is illegal for a computer manufacturer to unlawfully duplicate software and preinstall it on multiple computers at their factory. This form of theft is known as "manufacturer piracy."

(c) Software plagiarism perpetrated by the original author It is illegal to make unlicensedsoftware available for distribution over the internet. If this option is available, determine whether the product's publisher has granted permission for the software to be distributed over the Internet.

It is a violation of the law to make unauthorized copies of software and disseminate them in packaging that replicates or duplicates the packaging used by the original product's manufacturer. Frequently, these shipments contain forged registration documents that have been altered to conceal illegal serial numbers.

(e) It is illegal to resell software in a manner that violates the original terms of sale or to resell software for which reselling the program is expressly prohibited. Since 1996, the defendants in the lawsuit filed by Microsoft Corporation against Yogesh Popat had operated a computer manufacturing and distribution business. In addition, the defendants provided workstations with pirated versions of Microsoft Software already installed. A Microsoft employee purported to be a customer and posed as a prospective purchaser in order to place a trap order with the defendants. In retaliation, the defendants gave the employee a computer whose security had been compromised by the larceny of Microsoft software. Following this, Microsoft initiated legal action against the culpable parties in an effort to obtain a permanent restraining order and monetary compensation. Due to the absence of the defendants in court, the magistrate ruled in favor of the plaintiffs and awarded them injunctive relief and damages totaling Rs. 2 crore.

3.2.8 RAM copying

There are numerous storage media types that can be used to retain digital information. Among them are semiconductors, disks, CD-ROMs, optical disks, digital cassettes, and many others.

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Optical disks are an example of an additional form of storage device. Data that has beenprocessed by a computer is temporarily retained in its random access memory (RAM) until it is retrieved again. Random-access memory (RAM) is memory that can be retrieved in any sequence. This is deleted every time the computer is powered down and then restarted. In Apple Computer v. Formula International, it was determined that copies stored in random accessmemory (RAM) are temporary and that the execution of a computer program that is also storedin RAM does not result in the creation of a copy that violates the intellectual property rights of a third party. This conclusion was reached due to the fact that RAM is an unstable storagemedium. Given that RAM does not function as a storage medium that maintains its contents overtime, both of these findings are legitimate. This option was selected in consideration of the fact that RAM is a storage medium that endures data loss over time. Nonetheless, if the "copyright law" were applied to the situation described above, it would be questionable whether the temporary storage of (often copyrighted) code in RAM constitutes "fixation" of the code. This is due to the storage of copy-protected code in RAM. This issue would become apparent if"copyright law" were applied to the situation. RAM's ability to store information indefinitely explains why this is the case. If it is discovered that the code provisionally stored in RAM has been "fixed," RAM will be considered a "copy" of the original work. The construction of an unauthorized RAM replica of a protected work without the author's or owner's permission is the most fundamental form of copyright infringement. Illegally copying a protected work in RAM without permission. This situation constitutes a total violation of the copyright. In MAI System Corporation v. Peak Computer Inc., the owner of the operating system software copyright filed an infringement suit against a computer repair company, alleging that the company violated its rights by turning on a computer running the operating system in order to service a customer's machine. The court ruled in favor of the software proprietor of the operating system. The alleged breach of contract was alleged in a complaint filed with the United States District Court for the District of Massachusetts. In this case, the plaintiff claimed that the defendant violated its rights by activating a computer running the operating system in order to repair the customer's equipment.The actions of the defendant were justified because the plaintiff required the customer's apparatusto be repaired. Due to the defendant's actions, he was able to obtain access to the software application, which was essential for determining what initially caused the issue. This allowed himto gain a more accurate perspective on the issue. The Ninth Circuit Court of Appeals affirmed theDistrict Court's ruling that "the loading of copyrighted computer software into the memory of a central processing unit (CPU) causes a copy to be made" constitutes infringement when the copyright holder does not receive authorization. This decision will have

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significant repercussions,both in the present and in the foreseeable future. When an individual browses the Internet, a copyof each web page they visit is stored in the computer's random- access memory (RAM). Using thisratio, a person who is merely perusing the Internet could be held liable for violating the intellectualproperty rights of a third party, despite not actively downloading or uploading any content. It is ofthe utmost importance to remember that transient storage in RAM is equivalent to display and reproduction in tangible form, and that engaging in either activity without the copyright holder's permission constitutes a violation of that copyright holder's copyright. In addition, it is crucial to remember that even transient storage in RAM is analogous to display and reproduction in physical form. In addition, it is of the uttermostimportance to remember that even temporary storage in RAM is equivalent to actual physical display and reproduction[29].

3.2.9 Music Rights

In the past, having a prominent online presence was regarded as an indicator of a person's level of distinction. As a consequence of substantial losses, music rights holders are compelled to impose restrictions on the widespread online use of audio. This is the result of the effect these casualties have had. The Internet was used to facilitate the distribution of illicit copies and counterfeit versions of recorded content that had not been made available for commercial distribution. During this time period, the term "bootleg copy" was commonly used to refer to illegal reproductions. For instance, the digital audio files utilized in the game Rio can bedownloaded and played on the required computer peripherals. Moreover, the audio quality generated by these devices is remarkably comparable to that of a CD. Music Bot will scour the expanse of the internet in search of websites that allow users to download music files, and it will report back to the user its findings. Myspace.com, which is operated by Myspace Inc. and not Universal Music Group Recording Inc., permits users to upload and download music to their personal computers. MySpace is a social networking website that enables users to upload music totheir profiles and generates URLs for recording companies and individual musicians. The websitewas distinguished from others by the fact that content in violation of intellectual propertyrights could be illegally uploaded to the internet. This was one of the characteristics that distinguished the website from its rivals. Universal Music Group (UMG) is suing Myspace onthe grounds that the social networking site

[29] Lillian Edwards, and Waelde, Charlotte., Law and the Internet: Regulating Cyberspace, (Oxford: HartPublications, 1997)

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violates copyright regulations and trespasses on UMG's rights. Thelawsuit was initiated by UMG. According to the lawsuit, Myspace violatedthe law when it permitted its users to post millions of Universal Music Group-owned music videos without first obtaining permission to do so. As the adversary in this case, Universal MusicGroup has filed a lawsuit against Myspace. Universal Music Group asserted, as part of its defense, that "Myspace was well aware of the plaintiffs' (UMG) copyright interests in the thousands of unlicensed sound recordings, musical compositions, and music videos that have been posted on Myspace." In a separate set of legal proceedings, the French Supreme Court adopted the same strategy. The nameof the company is Myspace, Inc. The defendant, who owns and administers MySpace, violated the plaintiff's copyright by uploading protected content to its website without the plaintiff's permission.According to the plaintiff, this constitutes negligence on the part of MySpace. The question was whether or not it would be considered an act of infringement under Section 51 (a) (i) of the IndianCopyright Act,1957 if the defendants published the plaintiffs' copyrighted work on their website without obtaining a license or permission from the plaintiffs. The query was posed within this context. This was the issue for which a solution was required. Exactly this was the issue that required resolution[30].

The court determined that the defendant's actions constituted infringement; consequently, the court ruled that the defendants' actions constituted allowing the location to be used for infringement, which is a violation of Section 57(a)(ii) of the Copyright Act. The court also determined that the defendants' actions constituted allowing the location to be used in violationof the law. The prosecution determined that the defendants were responsible for both violations. The court rendered this verdict after determining that the defendant's actions comprised an infringement of the plaintiff's intellectual property rights. The development of new software and technology by companies such as Progressive Networks, Liquid Audio, and Marcomedia has enhanced the quality of audio that is transmitted over the internet. The publicity surrounding the litigation involving Napster demonstrates the gravity of this topic. The final track of an album is the culmination of all of the preceding effort. Imagine the damage that could be done if it were straightforward to make copies and upload them to the Internet. This is precisely what could occur. A Brief Overview of the Past of the Napster Corporation Napster was one of the first corporations to offer a digital music download service. As a direct consequence of this modification, users can now send and receive MP3 files much more easily. The terms "peer to peer" and "P2P file sharing"

[30] Lionelll Bently & Bbrad Sherman, Intellectual Property Law, 1st edn, (Oxford University Press,2003)

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are frequently used interchangeably. The acronym "p2p" is used to refer to "peer-to-peer file exchange."

Napster Music Share, a free program that can be downloaded from the company's website, is largely responsible for making this accomplishment possible. In addition, Napster's network infrastructure and server-side technologies were crucial components in the process of attaining these objectives. In addition, it provided technical assistance for indexing and navigating MP3 file collections. Regarding the Current Legal Conflict Between A&M Records, Inc. and Napster, Inc. As a result, recording companies decided it was necessary to submit a complaint against Napster, accusing the service of directly and indirectly violating copyright regulations. On July 26, 2000, a preliminary injunction was issued in favor of the plaintiffs after the Northern District of California District Court granted their application for the same. On August 10, 2000, the District Court issued a preliminary injunction against Napster that was intended to be carried out. The agreement prohibited the company from "engaging in, facilitating, or distributing the copyrighted musical compositions and sound recordings of the plaintiffs, which are protected by federal and state law." District Judge Marilyn Hall Patel issued the ruling, stating that "the evidence establishes that the majority of Napster users utilize the service to download and uploadcopyrighted music." It appears that the defendant has infringed upon the musical compositions created by the plaintiffs in this case. Moreover, during the January 2000 dispute between MP3.com, Inc. and UMG Recordings, the defendant service purchased a number of well-known CDs for which the plaintiffs held the copyrights. For the defendant to play the audio recordings of the plaintiffs for the defendant's subscribers, the audio recordings had to be unlawfully downloaded onto the defendant's computer systems. MP3.com subsequently issued a statement regarding the introduction of its MyMP3.com service. The company stated that the new feature would enable customers to access, customize, and listen to CD recordings from any Internet- connected location in the world. To gain early access to an audio recording, a subscriber must satisfy one of the following requirements[31]: The court determined that the defendant's actions constituted infringement; consequently, the court ruled that the defendants' actions constituted allowing the location to be used for infringement, which is a violation of Section 57(a)(ii) of the Copyright Act. The court also determined that the defendants' actions constituted allowing the location to be used in violation of the law. The prosecution determined that the defendants were responsible for both violations. The court rendered this verdict after determining that the defendant's actions comprised an infringement of

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CHAPTER- 4

COPYRIGHT INFRINGEMENT IN CYBER SPACE: REMEDIES UNDERINDIAN LAWS

4.1 INTRODUCTION

The entire commercial sector has been subjected to a period of fundamental change after a certain amount of time has passed. This is the result of the penetration of information technology into a broader range of industries, including hospitality, retail, and the entertainment industry. Internet connectivity is swiftly becoming a requirement for the continued existence of all businesses in the modern era. There is no such thing as prejudice based on a person's nationality, ethnicity, or religion in the field of information technology. In reality, the information technology industry is the single most influential factor in the globalization of business, general commerce, and free trade. Due to advances in replication technology and the declining cost of copying all categories of copyright-protected works, the effectiveness of copyright law as a means of preventing unauthorized reproduction has been seriously questioned. Copyright laws prevent illicit duplication of certain types of works. This is due to the evolution of reproduction technology, which has resulted in a decrease in the cost of reproducing all categories of works protected by intellectual property laws. In recent years, there have been significant advancementsin cloning technology, which has led to this outcome. Copyright laws afford the proprietor of an original work a "bundle of rights" in exchange for legal protection. Included in these rights are the exclusive right to reproduce the work in reproductions, the right to create derivative works based on the copyright work, and the right to publicly perform or display the work. Each of theseliberties assumes a larger level of significance in an environment where computers are networked together. The copyright restrictions that govern these rights continue to apply regardless of whether or not the work in question is preserved in a digital format. This is because copyright governs these rights. To maintain privileges, it is necessary to adhere to these rules at all times, regardless of the type of work being performed. However, human activity in cyberspace results in rights violations and criminal behavior, both of which must be regulated because they are created by humans and can therefore only be managed by humans. Because these problems are caused by human activity in cyberspace, regulation is imperative. The prosecution of composite copyright violations on the Internet, such as framing, deep linking, and the sale of counterfeit goods, presents a significant challenge. Examples of such violations includethe following. The practice of selling stolen items

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is one of these violations. In additionto the typical copyright violations, several other types of violations have occurred. These infringementsare the result of the fluidity of the Internet, its simplicity of use, and the practicallynonexistent marginal costs associated with copying and disseminating works. In addition, a significant numberof websites are presently engaged in the business of trading freeware installations and illegally obtained software copies. Despite the development of new technologiesand the establishment of alegal framework, the protection of intellectual property rights in cyberspace continues to be one ofthe most difficult problems to address. As a direct response to the immoral, civil, and criminal violations that have occurred in cyberspace, the law should reassure users with regard to secure usage and the protection of copyright from unauthorized users. This should be done to protect intellectual property from further harm. This action is required for the law to become effective. However, new technology is not limited to computer systems; in the context of copyright law, other technological advancements must also be taken into account. The Indian Copyright Act of 1957 was enacted to secure computer software, but it does not protect intellectual property rights on the internet. The 2000 Act for the Protection of Intellectual Property in the 21st Century does not contain any provisions regarding the protectionof copyrights. Due to the unique characteristicsof information dissemination via the Internet, thequestion of whether or not courts would have jurisdiction in the event of a copyright violation in cyberspace is being investigated globally. International legislative initiatives to regulate copyright protection in cyberspace are still in theirinfancy because the internet is still in its infancy. This circumstance is a direct consequence of thefact that the Internet is still in its infancy. On the other hand, both domestic and international legal remedies are proceeding at a snail's tempo due to the current level of insecurity. This is the result of ongoing research into the capabilities and potential of cyberspace, which leads to the creation of new applications, uses, and business models.

4.2 COPYRIGHT INFRINGEMENT IN CYBER SPACE

- The spread of information and communication technology, particularly the Internet, has contributed to the socioeconomic and cultural development of contemporary society. Because of how its function operates, it has been utilized to infringe upon copyright withoutthe user having to consider the consequences of their actions. In addition to the physical installation of a modem, access to the Internet necessitates the signing of a contract with an Internet service provider. Certain cultural, educational, and entertaining works may be protected by copyrights, which are granted to the owner or licensee to prevent illicit duplication. Even with the most rudimentary

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technological tools, it is possible to distributecopyright-protected works, so any of these methods can be used to violate copyright regulations. It is straightforward to create digital or digitized copies of content such as text,images, audio, and video. These reproductions are applicable in a variety of settings. Withthese instruments, it is possible to violate the laws governing intellectual property. Utilizingmechanisms such as electronic mail, electronic bulletin boards, and network connections, it is possible to disseminate digital information across the globe. Because personal computers are becoming more accessible and the cost ofmass storage media is decreasing,it is now possible to obtain, store, display, and print information. Additionally, it is possible to send downloaded documents to third parties without the consent of the person legally responsible for those materials. It is extremely dangerous due to its extreme susceptibilityto manipulation, deletion, revision, and change without leaving any trace of the original. Copyright infringers can now readily communicate copyright-protected content due to theproliferation of multiple communication and file-sharing methods on the Internet, such aspeer-to-peer file sharingsystems and torrents. As a direct result of this, virtually none of the copyright holders' rights are preserved on the internet. The following organizations and individuals are accountable for infringement of intellectual property rights in cyberspace:

- There is no decline in reproduction quality, nor are there significant increases in marginal distribution or reproduction costs.
- The system allows users who are illiterate, anonymous, and inexperienced with thecurrent copyright legal structure to participate.
- Absence of a national body charged with regulating the preservation of intellectual property in cyberspace.
- The issue of which legal system would be utilized in the event that copyright rights were violated in cyberspace.
- It is difficult to ascertain who is responsible for the crime due to the vast number of Internet users[32].

The user agreement must make it abundantly clear that the website owner retains all copyright (in content, underlying programs, and styling) and that any unauthorized downloading, caching, browsing, mirroring, scanning, uploading, or file swapping may violate the copyright owner's

[32] Mckeown John S., Fox Canadian Law of Copyright and Industrial Design, 3rd.edn., (Ontario: Carswell ThompsonProfessional Publishing)

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exclusive legal rights in cyberspace. In addition, the user agreement must make it abundantly plain that the website's owner retains all intellectual property rights (in content, underlying programs, and styling). In addition, the user agreement must make it abundantly clear that the website's proprietor retains all intellectual property rights (in regards to content, underlying programming, and styling). This should be conveyed in the clearest manner possible. In addition, the user agreement must make it crystal clear that the website owner possesses all intellectual property rights (pertaining to the website's content, the underlying programming, and the styling). This should be conveyed in the most direct manner possible. In the event that softwareis published, sold, or distributed without the permission of the copyright holder or in a manner that exceeds the limitations of the granted license, the copyright holder has the legal right to filea claim for infringement, even if registration of the copyright is not required by law in the jurisdiction where the copyright holder resides. This is true even if the law does not necessitate copyright registration. Even in jurisdictions where registration of works is not required by law, the copyright holder retains the legal right to voluntarily register works if they so choose. Evenin countries where registration is not required by law, the owner of the copyright has the legal right to register the work in issue voluntarily. The term for this is proactive registration. As a direct consequence of this, it is no longer necessary to display a copyright notice as evidence thatone is the owner of the copyright. This requirement has been eliminated. As a direct result of thismodification, copyright assertions are no longer required to be accompanied by a copyright notice. This requirement was once in effect. If someone violates your intellectual property rights,you may seek monetary compensation, injunctions, a profit accounting, and any other available legal remedies. On the Internet, the protection of copyright-protected works in the digital age posessignificant copyright concerns. These concerns are associated with the intellectual property concepts underlying India's intellectual property legislation. Following is a list of topics that will be discussed in the order listed:

(i) If a piece of content is protected by intellectual property laws, is it prohibited to link to it?

(ii) Do search engines produce illegal copies of the websites they index, in violation of intellectual property laws?

Can Internet service providers be held liable for content that violates copyright laws and regulations when users publish content online?

(iii) Is the administrator of a message board or blog liable for content posted by other users that infringes upon their intellectual property rights?

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(iv) The problem of nationality and jurisdiction that arises because an action that is legal in one country may be unlawful in another. This issue arises from the fact that an activity that is lawful in one country may be illegal in another.

4.3 COPYRIGHT INFRINGEMENT IN CYBERSPACE:

The provisions of the 1957 Copyright Act that are still in effect in the present day. The increased accessibility of cyberspace, which has created a climate in which intellectual property rights are more likely to be violated than in the past, has increased the likelihood of the existence of a climate in which intellectual property rights are violated. Because piracy is so simple to commit, when the copyright rights of something that should be protected are violated, the criminal justice system is placed in a difficult position. In today's digital environment, the illegal distribution of intellectual property poses a significant obstacle for the legitimate proprietors of intellectual works. Those responsible for the creation of written works, films, musical compositions, and computer programs must keep this in mind at all times. As a direct result of this, a number of different law enforcement agencies continue to conduct investigations and legal actions regarding the misappropriation of intellectual property. Everything that can be "digitized," or reduced to a series of zeros and ones, can be transmitted effortlessly from one computer to another.This is due to the fact that computers use binary systems. In addition to text, the file contains still photographs, audio, and video. Utilizing the capacity of computers to fraudulently transmit vast quantities of intellectual property, pirates have devised a scheme to defraud others.[33]. The increasedease with which various types of works can be digitized and replicated as a result of technologicaladvancements has an effect on the operations of numerous types of businesses. Specifically, this affects the ability of businesses to safeguard their intellectualproperty. For instance, the discussion surrounding Napster is beginning to suffer as a direct resultof the repercussions of cybercriminals.If the author or creator of the work is not consulted prior to the reproduction of the work in any form, regardless of whether permission is required, a copyright violation has occurred. If a personviolates the terms of a license, does something that only the owner has the exclusive right to do, which is the owner's right under the Act, or allows aplace to be used for communication of a work when such communication constitutes an infringement of the copyright in the work, this is considered an infringement of the copyright in the work, unless the person was unaware of this and had no

[33] Menon, Shailaja., Protection of Intellectual Property in Cyber Space,1 st edn, (Delhi: Authors press GlobalNetwork,2003)

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reasonable cause to know this. In thisinstance, the violation is not deemed to have takenplace. To establish that the defendantinfringed upon the intellectual property of the plaintiff, the defendant must have replicated the plaintiff's expression of his ideas, but not the plaintiff's ideas themselves. This is required inorder to demonstrate that the defendant infringed upon the intellectual property of the plaintiff. After that, and only then, could it be demonstrated that the defendant has violated the plaintiff's intellectual property rights. Copyright laws impose numerous restrictions on the dissemination ofcreative works to the general public. When a substantial portionof another person's work is reproduced, published, communicated to the general public, altered, ortranslated by an individual, the original author's intellectual property rights have been violated. This may occur if the task is conducted, communicated, or performed before an audience. To qualify as meeting the conditions, the work must be reproduced, published, and used in any othermanner without the permission or sanction of the copyright holder. This takes into consideration all potential applications of the work. If you download internet-accessible content without first obtaining the creator's permission, you may be perpetrating an act that is considered an infringement of intellectual property. The prerequisites for copyright violations in the United Kingdom can be found in Section 51 of the Copyright Act, which is also present in the aforementioned nations. The reader must determine whether the security lapse occurred in cyberspace or in the physical world. Both of these alternatives are currently debatable. When one reads Section 51 of the Copyright Act of 1957 in conjunction with Section 14, it is evident that any reproduction, distribution, or communication of a copyrighted work constitutes a violation of the copyright provisions of the Act. When reading Section 51 in conjunction with Section 14 of the same law, this becomes abundantly obvious. Reading Section 51 of the same law alongside Section 14 makes it abundantly apparent that this is the case. However, there is no duplication of legally protected intellectual property when a piece of work is linked to from another website orincorporated into that website. Replication occurs when a user accesses a connected page by going to another page and selecting a link to get there. The burden of reproduction responsibility rests solely on the shoulders of the user.

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

Importantly, the addition of a hyperlink to a website does not directly result in the duplication of the website's substantive content; rather, the hyperlink functions as a signpost that directs users to another website. It is essential to observe, therefore, that the addition of a hyperlink to a website does not directly result in the duplication of the website's substantive content. In the overwhelming

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majority of instances, approval is not required to create a surface link to ahomepage because it is not required to connect to a homepage. This perspective is based on the notion that the act of publishing content to the internet implicitly grants access to the website in question to anyone with access to a computer. This viewpoint is supported by the evidence presented in the next clause[34]. The mere act of providing a link does not violate a person's intellectual property rights any more than the library catalog does. The Copyright Act of 1957 defines copyright infringement as "reproducing any copyrighted work," "issuing copies of the work to the public," or "communicating the work to the public." The Copyright Act defines communication with the public as "making any work available to the public to be seen, heard, or otherwise enjoyed directly or 'by any means of display' or diffusion other than by issuing copies of the work." In other words, "making any work available to the public to be seen, heard, or otherwise enjoyed directly." In other words, the act of "making any work available to the public so that it can be seen, heard, or otherwise enjoyed directly." To restate the definition of the term, "making any work available to the public so that it can be seen, heard, or otherwise enjoyed by thepublic," This definition applies regardless of whether a person enjoys a work by viewing it, listening to it, or appreciating it in another manner. Given that "by any means of display" has been used to characterize communication, this definition of public communication could be expanded to include the communication of a website's content over the Internet.Thereconstruction can be carried out as a direct consequence of the user visiting the linked page. In the event that the problemarises, it is the user's responsibility to discover a solution. If it is discovered that the website that links to the content also distributes versions of the content or makes it accessible to the public, thecontent may be considered to have been disseminated by the website in question. By visiting the website, individuals can learn about the existence of the artwork and locate the location where it is displayed. After clicking the link, it is up to the user todecide whether or not to access the content that has been made available. Despite this, there isnot a particle of doubt that the linked website facilitates the dissemination of information. When someone uses an embedded link on their website, they are not responsible for the reproduction ofcontent that is protected from duplication by intellectual property laws. This is due to the fact that the person who generates thelink does not create a copy of the stolen content; rather, he or she instructs the browser on how toaccess the image, which is then embedded on the user's website. This is because the individual who generates the link does not create a copy of the stolen content. This occurs because the user who generates

[34] Merges Robert P, Intellectual Property in the New Technological Age, 2nd edn., (New York :Aspen Law andBusiness,2000)

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the link does not generate a copy of the content that has been misappropriated. Thisis due to the fact that the individual who created the link does not make a copy of the stolen and unauthorizedly used content. The only person who can reproduce the protected image is the end user, who is typically unaware that his browseris downloading components from numerous other websites.[35] If replication occurs at all, it will only occur on the end of the individual who clicks the link to the connected website. If multiple individuals follow the link, it will not replicate. Thisspecific location is the only location where replication will occur. In addition, the author of the work containing the embedded link does not publish, communicate, or otherwise make public anycopies of the work. By doing what they do, one could argue that his actions contribute to the dissemination and transmission of knowledge.

Since "by any means of display" has been used to define "communication to the public," the Copyright Act's definition of "communication to the public" could be expanded to include the transmission of website content over the Internet. This would be the case because "public communication" has been defined as "any means of display." This is due to the fact that the phrase "communication with the public" has been defined to include "by any means of display." Due to the fact that "by any means of display" has been used to define public communication, this must be completed. This is because the phrase "communication to the public" has been utilized. Copyright infringement through the use of frame and in-linking, as well as the application of Section 14 (a) (vi) of the Copyright Act of 1957, which states that only the author of a copyrighted work has the right to adapt it, are all significant factors in this instance. The website that is attached to another website is able to construct its own website using elements such as images, text, and video clips from the linked website. This procedure is known as in- linking, and it is accomplished through the use of in-linking technology. This action violates the author's rights regarding the adaptation of their work. The interconnected nature of websites raises challenging moral concerns. In addition, Section 57 of the Copyright Act of 1957 states that "independent of the author's copyright, and even after the assignment either wholly or partially of said copyright, the author of a work shall have the right to claim the authorship of thework and to restrain or claim damages with respect to any distortion, mutilation, or alteration of the work." This clause states that "the author of a work shall have the right to claim authorship ofthe work." This particular paragraph states that "the author of a work shall have the right to claimauthorship of the work." This section stipulates that any creator of a copyrighted work who suffers a loss as a result of in-text linking

[35] Narayan,P., Law of Copyright and Industrial Designs, 4th edn . (Kolkatta: Eastern Law House, 2007)

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is entitled to compensation. These privileges includethe ability to file a lawsuit against the responsible party. According to India's copyright law, any modification or multination of a website's content without the owner's express consent is considered an infringement of the owner's rights and is therefore a criminal offense. This holds true even if the Act does not expressly prohibit in-linking. In other words, even if the Act does not expressly prohibit in-linking, any modification or multination of a website's content without the owner's permission is considered a violation[36]. This is the case despite the fact that the Act does not expressly prohibit in-linking. Furthermore, it is of the utmost importance to investigate and determine whether or not picture framing is illegal. According to intellectual property law, the person who frames the content of another website on his or her own website is not personally liable for the reproduction of sensitive material that was replicated from the other website. Thisis due to the fact that the framer never directly replicates the stolen content; instead, they provide the visiting browser with instructions on how to access the content, which is then embedded into the user's page. This is because the framer never duplicates the stolen content directly. This is because the framer will never create an exact copy of the stolen material. This is due to the fact that the framer will never copy the stolen content in its entirety and then distribute both variants. Consequently, this situation will never occur. The only individual who duplicates content is the end user, who is typically unaware that his browser is simultaneously retrieving components from multiple websites. The only individual who replicates the content for their own personaluse is the final consumer. Because the user's browser obtains the content directly from the owner's site, the framer is not directly responsible for issuing duplicates of the work, transmitting or disseminating the work to the general public, or any of these other activities related to the work. By doing what they do, one could argue that his actions contribute to the disseminationand transmission of knowledge. In addition, the Copyright Act makes it abundantly clear that only theoriginal author of a copyright-protected work has the authority to make modifications to that work.Utilizing the multimedia capabilities accessible on a framed website enables a websiteto develop its own unique interpretation of a component. This is something that the website that frames the other website could conceivably do. This may affect the right to create a derivative work based onthe website that is being framed. Removing elements from their original multimedia context and combining them with other elements is an excellent example of adaptation. This may affect the right to create a derivative work based on the website that is being framed. In addition, the removal of segments from their original multimedia environment and their subsequent combination with other segments is a spectacular example of

[36] Natalie, Stoianoff., 'Patenting Computer Software, An Australian Perspective, (Sweet and Maxwell Ltd.,1999)

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adaptation. Given this information, one could argue that the rights to derivative works and adaptations do play a role in the structural formation process.When something is presented in a specific way, moral liberties become a matter of contention. TheCopyright Act allows the holder of a copyright to assert authorship over a piece of work. Becausethey are not informed of the source of the material when it is formatted for them, it is highly likelythat the user will never discover who the original author was. It is highly unlikely that the user will ever discover the origin of thewebsite's various components. The person who constructs a frame does not "copy" the page's content; rather, they instruct the user's browser to retrieve and display content from another website alongside the original page's content. This is performed in conjunction with the page's original content. This content appears alongside the site's surrounding content on the page you are presently viewing[37]. This takes place at the same time as the presentation of the content of the website, which is what builds the frame. When using a website that has been framed, the URL of the web page that is being framed does not appear on the screen as the user navigates the website. As a consequence of this, the user may be led astray into believing that the owner of the website is the rightful owner of the content that has been appropriated. Because the user is never informed that the content he is reading was originally published on another website, this practice may constitute a violation of the author's right to seek due attribution, which is a legal requirement.Under no circumstances should you make it known to the user that the content they are reading iscoming from another website. The author of a work that is safeguarded by laws pertaining to intellectual property has the legal right to keep an eye on how the work is being utilized and checkto see that it is not being changed in any way. The ability to aggregate the material of numerous websites into a single window, so creating a work that is fundamentally new and different from the original work, has major consequences for the right to preserve the integrity of the original work. This is because the original work is being transformed into a work that is completely new and unique from the original work. This is due to the fact that combining the material of several different websites into a single window produces a piece of work that is essentially different fromthe one that was originally created. The act of mixing different components can be seen as a sort of alteration or even mutilation, depending on the particulars ofthe circumstance and how they are presented to the viewer. This can be the case even though the components themselves have not been changed. However, this conclusion is extremely conditional on the specifics of the situation. It is possible, given the existing state of circumstances, that linking, hyperlinking, and deeplinking

[37] Nayar, Pramod. K., Virtual Worlds: culture and Politics in the Age of Cyber technology, 2 nd edn, (Sage Publication,2004).

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have never been specifically outlawedby a codified legal statute. This hypothesis is feasible given the current state of affairs. In point of fact, it is difficult to do so due to the fact that a total ban would restrict the expansion of the Internet, so diminishing the utility of the internet. In addition, the content that belongs to the owner should not be able to be exploited on the internet. Under the provisions of the Copyright Act from 1957, it is against the law to make unlawful use of the content on another website by connecting to that website, hyper-linking to that website, or deep-linking to that website. This is due to the fact that the Copyright Act protects the authors' right to their own intellectual property.If a link was formed purposefully and with the intent to profit unfairly from the content of another website, then the Indian judiciary may be able to decide the subject on a case-by-case basis. However, this only applies in the event that the link was created willfully. This is only the case if the connection was made successfully in the first place. Under these conditions, there is a distinct possibility that the link will not work. This form of inlinking will be prohibited by the courts in the case that an inline link could be interpreted as helping in the distribution or transmission of deceptive content[38]. Before creating an Internet link to a particular website, businesses and individuals are required to obtain permission from the website's proprietor.Websiteowners may include a clause in their terms of service stating, "Do not link to this website withoutour permission." If the website's owners were adamant about preventing their domain name from being associated with offensive content, this scenario would play out as anticipated. In addition, website proprietors have the authority to prohibit any and all links leading to their domain. If theyare concerned about preserving their company's name from being associated with offensive information, they have this option available to them. Is it even remotely conceivable to be held liable for connecting to a website containing illegal content? In that case, under what circumstancescould this occur? Adding a disclaimer to the website stating that the links are provided for informational purposes only and do not constitute an endorsement or approval of the linked websites' content is probably one of the viable solutions. The disclaimershould state that links to other websites do not constitute an endorsement or sanction of their content. This is due to the likelihood that adding a disclaimer to the website is one of the viable solutions to the issue.

4.4 REMEDIES FOR VIOLATION OF COPYRIGHT IN CYBERSPACE UNDER THECOPYRIGHT ACT 1957

In the event of an infringement of a copyright, the proprietor of the copyright has the legal right to

[38] Phillips, Jeremy, Trade Mark Law, 1 st edn., (New York: Oxford University Press, 2003)

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seek retribution through legal action. This is possible through launching a lawsuit. Possible measures of redress include an injunction, monetary compensation, a percentage of the profits, and/or the return of the objects that infringed on the rights of another party. The Indian judicial system provides a variety of legal remedies for copyright holders whose rights have beeninfringed. When a person's rights have been violated, he or she has the right to pursue the aforementioned legal proceedings. In this situation, you have a number of options, one of which is to issue an order that all infringing copies, including master copies, be seized and destroyed. This law applies to any reproduction that violates the intellectual property rights of an individual.Copyright holders have the legal right to petition the courts for monetary compensation, which can be awarded in the form of monetary damages, statutory damages, judicial costs, or attorney fees. Copyright proprietors have the legal right to sue for copyright infringement. To satisfy this compensation requirement, you are allowed to select any of the following options. When determining how to administer this type of remedy to the parties involved in the case, the courts have a variety of options available to them.

A person who believes they should be compensated for an infringement against the copyright of their computer program can pursue a number of distinct civil remedies. Civil remedies are the correct classification for the numerous legal options listed above. He is well within his rights to file a claim with the institution that violated his rights for compensation for his losses. He is fully entitled to do so. He has the right to behave in this fashion. The majority of the time, the amount of damages awarded for a copyright infringement is exactly equal to the amount of copyright value that was lost as a result of the allegedly infringing act. In contrast, damages for conversion are directly proportional to the infringer's profits as a direct result of the infringing copies becoming the copyright holder's property. In contrast, damages for infringement are not directly proportional to profits made. It is appropriate to utilize civil remedies to compensate the copyright owner for any losses incurred.

4.4.1 In the Case of a Violation, Mens rea

Individuality protection in digital environments such as the Internet. In accordance with Section 63 of the Copyright Act of 1957, which was established in 1957, the willful use of an illegal copy of a computer program is punishable by criminal penalties. This piece of legislation was enacted in order to safeguard intellectual property. This specific provision of the law did not become effective until 1957. Section 63B of the Copyright Act of 1957 outlines the penalties applicable to anyone who knowingly uses an unauthorized copy of a computer program on a computer. In

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1957, this section of the law was enacted. The following elements comprise these sanctions: (i) imprisonment for at least seven days and up to three years, and (ii) a fine between 50,000 and 200,000 rupees for each offense. In common usage, the concept that "Actus nonfacitreum nisi mensit rea" is the cornerstone of the traditional understanding of crime is known as "Actus nonfacitreum nisi mensit rea." This indicates that a behavior is not deemed illegal unlessit was performed with the intent to commit a crime. If this is not the case, then the conduct by itselfdoes not constitute a violation of the law. Our legal system makes it abundantly clear that for an act to be regarded an infringement, the perpetrator must have acted "knowingly" in an illegal manner. When discussing violations of traditional copyright, this is the case. The adverb 'knowingly' makes it abundantly clear that the'mens rea' requirements must be met for the charge to be filed. In the case *of Roper v. Taylor's Central Garage Ltd*[39]., Justice Devlinremarked that the word 'knowingly' merely indicates what is widely presumed and does not convey what the presumption in favor of'mens rea' would do if it were applied by inference. Regarding the fact thatthe word "knowingly" only describes what the overwhelming majority of people generally assumeto be true, this was brought up. In the Information Technology Act of 2000, both the "mens rea" and "strict liability" standards are explained in a manner that is clear and simple to comprehend. Section 43 imposes a form of strict liability in terms of criminal responsibility because there is noindication of mens rea, which is a necessary component of the conduct. This is due to the fact thatmens rea is a necessary element of the offense. Mens rea isan essential element. This Act's provision that prohibits "tampering with computer source documents" also contains the words "knowingly" and "intentionally," making it abundantly clear that the act in question must have been committed "knowingly" and "intentionally" for it to be considered a criminal offense. These terms are included within the definition of "tampering with computer source documents." Mens rea must be shown in order to establish the criminal offense of infringement. This requirement is met if the individual publishes protected intellectual property content on their website without thepermission of the intellectual property owner. A violation of the law is referred to as a criminal offense. Moreover, an Internet service provider (ISP) may be held liable for aiding and abetting unlawful activity if they are aware that the website in question is hosted by their organization. This is the only viable defense against suchan offense. A person who obtains content from a website before determining whether it is protected by intellectual property rights lacks the requisite "mens rea." The discussion that preceded this one suggests that intellectual property rights violations are the result of a particular approach to addressing the issue. While some individuals partake in the

[39] Ramkrishnan T., Basic Principles and Acquisition of Intellectual Property Rights, 1 st ed.,

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activities they choose in order to earn money, others do so solely for the pleasure they can derive from doing so. Because microinfractions can be rare and are typically committed for personal gain, the criminal law cannot be used to punish them because they violate fundamental rights. Microinfractions are typically performed with the intention of gaining something for the microinfractionist. The probability of perpetrating microinfractions increases when the public repercussions are insignificant or nonexistent. In lieu of seeking civil compensation, it would be more appropriate to pursue criminalprosecution against those who cause a significant financial loss to the owner. Since 1996, the defendants in Microsoft's litigation against Yogesh Popat have operated acomputer manufacturingand distribution business. Microsoft Corporation initiated the lawsuit. Microsoft Corporation submitted the initial documentation for the complaint. In addition, the perpetrators sold workstations with illegitimate copies of Microsoft Software already installed. A Microsoft employee purported to be a client in order to attract the attention of the defendants andbegin conducting business with them. As restitution, the defendants sent the Microsoft employee a computer that was preloaded with software related to the larceny of the corporation's intellectual property. Microsoft then filed a lawsuit against the perpetrators in an attempt toobtain an indefinite restraining order and monetary compensation. Because the defendants were not presentduring the hearing, the judge decided in favor of the plaintiffs. The judge granted the plaintiffs injunctive relief and awarded them Rs. 2 Crore in damages. If, however, the computer program was not used for financial benefit or in the course of a trade or business, the judge may, for adequateand specific reasons that must be specified in the judgment, impose a fine of up to Rs. 50,000 as an alternative to imprisonment. In the judgment, the rationale for this decision must be specified.It is necessary to provide justifications for this decision. It is necessary to explain the thought process that led to this conclusion. As a direct result, the Act contains a provision that imposes particularly severe penalties on those who violate the intellectual propertyrights associated with computer systems. These individuals could be held accountable for losses ranging from tens of thousands to millions of dollars. Before duplicates of an intellectually protected work can be madeavailable for sale or reproduction, certain conditions must be met.

When it comes to intellectual property issues, criminal law is frequently applied very strictly[40]. One of the possible explanations is as follows. The party that has been wronged has the option of pursuing one of three different sorts of restitution. Administrative action constitutes the third possible line of action that could be taken. It is within the purview of the Registrar of Copyrights

[40] Ravandale C.J, "Domain Names Disputes: Problems & Prospects", (Hyderabad: NALSAR University, 2004)

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to forbid the importation of reproductions of an infringing work that, were it to have been produced in India, would have been in violation of the local copyright laws. This exemption can be found in Section 53 of the Copyright Act, which was made a legal requirement in the year 1957. This authority is only bestowed onto the asking party at the request of the owner of the copyright, and only after an appropriate inquiry has been carried out and the request has been received.

4.4.2 The Copyright (Amendment) Act 2012

Either the person who committed the act of copyright infringement on the Internet or the Internet Service Provider (ISP) that enabled it may be held legally liable for the violation of intellectual property rights and subject to legal action as a result. Multiple Internet users may be liable for infringing on the copyright of another individual. Internet service providers and the individual whose intellectual property rights may be infringed are both implicated in the violation of intellectual property rights that may directly result from online activities. It is possible for intellectual property rights to be violated directly as a consequence of online activity. Internet service providers, also known as ISPs, are businesses that provide their consumers and clients with internet access. This particular form of technical support service is referred to as Internet service administration. People have a tendency to hold the service provider liable for infringement, even though it would make more sense to hold the person who uploaded the document liable for any infringement that resulted from their actions. People are nonetheless inclined to hold the service provider liable for infringement. Despite this, the majority of individuals believe that the service provider should be held liable for the infringement. This isdue to the fact that individuals are more likely to hold the service provider accountable for any errors than they are to hold the individual who submitted the document accountable for any mistakes. The preponderance of this can be attributed to two separate contributing factors[41]: (i) it is difficult to locate an individual who uploads copyrighted content due to the vastness of cyberspace, whereas the service provider has a physical location for its place of business; and (ii)an individual will be unable to pay the amount on infringement, whereas a business can compensate for the losses on infringement. A service provider's place of business has a physical location. This is largely attributable to these two aspects of the circumstance. These two elementsof the scenario have an effect on the ultimate outcome. According to Section 51A(ii) of the Copyright Act of 1957, Internet service providers (ISPs) are

[41] Shamad, Trademark issues on the Internet: Domain Name Dispute Resolution, Legal Dimensions of Cyberspace, (New Delhi : Indian Institute of Law ,2004.

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legally responsible for any copyrightviolations that occur on the internet. If a person "permits for profit" another person to use "any place" to communicate, which is an act of infringement, or if a person facilitates infringing activityunder specific conditions, which is also an act of infringement, that person is liable foran act under this provision, which states that they are liable for an act if they facilitate infringing activityunder specific conditions. Both of these situations are regarded infractions. Both of theseinstancesconstitute violations of the regulations. Each of these actions constitutes a violation of the terms of the agreement. If it can be shown that the intermediary violated section, which describes the circumstances under which copyright infringement occurs, then the intermediary could be held responsible for the copyright infringement of an infringing work that occurred on its network. Thisis only true if it can be demonstrated that the intermediary violated section. This is the case unlessthe ISP or OSP can demonstrate that they were oblivious of the content being transmitted over their network or had no reasonable grounds to believe that the transmission would constitute an infringement of copyright. Unless the ISP or OSP can demonstrate that they were unaware of the content being transmitted over their network, this is the case. In contrast, Section 52 of the Act details the exceptions to the general norm ofcopyright infringement. There is currently no provision in Section 52 of the Act that absolves intermediaries of responsibility for business- related activities. In light of the current status of the Act, this is the appropriate course of action. The Copyright (Amendment) Act of 2012 includes fair use provisions. These rules exempt intermediaries from liability in certain circumstances andgive them the option to remove infringingcontent when notified. Inclusion of fair use in the act. The intent behind the adoption of these lawswas to encourage innovation and originality among users. The phrase "fair use" refers to the act ofusing a creative work for non-commercial purposes. As a solution to the issue of assuring that individuals' legal rights to their intellectual property are protected, these guidelines were developed. Copyright Act (Amendment) Act of 2012 added new sections 52(1)(b) and 52(1)(c) to its text in order to address a recently identified gap in the law. The Copyright Act, which was enacted in 1997, was amended by this act. b) the temporary or incidental storage of a work or performance that is solely involved in the technical process of electronic transmission or public communication; c) the temporary or incidentalstorageof a work or performance for the purpose of providing electronic links, access, or integration, provided that such links, access, or integration have been authorized by the owner[42].

The provision that is commonly referred to as section 52 (1)(b) is meant to primarily apply to

[42] Sharma S.K, Dimensions of Cyber Crime, 1st edn,(New Delhi: Anmal Publication Pvt.Ltd,2004).

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internet service providers (ISPs), whereas the provision that is commonly referred to as section 52 (1)(c) is meant to primarily apply to online service providers (OSPs). Both of these clauses have been written with the intention of shielding Internet service providers (ISPs) and other typesof service providers (OSPs) from legal responsibility for the infringement of the copyrights of third parties. This is accomplished by shielding them from user-generated content that has been uplinked without the ISP's aid or consent. Provided, however, that in the event that the person responsible for the storage of the copy has received a written complaint from the owner of the copyright in the work alleging that such transient or incidental storage is an infringement, then such person responsible for the storage shall refrain from facilitating such access for a period of twenty-one days or until he receives an order from the competent court ordering him to refrain from facilitating access, and in the event of a viola-tion, the person responsible for the storage Atthis point in time, it is not entirely obvious what the day-to-day repercussions of the proposed amendments to section 52 (1) (b) and (c) will be. Because these additional requirements for the Information Technology Act of 2000 must be understood and executed in conjunction with sections 79 and 81, it is possible that the ambiguity that already exists in those sections will expand as a result of this requirement[43]. Section 52(1)(c) of the Copyright Amendment Act of 2012 makes it possible to notify a file-sharing website to remove content that infringes on intellectual property rights. This provision does not offer a comprehensive exception, but it does make such an exception possible. In contrast to clause 52(1)(b) of the Act, which does provide a universal exemption, this clause does not grant a blanket exemption. It has the potential to contribute to a culture of self-regulation and is the only technique of Internet control that has been demonstrated to be effective. On the other hand, it appears impractical for an Internet serviceprovider, or ISP, to screen and monitor every website it hosts.As a result, there is apprehension that certain sections of the law records may contain legal provisions that are knownas "dead letter."The Copyright Amendment Act of 2012 was amended by the addition of sections 65A and 65B, both of which preserve the technological measures that authors use to defend their rights. In thesesections, it is specified that anyone who intentionally circumvents such technological methods to violate the rights of another is subject to a maximum prison sentence of two years, in addition to any other applicable penalties. This penalty is in addition to any potential additional penalties. Exempt from the provisions of this section are activities such as identifying or monitoring a user, protecting national security, conducting authorized investigations, performing security checks with permission from the owner or operator,

[43] Sharma, Vakul., Information Technology Law and Practice, 3rd ed., (New Delhi: Universal Law Publishing Co., 2014)

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conducting encryption research using lawful copies,protecting national security, and conducting authorized investigations. Other exempt activities include undertaking authorized investigations and safeguarding national security. Whoever knowingly removes or modifies rights management information without authorization, or who distributes, imports for distribution, broadcasts, or communicates to the public without authorization copies of any work or performance with the knowledge that electronic rights management information has been removed or modified withoutauthorization, shall be punished with up to two years in prison and shall be liable for any resulting damages. In addition, the individual is responsible for any damages caused by their conduct. The provisions of Section 65Bstipulate that anyone who violates these terms is subject to both of these penalties. In addition, legal action will be taken against the offender for breaking the law, and they will be held accountable for their actions. You also have the option of pursuing legal remedies if rights management-relevant information has been altered. The digital publishing industry, in which authors employ DRMs to prevent reverse engineering or circumvention of the technological measures they've chosen to secure their copyrights, stands to gain significantly from these restrictions. Digital rights management assists authors in preventing reverse engineering or circumvention of the technological means they select to safeguard their copyrights. Authors utilize DRMs to prevent reverse engineering and other technological methods of circumventing the copyright protection measures they have implemented. Digital rights management systems (DRMs) are utilized by authors as a defensive mechanism against reverse engineering and other attempts to circumvent the technological measures they have selected to protect their copyrights. In a recent instance, an endeavor was made to circumvent a DRM system. Currently available solutions include encryption, electronic signatures, digital watermarking, pay-per-view systems, and electronic delivery of software. These are the exact strategies that must be implemented[44].

4.5 "FAIR USE" IN THE CONTEXT OF THE DIGITAL WORLD

On the other hand, other nations have not paid much attention to the fact that the protection of copyrights is in grave peril due to the widespread misuse of technology for unlicensed copyright exploitation. This is a significant issue. This is an essential consideration. Despite the fact that numerous governments have implemented legislation to safeguard intellectual property rights in

[44] Singh, Alwyn Didar., E-commerce in India: Assessments and Strategies for the Developing World, 1st edn, (NewDelhi: Lexis Nexis Butterworths, 2008)

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cyberspace, other nations have paid little attention to the grave threat posed to copyright protection. Despite the fact that other governments have enacted similar legislation, this one has not. In light of this, defining "fair use" in the context of the digital age is of the uttermost importance. The institution of laws to protect intellectual property was motivated by the necessity of achieving two objectives that were in direct competition with one another. These laws were enacted in an attempt to accomplish both of these competing objectives. These objectives included compensating authors fairly for the worth of their original works and ensuring that the general public had access to information germane to the issue at hand. The term "fair use" refers to the legal system's attempt to strike a balance between "the needs of the one and the needs of the many." The phrase "fair use" refers to the reproduction of works for "criticism, commentary, news reporting, teaching, research, and other comparable purposes." This is due to the rigorous application of the interpretation. In the context of academic study and instruction, it most commonly refers to the practice of citing literary or musical works by their author or composer. The realities of the digital age require that this definition be updated as soon as it is feasible to do so. Fair use refers to the practice of posting essays and papers in paid databases or libraries, which both require payment of a subscription fee prior to content access. This practice is known as "fair use," and the term "fair use" can also be used to refer to this form of usage. In addition, "fair use" refers to the operating procedure. "fair use" is an abbreviation for "fair use of copy-protected works" and refers to both the application of newly developed technical methods intended to restrict access to copy-protected works and the activity itself.

Promoting the intellectual growth of the entire community should unquestionably be the objective of the principle of fair usage, which seeks to achieve this objective. In light of everything discussed thus far, it is of the uttermost importance to emphasize the Supreme Court's decision in the case of Mazer v. Stein. The issue was whether or not private schools must provide religious education to their students. In that case, the Supreme Court determined that the purpose of Constitutionally-guaranteed intellectual property protections is the "promotion of the progress of science and useful arts." However, regulations intended to protect intellectual property cannot wholly restrict the use of works themselves protected by intellectual property rights. As a result, there is an urgent need for fair use, a legal doctrine that permits the limited use of works protected by intellectual property rights without the owner's permission. Despite this, it is still possible for members of the general public to violate the "fair use" principle by utilizing new technology to circumvent the restrictions

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imposed by the notion of fair use[45]. Copyright holders, and software proprietors in particular, frequently rely on licensing to safeguard their intellectual property. This is done to prohibit or employ technical methods that would restrict reverse engineering, decomposition, and disassembly, and to safeguard the source code's confidentiality. This is done to protect the source code's confidentiality and prevent unauthorized access. The term "reverse engineering" is an acronym for "reverse engineering," which is the decryption of a computer program's underlying concepts, methodologies, and logic. "Reverse engineering" isalso the term of the actual procedure. Decompilation and disassembly are two techniques that may be employed during the process of reverse engineering. Both of these techniques are utilizedto disassemble computer programs. This is a challenging industry that restricts the utilization of items protected by intellectual property rights. Following the disassembly of object code, it will be translated into a low-level assembly language. Due to the nature of the topic, the issue of whether or not the principle of fair utilization can serve as a justification for reverse engineering will inevitably come up during our discussion. Accolade is a company specializing in the manufacture of computer game cartridges. Sega is suing Accolade for allegedly violating its copyright by deconstructing the code contained in Sega's cartridges and creating cartridges compatible with Sega's gaming systems. The suit filed by Sega can be found here. When the caseis lodged, it will be formally known as Sega Enterprises v. Accolade, Inc. Sega chose the United States District Court for the Northern District of California to file their complaint when the time arrived. The adjudicator determined that decompiling Sega's source code to ensure compatibility was a valid example of fair use and therefore should not have been prohibited. This was due to thefact that the code was a functional component, which are not subject to intellectual property restrictions. Consequently, this issue arose. Before the recompilation process can begin, a machinelevel program, also known as object code, must be transformed into a high level program. The coin-changing systems for vending machines at issue in the lawsuit between Mars UK Ltd. and Teknowledge Ltd. were developed by the plaintiff, who is also a defendant. Teknowledge Ltd. is the defendant in this lawsuit. All of the technological approaches utilized bythese diverse productswere founded on electronic chips. The defendant successfully reversed and enhanced the engineering process to enable the "Cash flow" currency discriminator torecognize new currencies.As a result, the device was able to function properly. It asserted that it had the "right to repair" theproduct, a legal position analyzed in British Leyland Motor Corporation vs. Armstrong Patents Co. Ltd. and Canon Kabushiki vs. Green Cartride Co.

[45] Singh, Ranbir and Singh, Ghanshyam., Cyber Space and The Law –Issues and Challenges, 1st edn., (Hyderabad:Nalsar University ,2004)

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The judge concluded that the device's encryption did not provide an adequate level of trust and that the proprietor had the legal right to attempt to reverse-engineer the device's encryption. In Section 52 of the Copyright Act of 1957, a comprehensive list of activities that do not contravenecopyright rights and are not covered by the statute is provided. This statute section was enactedin 1957. This list is contained within the body of the Act. This summary can be accessed via the provided URL.The principle of "fair dealing" should be considered first among these criteria. Given the current state of affairs, it is of the uttermost importance to determine whether or not the request is reasonable. The private use of a literary, theatrical, musical, or artistic work by a person who is not the author is not a violationof any copyright laws. This applies to any use of the subject work. The requirements of these statutes do not apply to this application. This includes any additional activities beyond the previously specified inquiry, feedback, and subject matter review. The list of exceptions continues,with "fair dealing" being one of them[46]: a) to report on current events; b) to reproduce copyright- protected information for legal proceedings;

c) to utilize it in the legislative process; etc. The copyright (Amendment) Act of 1999 added a number of new acts to the list of those considered to be impeding on intellectual property when it comes to computer programs and activities performed using a computer. The issue at hand relates to a United States statute that is currently in effect. According to what has been stated, the compilation of copies of a computer program or the modification of a computer program from a copy that has been obtained legally for personal, noncommercial use does not constitute an infringement of the creator's intellectual property rights. This is because the original creator of the program intended for it to be used solely for personal purposes. The majority opinion ofthose who have researched this issue is that this is how things should be. Those who have made this assertion have adopted the perspective you outline in this passage. In order to determine whether or not a particular use of a work protected by intellectual property rights constitutes fair use, the following considerations must be taken into account: (i) The purpose and nature of the use, including whether the use is for commercial purposes or educational purposes that do not generate a profit; (ii) The nature of the work that is the subject of the copyright; (iii) The amount and substantiality of the portion used in relation to the entire work; and (v) The amount and substantiality of the portion used in relation to the entire work. These five elements

Additionally, the legislation was drafted with the intention of making it easier for individuals to

[46] Skone James, E.P., Copinger and Skone-James on Copyright (London: Sweet & Maxwell, 1991)

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appreciate the works of others without the authors' permission. This was done for a variety of purposes, including information dissemination, instruction of others, creation of new works, personal enjoyment, etc. This was one of the purposes of the legislation. This was one of the primary goals the law aimed to achieve for its intended beneficiaries. This was one of the primary goals that the legislation intended to accomplish in the global community. In order to comprehend the current state of affairs, it is necessary to take into account the principle of equitable dealing. This will facilitate the development of a comprehension of the current state of affairs. Our legal system, which takes into consideration the social, cultural, and economic aspects of our society, permits a wide range of non-permitted uses of protected works. This is thecase despite the fact that our legal system takes these factors into account. This is due to the fact that our legal system takes all of these factors into account. This is not something that occurs frequently, but it does occur occasionally. In this context, social organizations and amateur groups, as well as a wide range of religious and social events, etc., are examples of how works have been exploited. A second illustration is the use of the works in video games. To achieve the goal of making works accessible to the general public at prices within their financial means, the law must be amended to include not only mandatory licenses, but also statutory licenses in addition to the existing mandatory licenses. At that precise instant, the objective became chievable. Gramophone Company of India vs. Mars Recording Private Limited. Ltd. was beforethe Karnataka High Court, and it was argued that section 52(j), which contributes to the general equilibrium of our legal system, should be retained. The Karnataka High Court rendered this verdict. These clauses are intended to ensure that monopoly rights will not be used in a manner that is detrimental to the interests of the Indian public as a whole; consequently, they are meant to protect these interests. In addition, they are intended to prevent the use of monopoly rights in amanner that is detrimental to the interests of the Indian public as a whole. In addition, they are intended to ensure that monopoly rights are not used in a manner that is detrimental to the interestsof any one person. The use of software-related knowledge to execute newly generated software, to observe, study, or evaluate the execution of a computer program is not considered an infringement of intellectual property; these actions are omitted. In addition, it is not considered aninfringement of intellectual property to use software-related knowledge to execute previously developed software. Additionally, the use of software-related knowledge to examine the operation of a computer program does not constitute an infringement of intellectual property. In addition, itis illegal to utilize previously discovered software information to operate newly developed software. Sometimes, when determining whether or not an act of intellectual property infringementhas occurred, the "motive" behind the use of

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pirated content is decisive. This is due to the fact thatthe term "motive" refers to a person's reasons for their actions. This is the case because "motive" refers to the reasoning behind an action, which explains why this is the situation. Consequently, this is the case due to this reasoning. This situation has arisen due to the fact that piracy is recognized as a criminal offense in a substantial number of countries[47].

Justice S. Ravindra Bhat ruled in the case Chancellor Masters and Scholars of the University of Oxford v. Narendra Publishing House and Others that the concept of fair use permits the reproduction of an intellectual property-protected work. This ruling was rendered in the context of Chancellor Masters and Scholars of the University of Oxford v. Narendra Publishing House and Others. This ruling was issued as part of the proceedings in Chancellor Masters and Scholars of the University of Oxford v. Narendra Publishing House and Others. It ensures not only a public supply of ideas and information, but also a flourishing public domain of expression, to which a person can both contribute and draw, and it has a limited copyright period. Together, these two factors enable an individual to both contribute to and draw from the public domain. Thisensures that there is not only a public repository of ideas and information, but also a public domainin which to store those ideas and information. In light of this, the court concluded that the fair useclauses must be interpreted so as to strike a balance between the exclusive rights granted to the copyright holder and the frequently competing objective of expanding the public domain. Section52 of the Indian Copyright Act, as amended by the Copyright Amendment Act of 2012, outlines the circumstances under which reverse engineering may be considered fair use. In 2012, this section was last revised. The most recent update to this section was in 2012. The year 2012 markedthe commencement of this law's enforcement. This section, which was added in 2012, examines the legal standing of the equitable dealing defense in India, another subject covered in this article.Use of a work that is not a computer program for private or personal purposes, such as research, criticism or evaluation of the work or another work, reporting of current events and current affairs,including reporting on a public lecture, is not considered an infringement. This encompasses all tasks that do not involve computer use in any way. In the explanation to Section 52(a), it is statedthat the act of storing any work in an electronic medium for the purposes specified in the clause, including incidental storage that is not itself an infringing copy, will not be considered an infringement of the original author's rights. This is dueto the fact that storing a work on an electronic medium for the purposes outlined in the clause does not constitute an infringement. Dueto the clause's provision that storing a work

[47] Sood Vivek, "The Fundamental Right to Internet", 1st edn., (India: A Nabhi Publication, 2011)

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on an electronic medium for the aforementioned reasons does not comprise an unauthorized copy of the work, this is the case. Due to the fact that storing a work on an electronic medium for the aforementioned purposes is not deemed an infringement of intellectual property rights, this is the case. The practice of caching demonstrates why the protections provided by fair use should be extended to include these other activities. UnderSection 52 (aa), the legal owner of a copy has the right to create copies or modifications of computer programs in order to use the programs for their intended purpose or to maintain backups.This license permits the lawful owner to utilize the programs for their intended purpose. This authorization has been granted for the purpose of employing these programs. It is permissible to develop interoperability with other programs in accordance with Section 52(ab) so long as sensitive information is not accessible to the public. This is necessary for establishing interoperability. This is one of the necessary requirements that must be satisfied. According to Section 52 (ac), it is a form of fair use to examine the functionality of a computer program to determine the underlying principles that underlie specific aspects of the program in order to execute activities that are fundamental to the computer program'sintended function. This is permissible so long as the evaluation is conducted to enhance the functionality of the computer program. This evaluation is conducted to determine the underlying principles that underpin specific program features in order to carry out activities that are essentialto the computer program's intended function. These tasks are essential to the computer program's intended operation. This is because such an evaluation is required in order to conduct out actions that are vital to the achievement of the goals the computer program was designed to achieve. Thisis the reason why the situation exists as it does. Fair use is defined by Section 52 (ad) as producingcopies of computer programs from legal copies or modifying them for personal, noncommercial use. This is because such applications do not violate the original author's rights. This is due to thefact that these actions do not violate the rights of the original author. This is because both of theseactivities are considered legitimate examples of "fair use." It has been explained that this modification is being made to defend internet service providers frominfringement-related legal actions. The temporary or incidental storage of a work or performanceto facilitate electronic connections, access, or integration is considered fair use under section 52(1)(c), so long as the rightholder has not expressly prohibited such links, access, or integration. As long as the right holder has not forbidden such links, access, or integration, this istrue. This is accurate so long as the rightholder has not placed restrictions on the in question linkages, access, or integration. This is true if the relevant rights holder has not placed restrictions on the links, access, or integration in question. Even if the person storing the work or performance knew or had reasonable grounds to suspect

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that the saved copy violated the intellectual property rights of a third party, this will not alter the fact that this is still the case. Even if the person storing the copy violated a third party's intellectual property rights. This is because these rights are violated if a copy is kept, and this is the reason why. The person who stores copies is responsible for restricting access to them for 21 days, or until a court ofcompetent jurisdiction orders them to do so, whichever comes first. If the owner of a copyright files a complaint alleging that transitory or accidental storage of their propertyviolates their rights, the defendant must comply with the allegations made in the complaint. Whether the storage was intentional or unintentional, this holds true[48].

[48] Srividya, K., Common Law Remedy for Unregistered Trade Marks, Intellectual Property Rights, 1st edn, (New Delhi: Serials Publications, 2007)

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CHAPTER-5

INTERFACE BETWEEN INTELLECTUAL PROPERTY RIGHTS AND INFORMATION TECHNOLOGY

5.1 INTRODUCTION

As a direct consequence of the invention of networking, which made it possible for computers to communicate with one another and share data, human relationships have been profoundly altered. Cyberspace was made possible by the development of computer networks, which led to its birth. The term "interface" is used to define how two or more methodologies, fields of study, or disciplines share information, problems, situations, theories, and practices. This is applicableto multiple methods, fields of study, and disciplines. The term "interface" refers specifically to shared information, events, and conditions among multiple parties. An interface is any hardware or software infrastructure that allows two distinct systems to communicate and share data. Interfaces can take on a variety of forms. The concepts of intellectual property rights, patents, andtrademarks have been given a new perspective in this age of information technology.As a direct result of the scenario that was described, the following issues have recently attracted a greater quantity of attention than they did previously.

The role that modern information and communication technologies play in the process of intellectual property protection. If an information technology can demonstrate that it is novel, useful, and has industrial application potential, it may be eligible for the legal protection provided by patents. If the proposed work is ever created, there is a possibility that copyright regulations will be applied to it[49].

There is a possibility that, if a domain name is used in conjunction with a service, it will be protected as a service mark under the intellectual property laws of the applicable jurisdiction. Consequently, it will be possible to identify the service provider using the domain name. As a form of intellectual property, domain names are covered by the legal protections afforded by the rights associated with the information technology industry. Using a design for the integrated circuit layout protects the integrated circuit layout. This enables for the protection of the integrated circuit layout. The internet facilitates the protection of numerous forms of intellectual property, such as copyright, inventions, and the reputation of a company's products and services.If a person wants

[49] Stokes, Simon., Digital Copyright : Law and Practice, 3rd edn,(Oregon: Oxford and Portland, 2009)

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to be compensated financially for their creative work, they must first invest the time and effort required to produce intellectual property for that work. Only then are they eligible to receive monetary compensation for their work. If they had not done so, it would have been inappropriate for them to take monetary compensation for their creative work. The claim to sole possession of one's intellectual creations is one real-world application of theconcept of property. This permits the safeguarding of artistic endeavors. Individuals will be encouraged to be more creative as a result of this because the assurance that their creative works will be lawfully protected will encourage financial investment in the works that are produced. This increase in support for creative endeavors and investment will result in an increase in employment, technological innovation, economic expansion, and prosperity for civilizations. When it comes to the preservation of intellectual property rights in cyberspace, copyright and domain name are two of the most important factors to take into account. When content is uploaded and transferred in a networked environment, all exclusive rights become immediately active. This is also the case when content is accessed and utilized, as well as when content isused for its intended purpose. The legal protection of creative works makes possible the recognition of economic and moral rights, the protection of creative works, and the encouragement of creative activities, innovations, and investments. This also facilitates theprotection of creative works. In addition to these advantages, legal protection for creative works helps to ensure that they will be accessible to future generations. This is done to maximize the potential in terms of investment, creativity, and innovation that can be realized from it. In addition, this particular form of legal protection contributes to the expansion of human knowledge, which is a significant objective. Protecting one's intellectual property, such as copyright, computer programs, computer software, trademarks and domain names, patents for computer program or software, and the numerous works found in cyberspace, requires a heightened awareness[50]. In recent years, the protection of intellectual property rights on the internet has become an increasingconcern due to the significant disruption that the internet has caused to people's conventional knowledge of the norms that regulate intellectual property laws. This is because people's conventional understanding of the Internet has been significantly altered. This is due to the fact that the internet has made it more difficult for consumers to find information about intellectual property laws. Due to the invention of the internet, this is the case. The proliferation of the internethas had a significant impact on our capacity to comprehend the underlying principles of intellectualproperty laws. This is because the Internet has

[50] Sudheer, Copyright on Internet: Issues and Challenges, Intellectual Property Rights, 1st edn, (New Delhi : Serial Publication, 2007)

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made it easierfor people to steal other people's labor. Before conducting a legally admissible investigation into the impact of the Internet on the infringement of intellectual property rights on the Internet, one must have a firm understanding of the relationship between information technology and intellectual property rights. This is required in order to undertake an investigation into the impactof the Internet on intellectual property rightsviolations on the Internet. This is required in orderto conduct an appropriate legal evaluation of the impact the Internet has on the infringement of internet-based intellectual property rights.

5.2 THE IMPACT OF INFORMATION TECHNOLOGY ON CONTENT CREATION, DISTRIBUTION, AND USE IN CYBERSPACE

In recent years, technological advancements associated with the internet and digitization have had a significant impact on the monetary rewards creators can earn and the expenses they must incur to bring their works to market. The transition from physical CDs to digital downloads is one of the most prominent examples. This holds true for both of these characteristics. In many instances, extensive digital duplication and distribution can be detrimental to sales and reduce the amount of money that authors can earn for a given level of copyright protection. Replication and distribution of digital content are conducted in a format that is not subject to the same physical limitations as physical copies. This is the case, in contrast to the situation with physical reproductions of the item. As digital products gradually supplant physical ones, marginal production and distribution costs have drastically decreased and, in some cases, shifted to intermediaries. This shift is a result of the increasing prevalence of digital products. This is becauseit is much simpler to duplicate a digital file than a physical one. This is because it is considerablysimpler to reproduce a digital file than a physical one[51]. This trend can be attributedin part to the growing familiarity of the general population with the practice of making online purchases. Professor Pamela Samuelson, widely regarded as the most prominent copyright attorney in the United States, has cited the following digital technology-related obstacles to the preservation of intellectual property:

a) Ease of Replication: Both the technology required to create a digital work and the hardware required to view or use the work can be used to produce numerous "perfect" copies of the original work. Due to the fact that digital works are stored in a format that does not require physical storage media, this is the case. The fact that this is one of the many benefits of using digital media is itself

[51] Tayal, Proof.Vimlendu, Cyber Law Cyber Crime Internet and E-commerce, 1st edn, (Jaipur: Bharat LawPublications,2011)

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one of the many benefits of using digital media. There are a number of advantages to using digital works, including the fact that this is one of them, and this is one of those advantages.

When using network-connected devices, it may be easier to commit large-scale acts of larceny against intellectual property for two reasons: a) the stolen information can be sent and used extensively, and b) the stolen information can be used extensively. This is because the material has considerable implementation potential in a variety of contexts. Due to ongoing research and development efforts, as well as the adoption of high-bandwidth fixed and mobile networks capable of transmitting "multimedia" works with rich content, this procedure has been significantly streamlined.

c) The malleability of digital media: Users of digitally preserved works can readily make modifications, add extensions, and engage in other forms of modification because the works have been digitally stored.

Once each composition has been converted to code, there is no longer any distinguishable difference between them. As a result, it is not difficult at all to combine multiple digital works into brand-new items, such as those classified as "multimedia." This is an additional aspect of the phenomenon known as convergence, which refers to the merging of multiple media, technologies, and networks in domains such as the Internet, digital television, cable services, and similar industries.

The fact that it is now possible to store an entire library on a handful of CD-ROMs facilitates the process of creating new literary works and graphic collections, resulting in a significant productivity boost. Consequently, more individuals have access to and can utilize digital libraries. This holds true for all forms of communication, including written and electronic ones. Due to the fact that a single CD-ROM can contain the same amount of information as an entire library's worth of books, this concept can be realized. Thanks to the inclusion of new search and connecting functions, it is now much simpler to connect the domains of other websites[52].

[52] Verma, S.K. and Mittal, Legal Dimensions of Cyberspace, Indian Law Institute, (New Delhi ,2004)

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5.3 WORKS IN THE COPYRIGHT REGIME

The most commonly used definition of copyright characterizes it as the authorization to reproduce the protected work. When an original piece of work is created, copyright protection is automatically granted to the author. At this time, the work in question satisfies the copyright statutes' requirements for legal protection. The primary issue in Carey v. Kearsley is whether or not original expression ought to be protected by copyright laws. One of the primary objectives of the current system of intellectual property rights (copyright) is the protection of original works from being viewed, copied, or transmitted in any other manner. Depending on the apparatus or mechanism employed, the observer may perceive these works either directly or indirectly. The regulations on intellectual property protect works written by their authors in any format that allows them to be read, reproduced, or transferred. It does not apply to any concept, method, method of action, technique, system of operation, idea, or discovery unless there is a physical form involved. Copyright is considered to have been established when a "work is created (or fixed)," which can occur either physically or digitally. Section 14 of the Copyright Act of 1957 defines "copyright" as the exclusive right to perform or permit others to perform any of the following acts with respect to a literary, dramatic, or musical work: republishing the work in any form, publicly exhibiting the work, performing the work, or distributing the work. In the case ofa literary, dramatic, or musical work, this definition pertains to a person's ability to perform or permit others to perform any of the aforementioned acts[53].

5.3.1 The protection of the computer program's associated intellectual property rights

As more time has passed, people have started to use the term "cyber" to describe manufactured memories and settings. In addition to this, it can refer to the environment in which particular activities take place, such as the environment in which a person keeps their memories. As a consequence of this, we can interchangeably use the phrase "process environment." As a result of the spread of new technologies, there has been an increase in the number of works that are based on the internet, computer programs, computer databases, and surroundings based on computers, as well as an expansion in the variety of these works. Understanding copyright in respect to computer programs and software, databases, and a variety of cyberspace-based works are essential things to think about in terms of intellectual property rights in the digital age. Enhancing one's

[53] Vinod Sople, Managing Intellectual Property-The Strategic Imperative, (New Delhi: Prentice Hall of India, 2006)

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understanding of copyright is of the utmost importance and need to be emphasized as such because of its significance. The terms "computer program," "Source Code," and "Object Code" are all protected by copyright, as are the terms "structure," "sequence," and "organization," as well as the terms "screen displays," "general flow charts," and "menu structure." This may be construed as literal copying if there was a strong resemblance between the copied source code and the replicated object code. Copyright safeguards the followingphrases: "computer program," "Source Code," and "Object Code." This conclusion was arrived atas a direct consequence of the myriad of occurrences that took place in relation to the matter at hand. It was also ruled that copyright remained to exist not only for individual programs but also for collections of all applications. This was a significant finding. This was an event that should not be overlooked. This is an incidence that simply can't be disregarded for any reason. In order to arrive at this decision, not only the compilation but also each individual program was scrutinized. During the course of the conversation, this fresh and important knowledge was provided to each and every person of the audience. The government of India has recently passed legislation regarding intellectual property, and one of the provisions of this law protects digital copyrights in digital media. The concept that written instructions for computers may be regarded as "works of literature" is a relatively recent one. The Copyright Act of 1957 includes a section that is commonly referred to as the "Literary Works Clause." This clause ensures that "literary works" are afforded the same level of legal protection as other "literary works." The terms "Computer" and "Computer Program" can be applied to any electrical or analog equipment thatis able to process information, as stated in the Copyright Act of 1957. With the passage of this law, the definition of "literary work" was broadened to include "computer programs." The word "computer software" is used to describe, in the vast majority of cases, to a collection of instructionsthat, when carried out by a computer in the appropriate order, enable the machine to carry out a particular task. "A group of instructions that, when carried out by a computer, will result in the device carrying out a particular operation or accomplishing a particular goal.""A computer program is a set of instructions that can direct a computer to carry out a specific task orachieve a specific result," says Wikipedia. "A computer program is a set of instructions." It is possible to record these instructions in any format, even on a medium that is readable bymachines, and they can take the shape of words, codes, or schemes. The instructions can also be recorded on a machine-readable medium. A "Computer Programme" is defined as "a set of instructions capableof causing a computer to perform a particular task or achieve a specific result." [C]omputerprogrammes are used to automate repetitive tasks. This is the meaning that is intended to be conveyed by the term "Computer Programme." This explanation has been offered for your

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benefit so please accept it. The phrase "computer software" is only one of the many phrases used in the computing industry that cannot be described in a succinct or straightforward manner. In contrast, it is generally accepted that the statement applies to computer programs and databases in addition to their preparation materials and any paper or electronic documentation that is associated with them. This is the case despite the fact that the expression was originally intended to refer to the materials themselves. This reading of the phrase is what linguists mean when they talk about the "generally recognized" interpretation of the term. The vast majority of people are of the opinion that this assessment is accurate. Both user manuals and manuals for people who are responsible for the maintenance of the program are included in this category of material. In addition to this, it might include additional works that have been digitally preserved, as well as interfaces, programming languages, and software tools that are utilized in the process ofbuilding software systems. Here is a rundown of the software's three individual parts, as shown inthe following list[54]: It is customary to abbreviate the additional elements as "option (c)," which is also a common acronym. In addition, web pages are in the process of being incorporated into the operational definition of software, which is the subject of an ongoing investigation.

At this stage in their development, computers cannot comprehend the vast majority of the world's languages. They can only comprehend what is commonly known as "machine language" or "machine code," which is essentially a series of ones and zeros. Using punch cards or machine code was the preferred method for algorithm creation in the early days of computer history. Either the punched or unpunched receptacle may have provided the computer with the necessary data to complete the task. In order for the user to complete this task, they were required to exert a substantial quantity of effort and wait for an extended period of time. Even if the computer were capable of grasping such a program, an inexperienced programmer would have a difficult time comprehending what the program is attempting to achieve. The Copyright Act classifies the source code of a computer program as a literary work; therefore, copyright laws continue to protect the code even if it is readily accessible to the public or published. This is due to the fact that the Copyright Act considers source code to be the same type of original work as other forms of literature. This is true regardless of whether or not the code has been modified. The source code, on the other hand, is typically never made available to the general public because it is regarded as a trade secret and is therefore legally shielded from public view. The Act recognizes as "literary works" not only computer databases, but also computer programs, tables, and compilations created

[54] Vinod, Sople, Managing Intellectual Property-The Strategic Imperative, (New Delhi: Prentice Hall of India,2006)

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on computers[55]. If a computer program is written in a format that allows itto be stored on a CD, floppy disk, or other data storage medium, it could be considered a "literary work." On occasion, a piece of software such as this is referred to as a "work of literature." Individual files and components of programs are not protected by intellectual property law, whereas entire computer programs and portions of those programs are. Comparableto protecting the novel as a whole as opposed to each chapter as a distinct literary work in terms of the overall value of the work. This is due to the fact that the novel has a greater aggregate valuethan its individual chapters. Copyright legislation serves the purpose of preserving the original nature of computer programs. This function does not safeguard the privacy of any filesor programregions that you access in any way, shape, or form. A number of requirements must be met in order for a computer program to be eligible for legal protection under the copyrightlaw. If these conditions are met, legal protection will be available for the computer program. Thiscriterion requires a variety of characteristics, including originality, expression, and the ability to fixate.

5.3.2 The Scope of Computer Program Legal Protection

(i) It is possible to conduct research on the following categories of protection in the sphere where computer programs are utilized:

Article 10.1 of the TRIPS Agreement makes it abundantly clear that both the source code and object code of a program are protected by copyright. This contract provision is straightforward to comprehend.

(ii) The degree of similarity between each User Interface and the others: In John Richardson Computers Ltd. v. Flanders, the defendant, a former employee of the plaintiff, created similar software for his new employer. Plaintiff alleged that the defendant's actions violated intellectual property laws. The plaintiff has initiated the legal procedure by filing a lawsuit against the defendant. The plaintiff contacted the defendant about a possible employment opportunity. The question that must be answered is whether or not it is appropriate to compare the graphical user interfaces of the two distinct software applications. The court ruled that intellectual property laws in the United Kingdom protected both literal and non-literal aspects of an individual's identity. The user interfaces of the two programs were comparable, despite the fact that they were created using

[55] Viswanathan, Apama., Cyber Law Indian & International Perspectives on key topics including security, E-commerce, Cloud Computing and Cyber Crimes, 1st edn, (Nagpur :Lexis Nexis Butterwrths Wadhwa, 2012)

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different programming languages and therefore were not identical in the sense in which theword "identical" is used here. Despite the similarity of the user interfaces of the two programs, this was the case[56].

In Ibcos Computers Ltd. v. Barclays Mercantile Highland Finance Ltd., it was discovered that the program had been copied word for word. Similar structures, module configurations, and source code were utilized in this instance of duplication. In addition, it has been demonstrated that elements of non-literal software structure and design are susceptible to copyright infringements because they share similarities and are similarly structured. Earlier, a series of examples were provided to illustrate these parallels. They are susceptible to intellectual property infringement due to their similarity to other objects. In order to reach this conclusion, a comparison and contrast of two distinct programs was conducted. To illustrate this point, analogies very similar to those used in other examples were employed. Consideration was given to the fact that literary works, such as a book, contain both literal and non-literal components, such as the plot and character development, respectively.

The at-issue software in the case of Navitaire Inc. v. Easyjet Airline C had a similar "look and feel" to another application, but performed its functions differently. The complaint was lodged with the United Kingdom court with jurisdiction over the matter. The judge ruled that Navitaire lacked the legal standing to assert ownership of the copyright for the instructions used by the other program. It was argued that the similarities between the command names in the computer program and those in the other software violated the copyright of the other software. The argument was based on the fact that the command names of the computer program were quite similar to the command names of other software. This assertion was supported by evidence demonstrating that the computer program's command names were identical to the command names of other applications. The argument was based on the observation that the names of the computer program's commands were somewhat similar to the names of commands utilized by other software. The court determined that command names, which do not contain any literary elements, are a crucial element of an ad hoc programming language. In the Recital of the 1992 European Union Directive on the Legal Protection of Computer Programs (Directive on the Legal Protection of Computer Programs), programming languages were accorded a one-of-a- kind exemption from intellectual property rights. This regulation was issued in response to the realization that programming languages are,

[56] Wilson, Caroline., Nutshells Intellectual Property Law, 2 nd edn. (London: Sweet & Maxwell Limited, 2005).

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by definition, public domain resources. In 1992, for the very first time in human history, individuals were given the opportunity to qualify for this exemption. Following a hearing, the court determined that the command names could not be protected as intellectual property under the law[57].

As intellectual property, only non-literary elements with an originality component, which may include any of the following, will be considered for protection. The Court of Justice of the European Union ruled in SAS Institute Inc. v. World Programming Ltd. that the Berne Convention does not protect the form, functionality, programming language, or graphical user interface of a computer program. This decision was made in light of the situation at hand. This decision was made after meticulous consideration of the present circumstances. The BerneConvention protects both the source code and the object code as literary works, but not the forma computer program can take. This conclusion was reached as a consequence of the ongoing dispute between SAS Institute, Inc. and World Programming Ltd. This conclusion was reached due to the fact that the Berne Convention protects literary works exclusively against piracy and other forms of intellectual property infringement. This task has been completed to the best of its ability in accordance with Article 1(2) of the EU regulation on the Legal Protection of Computer Programs, which requires compliance with the regulation. This task was completed in conformance with the instruction.

5.4 ACCESS TO DATABASES AND INTELLECTUAL PROPERTY

A database is a collection of data that has been structured in a methodical way for the purpose of making information retrieval more efficient. The item in question is almost likely a computer-readable digital file, and the likelihood of this occurring is extremely high. It is essential to comprehend that a database and a database system are not the same thing. A database system is the program or component of software that is used to manage a computer-stored database. Database management systems are similar to database systems, but database systems should not be confounded with database management systems. A database system can also be referred to as a database administration system. Database management systems are primarily responsible for the administration and organization of databases. There is a relationship between database management systems and database systems, but database management systems and database systems are not the same entity. This distinction must always be kept in mind when

[57] Wilson,Caroline., Domain Names and Trademarks: An Uncomfortable Interrelationship" in Lillian Edwards andCharlotte Waelde Law and the Internet, 3rd edn, (Portland: Hart Publishing,2009).

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contemplating the information in the database that must be kept confidential. A computer database is a representation of information, knowledge, facts, concepts, or instructions that are either in the process of being coded and generated by a computer, computer system, or computer network, or have been generated in the past by these types of systems. The information, knowledge, facts, concepts, and instructions contained in an electronic database can range from simple facts and figures to complex concepts and instructions. A database consists of data, knowledge, facts, concepts, and instructions. This can range from task-specific instructions to facts and concepts. This information may consist of ideas and facts, or it may be in the form of step-by-step instructions for carrying out a procedure. Information, knowledge, facts, concepts, and directives are stored in a database. There may be facts, concepts, and knowledge within information. In addition to general information and concepts, this section may also contain task- specific instructions. There is a possibility that this file is an image, but it could also be an audio or video file. A database is a compilation of records with at least one field per record. Each database record is referred to as a row[58] (i.e. pieces of data) about an object, such as anindividual, organization, city, product, artwork, recipe, chemical, or DNA sequence. It is possibleto store a broad variety of objects in a database, such as people, places, products, artwork, recipes, and DNA sequences. This directly necessitates implementing copyright protection for the article database in accordance with the "Indian Intellectual Property Laws." Telstra Corporation Ltd. v. Desktop Marketing Systems Pty Ltd. established that a minimum level of inventiveness and originality is required to obtain legal protection in Australia. Thisdetermination was made by the magistrate in the case. This is demonstrated by the petitioner's accomplishment in obtaining legal protection. The Copyright Act of 1988, which went into effectin 1988, recognizes databases as literary compositions requiring legal protection. This is due to the passage of the Copyright Act of 1988. The Copyright Act defines "literary work" as "a table or compilation expressed in words, figures, or symbols." In this instance, not only the White Pages and Yellow Pages of Telstra, which are accessible to the general public, were considered, but also a number of the organization's unpublished header volumes. This was done to guarantee accuracy. This was done to guarantee the accuracy of the results. According to the Indian Copyright Act of 1957, "databases" are treated similarly to "literary works." This specific provision can be found in section 14(a). This section of the Act outlines the requirements that mustbe met before an original creative, literary, dramatic, or instrumental work in India can be legallyprotected by a copyright. Before the work can be conferred copyright protection, these

[58] A. Michael Froomkin, ICANN's "Uniform Dispute Resolution Policy"-Causes and Cures,67 Brook.L.Rev.605,2002.

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requirements must be satisfied. These prerequisites must be reached before intellectual property law can provide protection for the work. India will immediately begin the process of constructing a copyright regime applicable to all previously unpublished works of aesthetics, theater, and literature upon the implementation of this provision. Author-created works in the categories of literature, drama, music, and aesthetics are all eligible for copyright protection under this section of the Act. According to Section 63B of the Indian Copyright Act, a person faces a minimum of six months and a maximum of three years in prison if they willfully use a computer that contains a copy of a computer program that violates the intellectual property rights of another person. This sentence may be enhanced up to three years in prison. If the judge so chooses, this sentence could be increased to a maximum of three years in prison. According to this rule, the minimum possible sentence is six months and the maximum potential sentence is three years. If a person is using a computer that is known to contain a copy of a computer program that infringes on the intellectual property rights of a third party, he or she is subject to the penalties enumerated in this section. These sanctions may include a fine and potential jail time. The magistrate has the discretionary authority to increase the severity of this already severe punishment if they so choose. The term "data" refers to a structured representation of information, knowledge, facts, concepts, or instructions that have been handled by a computer, computer system, or computer network in the past or are presently being processed by one of these three entities. Data can also refer to information that was previously processed. In certain contexts, the term "data" can also refer to the processed actual information, knowledge, facts, concepts, or instructions. The term "data" can be used to refer to the actual discussed information, knowledge, facts, concepts, or instructions. This representation is capable of being stored in any of the aforementioned locationsand formats, including computer outputs, magnetic or optical storage media, punched cards, or any combination of the aforementioned storage media and forms. It is possible to save this representation in any of the previously mentioned locations and file formats. This representation may be stored in any of the aforementioned locations and file types. This concept is reflected in the Information Technology Act[59], which was passed in 2000 and incorporates section 2(o), among other provisions. In the year 2000, this statute was passed into law. In the Indian Legal System, the term "computer Data Base" was initially defined in the information technology Act, 2000 under Section 43 explanation (ii) as a representation of information, knowledge, facts, concepts, or instructions in text, image, audio, or video data that is being or has been formally prepared or produced by the

[59] Abhijit Mukhopadhya;The Information Technology Act 2000; An Overview; Charted Secretary; Vol XXX No.8;Aug.2008

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computer, computer system, or computer network and are intended for use in the computer, computer system, or computer network. This was the first time in the Indian Legal System that the term "computer Data Base" was used. This is an important definitionbecause it signifies the beginning of the term's use in the Indian Legal System. The meaning of theterm "computer Data Base" was then explained for the very first time at this point. After much discussion, it was determined that this should be the definitive definition of theterm "computer." Data Base This concept is included in the Information Technology Act, which became a law in theyear 2000 after being enacted as a statute in the year 2000. If a person gains unauthorized access to the system, downloads data, or downloads, copies, or extracts any data or data base or information from the aforementioned computer, computer system, or computer network, he or sheis subject to the punitive measures outlined in Section 43 of the Information Technology Act, 2000.The proprietor or administrator of the computer, computer system, or computer network may alsobe held liable for any resulting damages. Additionally, the proprietoror administrator of the systemmay be held liable for any damages directly caused by their actions. The Information TechnologyAct of 2000 contains a provision that describes potential disciplinary measures. This includes the downloading of any information, data, or databases from a computer, computer network, or computer system. This category also includes the act of transmitting information, data, or databasesfrom one location to another using a computer. Therehas never been an exhaustive and clear explanation of what "computer Data Base" refers to, but that is about to change. Section 66 of the Act imposes criminal penalties on anyone who, withthe intent to cause or knowledge that they are likely to cause wrongful or loss or damage to the public or any person, alters or destroys any information residing in a computer resource, diminishes its value or utility, or otherwise adversely affects it. This could result in a fine of upto $1,000,000 and a prison term of up to 5 years. Depending on the gravity of the offense, this could result in a fine of up to one million dollars and a penitentiary sentence of up to five years. Depending on the severity of the offense, this may result in a fine of up to one million dollars and a prison term of up to five years. Depending on the severity of the offense, this could resultin a fine of up to one million dollars and/or a prison sentence of up to five years. Commonly, the term "hacking," an acronym for "hacking and stealing," is used to refer to all of these unlawful activities collectively[60]."

[60] Aditya Nagarsheth, “Domain Name Disputes”, The Lawyers Collective, (Nagpur:All India Reporter Pvt.Ltd.,May, 2001).

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5.5 CONTENTS IN CYBERSPACE THAT ARE PROTECTED BY INTELLECTUALPROPERTY LAWS

Within the sphere of digital media, a "copyrightable" literary work could pertain to any website, regardless of whether it is accessible to the public or not. Written text materials, graphic images, designs, drawings, video files, news articles, novels, screenplays, graphics, images, Usenet messages, and the distinctive layout of web pages are all protected by intellectual property laws. These laws also protect the content of web pages, such as links, original texts, audio, video, HTML, URML, and sequences of unique markup language. Other media formats, includingaudio files, are not protected by intellectual property laws in the United States. A feeling of assurance despite the possibility of acts of piracy. As a direct consequence of copyright restrictions, the entirety of the information available on the Internet is protected from unauthorized use. In additionto reading, publishing, conducting research, viewing films, listening to music, examining artwork,buying and selling items, viewing government documents, sending and receiving email, downloading software, and receiving assistance with technical issues, it is possible to make new friends and connect with them in cyberspace.Additionally, one can read, write, conduct research, observe films, listen to music, study art, and view artwork. Because more and more information isuploaded and downloaded, and more and more people are joining the pioneers of this daring newworld, cyberspace can be viewed as an evolving living organism. This is because an increasing number of individuals are joining the pioneers of this bold new world. This is because an increasingnumber of individuals are signing up to become pioneers in this daring new world. This is due to the fact that more people are entering this pioneering new industry, which is the primary reason for this development. The factthat fundamental rights are habitually disregarded in contemporarysociety is directly attributable to the widespread use of the internet, which should give contemporary society great cause for concern. This category includes uploading and downloading copyrighted works and other content,framing and linking copyrighted material, and other similar activities.

5.6 WORKS THAT ARE AVAILABLE TO THE GENERAL PUBLIC

According to the Copyright Act, these are the works for which the proprietor has given up reproduction rights. The inability to reproduce these compositions renders them unavailable. This is not something that can be replicated in its current state. During the course of this endeavor,both analog and digital formats are utilized concurrently. Numerous literary and creative works, including those by William Shakespeare and Rabindranath Tagore, provide examples of

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excellence. Libraries are not restricted in their ability to reproduce these works, nor are they required to obtain permission to digitize any of these works. Libraries are allowed to do so. Both of these are free for libraries to implement. Both of these are free to implement in libraries. After the digitization process is complete, a new group of copyright issues will surface. Numerous judicial decisions have addressed the question of whether or not a copyright isautomatically granted to newly published digital works, and each of these cases has reached a distinct conclusion on the matter. This viewpoint's pervasive acceptance has directly led to an increase in the number of people who believe that the forma should receive the same level of legal protection as other forms of original expression. Even when their works are archived in a digital format, copyright holders employ a variety of technical safeguards to ensure that their creations have not been altered from their original state. This is done to safeguard the company's intellectual property. This protects their works against infringement. There are numerous formsof software security, such as cryptography, watermarking, copy control symbols, macro vision, etc.

5.7 THE POTENTIAL CYBERSPACE CONFLICT BETWEEN TRADEMARKS ANDDOMAIN NAMES

In order to fully comprehend the complexities of the law, it is necessary to first comprehend the concept of domain names and how they are utilized on the Internet. When this occurs, and only then, will it be possible to comprehend the law. To ensure that enterprises and individuals can connect to the Internet, the government assigns them alphanumeric and numeric addressesknown as "domain names." Although these addresses only contain letters or numbers, they are still legitimate. Because they are utilized on the Internet, domain names are the most crucial and fundamental identifiers of Internet users. In response to the growing demand for interregional data transit during the 1970s and 1980s, the Domain Name System (DNS) was ultimatelydeveloped as a result of a series of experiments conducted in the 1970s and 1980s. Tests were conducted during those decades. These experiments were conducted in response to the increasing demand for interregional data transit, which necessitated the need for such services. This strategyemploys not one but two distinct identifiers, a domain name and an Internet Protocol address. A domain name is a human-readable identifier, whereas an IP address is merely a series of numbersthat can only be understood by computers. The concepts of domain names and Internet Protocol addresses are distinct but related. The format of an IP address can be used to distinguish betweenthe two. The Domain Name System is organized as a root and a tree, with levels extending from Top-Level

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Domains, Second-Level Domains, etc., all the way down to Nth-Level Domains[61], which is the host computer's name. Each tier's level is represented by a number that is always greater than the preceding one. The name of the computer serving as host occupies the topmost position in the hierarchy. This name is at the top of the list. Subdomains, which are sublevels of ahierarchical structure, are utilized to further subdivide these levels into more specific categories. Subdomains are an illustration of a hierarchical organization. Subdomains are the sublevels of a hierarchical system. Since the inception of the system that manages domain names, a connection between trademark law and the system that manages domain names has existed. This connection has taken on various manifestations over the years. In particular, this relationship has existed since the inception of the domain name system. Due to the intense competition that exists in this industry, it should not come as much of a surprise that trademarks are crucial in the current market economy. In addition, it has been demonstrated beyond a reasonable doubt that a trademark establishes a connection between a product and a customer-familiar body of information. The ability to utilize this benefit as the proprietor of a trademark is a significant advantage. If there was no trademark to serve as a point of reference, it would be vital to obtain this information through alternative means. This may be accomplished through consultation with a third party. Establishing a connection between a product and a customer-familiar body of information is one of the requirements for obtaining a trademark. This connection between the product and the customer base must be made. In order to obtain this information in a manner that satisfies the requirements of a trademark, it will be necessary to adopt a different strategy. A trademark is a term or symbol that distinguishes the products or services of one company from those of other firms operating in the same industry. As a result, one of the financial benefits of a trademark is typically considered to be a reduction in the price that consumers must pay to accessvital product information. This is due to the fact that a trademark identifies the goods in a mannerthat consumers can readily recognize. When a trademark is present, it is much simpler to recognize essential product information. Utilizing any term or symbol as a trademark and registering it withthe appropriate authorities enables a corporation to differentiate its goods and services from thoseof its competitors on a global scale. The trademark system provides evidencethat the psychologicalsignificance of symbols is legally recognized. It is possible to grant permission for the use of a trademark with a variety of identifiers, such as logos, company names, and packaging designs. This can be

[61] Ann Handley and C.C. Chapman, Content Rules : How to Create Killer Blogs, Podcasts, Videos,Ebooks, Webinars (And More) That Engage Customers And Ignite Your Business, (New Rules Social Media,2010) ,p.76.

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accomplished through the trademark registration procedure. As long as they are utilized properly, trademarks are capable of delivering a numberof positive outcomes. Despite this, the evolution of the Internet has led to the emergence of an entirely new set of challenges. Not only is it one of the most significant transactions, but it is alsoone of the most crucial ones, astrademarks and domain names are inextricably linked[62]. There is a superficial similarity between trademarks and domain names because, like trade names, domainnames are unique, instantly recognizable names that are legally protected by trademark laws. the establishment of criteria for trademark registration. The following is a list of the primary objectives of the legislation governingtrademarks: The general public is protected from being deceived about the source or origin of specific products because this practice distinguishes them from other identical products and, therefore, separates them from other products.

5.7.1 Essential Elements That Should Always Be Present in a Trademark

5.7.1.1 The quality of being distinctly distinguishable

The concept of distinctiveness, also spelled distinctiveness, is essential in trademark law because it is one of the fundamental principles used to regulate the industry. This makes distinctiveness one of the most significant trademark law concepts. In order to be recognized as a trademark, a distinctive device, mark, or other sign must be of a type that makes it clear what is being infringed upon in the event of an infringement and that can be distinguished from other marks used for the same class of products. In addition, the distinctive device, symbol, or other sign mustmake it crystal clear what is being violated in the event of trademark infringement. A trademark must be able to distinguish one party's products or services from those of another in order to qualifyfor legal protection. If it is incapable of doing so, it was never capable of doing so. One of the primary reasons why trademark protection as intellectual property is frequently warranted is that one of a trademark's essential characteristics is the ability to distinguish a product or service createdby one individual from those created by others. This is one of the fundamental reasons why trademark protection is typically required as intellectual property. This is one of the primary reasons why the protection of a trademark as intellectual property is frequently required. This is one of the primary reasons why it is frequently necessary to protect a trademark as intellectual property. Consequently, the capacity of the mark to differentiate the products and services offeredby one person from those offered by another is a crucial factor in determining whether or not the former

[62] Arun Beriwal and Roopali Chaturvedi, “An analytical study of domain name disputes resolution and the scopeand extent of judicial interference”, Vol.II (2004), Corporate Law Journal,

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owner of the mark can retain legal rights in the mark. Two interconnected aspects emphasizethe value of a trademark that incorporates a distinguishing quality. It begins by identifying the specific geographical region in the globe where the production of the goods or the provision of theservices first began. As a consequence, the customer may be able to definitively determine the country in which the product was manufactured. Second, because it does not protect descriptive phrases, it ensures that competitors may use these terms to describe their own products or services;in other words, it permits business owners to freely use the distinctive terminology they have developed for their products. Thirdly, because it does not protect descriptors, it ensures that rivalscan readily use these terms to describe their own products and services. Businesses have a naturaltendency to select marks that are not only capable of identifying the source but also, through the descriptive aspect, may acquire a larger market share for their goods or services than would be obtained by source identification alone. This is due to the fact that marks that can both identify thesource and describe the product or service are more likely to be chosen. This is because consumersare more likely to choose marks that simultaneously designate the source and describe the productor service they are purchasing. Due to the requirement that a mark be unique, businesses receive assistance in their battle against this pattern. Because it is necessary for a mark to be distinctive, businesses are strongly discouraged from selecting marks that are both capable of source identification and descriptive of the source. This is because of the requirements for distinctiveness, which stipulate that a trademark must be at least as distinctive as the source it represents. This is the reason why the situation exists. Consequently, the urge to distinguish oneselffrom competitors is a crucial component. The distinctive quality of a trademark is advantageous for both the company that owns the mark and the consumer who purchases the products or servicesthat bear the mark. This is due to the fact that the primary purpose of a trademark is to guarantee the source or origin of a product or service, which in turn ensures that it meets the customer- established quality standards. This is because it is advantageous for a company to have a trademarkthat is readily recognized by the specific demographic of customers it seeks to attract. The "distinctive requirement" stipulates that the primary purpose of a trademark is to identify the sourceof the goods or services bearing the mark. This is the main purpose of a trademark. This requirement must be satisfied in order for a trademark to have legal standing. This indicates that the primary function of a trademark is to identify the source of the goods or services being offeredfor sale. This suggests that the primary function of a trademark isto identify the source of the goodsor services being provided.

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According to the law governing trademarks in India, applications for the registration of trademarks that lack distinguishing qualities or are incapable of segregating the goods or services in question may be denied. This is because trademarks are required by law to be distinguishable from one another. The capacity to differentiate itself from other trademarks owned by other companies that are conceptually similar to its own is one of the most essential qualities a trademark can possess. It confers a qualification on the trade mark, enabling the mark to meet the requirements for achieving trade mark status. Uniqueness is a broad concept, but it can be broken down into the following categories of distinctive characteristics:

a) a vague or general term; b) a phrase that describes something; c) language-based suggestions; d) a phrase used for speculative purposes; and e) a phrase used to hypothesize about something[63].

People frequently use phrases that are regarded common or generic when discussing a particular category of things. These are abstract concepts that can be applied in a variety of contexts. As a result, a product is its own distinct species, whereas a generic term is the product's genus.

Despite being considered generic when referring to fruits as objects, the term "apple" hasacquired a specific connotation when applied to, for instance, computers. In contrast to its original meaning, which refers to an apple as an object, this usage refers to an apple as a person. Due to the fact that the phrase has taken on a secondary meaning, it is now eligible for trademarkprotection. Any term, regardless of how arbitrary it was to begin with, has the potential tobecome generic ifit is used frequently enough. Even if the term has never been used before, this statement holds true. Despite the fact that the phrase in question has never been used before, this assertion is legitimate. If even a cursory examination reveals information about the product for which the phrase is used as a trademark, then the phrase in question may be considered descriptive. This is because such an investigation would reveal product information. Due to the fact that such an examination would expose confidential product information, it is not permitted. In reference to a phrase, "descriptive" could mean "clearly conveying information about the components, quality, or characteristics of the products or services for which it is employed." Thisis one meaning of "descriptive." This definition is supported by the claim that a phrase is "descriptive" when it functions in the manner described above. In contrast, a mark is considered suggestive if it compels customers to use their imaginations, thoughts, or perceptions to determine the nature of the products or services being

[63] Bains, Manavinder Singh "Software, Sovereignty and the Internet: Circumventing Chaos through Trips", The Columbia Science and Technology Law Review, 4, 2003

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provided. To determine whether a phraseis suggestive, we consider whether it compels the reader to draw conclusions about the nature of the issue using his or her own intelligence, imagination, and observation.

To register these marks as trademarks, it is not necessary to provide evidence that they have secondary significance; this is not a requirement. Rather, this is merely unnecessary. In contrast, this is something that is entirely unnecessary. It is impossible to contend that these words serve no purpose other than to explain what they refer to, given that they are either entirely unique or entirely fabricated. Following our discussion of random and creative markings, we can affirm that the aforementioned phrases qualify for the highest level of trademark protection. This is due to the fact that arbitrarily and subjectively assigned grades have no value in the objectively existing world. Even though no effort has been made to assign these marks secondary meanings, it is still possible to register them as intellectual property due to their distinctive qualities. This is the case despite the fact that no effort of this nature has been made. In some parts of the globe, these identifiers may also be referred to as technical trademarks. However, there are occasions when this is not the case. However, there are numerous instances in which this is not the case.

There is a prevalent misconception that a trademark's value is proportional to the number of registered technical trademarks for the three reasons that follow:

(i) As a consequence of the phrase's characteristics, there is a high likelihood that members of the general public will mistake it for a trademark[64].

(ii) Potential competitors and early adopters of the term require assurances regarding the trademark's validity.

In other words, in accordance with the Walde decision, the general public must refrain from using a counterfeit mark that is similar to a merchant's trademark in order to avoid potential legal repercussions. They may be inherent or acquired through interaction with the environment. (1) possesses a property that distinguishes it from other marks in the same class, or (2) possesses a characteristic that distinguishes it from other fundamentally distinct marks.

As a basis for interpretation, a theory founded on the surrounding environment is utilized. In addition, under Indian law, a trademark application cannot be denied on the grounds that it lacks

[64] Celina, Raffl, The Web as Techno –Social System: The Emergence of Web 3.0.In Cybernetics and Systems",Cybernetics And System (2008)

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distinctive qualities, even if the mark was in use prior to the filing date. This rule applies regardless of whether the trademark was in use prior to the date of registration application. This provision does not apply to trademarks registered internationally. This clause may be modified depending on how the trademark has been used. Therefore, it is unnecessary to establish that the secondary meaning applies if the subject in question already possesses a distinguishing quality. In the case of symbols that are not inherently distinct, ownership and priority of ownership are determined by determining when, where, and how the symbol's secondary meaning emerged. Even if the symbols are not intrinsically distinguishable, this is still the case. In order toaccomplish this, symbols that cannot be distinguished by definition are employed. This group consists of symbols that cannot be meaningfully differentiated due to their composition. When endeavoring to determine a trademark's level of distinctiveness, it is crucial to examine the mark from the consumer's perspective. When determining whether a trademark is distinctive, judges must prioritize the characteristics that the average customer for the relevant products or services in question would recognize as distinctive. Two interrelated aspects contribute to the value of a trademark containing a distinctive quality[65].

It is of the utmost significance to be able to identify the origin of the products or services in question. Consequently, the ultimate purchaser will be able to determine unequivocally the country of origin. Second, the criterion ensures that other businesses may use these phrases to describe their own products or services, which is an essential element of fair competition. It is necessary for there to be equitable competition so that all businesses have the same opportunitiesto market their products or services. This is achieved by removing the protection that was placed on descriptive terms, thereby allowing competitors to use those terms for their own products. In other words, it grants the company's owner the unrestricted right to use the trademark or sign in connection with the sale of its products and services without fear of legal repercussions. In order to achieve this objective, language-based restrictions on descriptive phrases have been removed. Companies have a natural tendency to choose marks that are not only capable of source identification but also, through their descriptive component, have the potential to achieve a larger market share for their products or services than source identification alone could. This is because source-identifiable marks that have the potential to acquire a larger market share for theirproducts or services are more likely to be selected. This is because consumers are more likely to be drawn

[65] Cf.Aberto Bercovitz, "Copyright and related Rights in Intellectual Property and International Trade:The TRIPs agreement",Carlos m.Correa,Abdulqawi A.Yusuf eds.,(Kluwer Law International,1998).

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to a product by its descriptive elements than by its source indication alone. This is because businesses have a natural inclination to choose markings that not only have the ability toidentify the origin of the products, but also contain some sort of illustrative element. To accomplish the highest possible level of profitability, it is preferable for a company to have a larger share of the market for the products or services it offers. This natural tendency is restrained by the need for innovation, which presents an obstacle for businesses to surmount in order to achieve their objectives. The distinctiveness of the trademark does not communicate the product's quality; rather, the brand communicates the location of the manufacturing facility. The jury that deliberated the litigation against Kellogg Company determined that the phrase's primary significance to the product's customers is not the product itself, but rather the customers themselves. This was the conclusion they reached about the case. This conclusion was reached asa component of the case's ultimate verdict. The Trademark Classification Act of 1984 expanded the definition of a trademark to include any term, name, symbol, or device, or any combination thereof, that a manufacturer or merchant uses to distinguish and identify his goods, including a unique product, from those created or sold by others. In addition, the definition of a trademark hasbeen expanded to include any combination of the aforementioned components. In addition, the definition of a trademark has been expanded to include any combination of the aforementioned components. In addition, the definition of a trademark has been expanded to include any combination of the aforementioned components. The addition of "any combination thereof" allowed for the passage of this amendment[66]."

5.7.1.2 Deceptive Similarity

The question of whether the identifiers can be confused with one another must be addressed, and a prompt response must be provided to this inquiry. A deceptive similarity is, according to trademark law, a resemblance that is so strikingly similar to another that it confuses consumers or has the potential to do so. The Act defines "deceptively similar" as follows: "a mark shall be deemed to be deceptively similar to another mark if it resembles that other mark so closely that it is likely to deceive or cause confusion." Therefore, it appears that a flawless match between the two marks is not required to pass the examination. If the test demonstrates that the average individual is capable of misinterpreting the communication, one can conclude that the similarity is intended to deceive. If the marks are not identical but merely similar, the plaintiff bears the burden

[66] Chad D.Emerson,Wasting Time in Cyberspace: The UDRP's Inefficient Approach Toward Arbitrating Internet Domain Name Disputes,34 U.BALT.L.Rev.161, 2004.

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of establishing that the defendant's mark is deceptively similar to the plaintiff's mark. In the event that the markings are identical, the defendant bears the burden of proof. If it is impossible to distinguish between the traces, the defendant will bear the burden of proof. This shows that the plaintiff has the burden of proof, which is not a simple concept to prove;specifically, that the similarity is likely to cause confusion or ambiguity in the marketplace. In the event that it is determined that the traces are identical, the defendants' case against the plaintiff will have considerable merit. In the end, the magistrate will make a determination on theissue of similarity, taking into account multiple perspectives. The only way to protect unregistered trademarks or insignia that cannot be registered as trademarks is to file a lawsuit alleging that the unregistered trademark bears a striking resemblance to a registered trademark.

This is the only method available for protecting unregistered trademarks or insignia that cannot be registered as trademarks. This is the only method for protecting symbols or unregistered trademarks that do not qualify for trademark registration. This is the only option available when it comes to safeguarding trademarks that do not qualify for registration. The plaintiff is responsible for providing evidence that the mark has been used extensively enough to generate significant goodwill for the entity associated with the products bearing the mark. If the plaintiff fails to comply, the court may determine that he or she has no legal recourse. When used in this context, "property in trademark" refers to the situation in which a business proprietor acquires a property right in a distinctive trade mark only through the use of the mark on or in relation to specific objects. This may occur when the proprietor employs the mark on or in conjunction withthe in question objects. According to common law, it makes no difference how long the business proprietor has used the trademark or how widespread his activities are; such conduct is always permissible. It is also irrelevant how long the business proprietor has been using the brand.

The term "deceptively similar" refers to similarities that are either not identical or identical, but feature a visually or aurally discernible deceptive characteristic. This deceptive characteristic distinguishes the two entities under consideration. These similarities may be considered "deceptively similar" because they are not identical or precisely the same. Due to this deceptive quality, the similarities could be misinterpreted as indicating that the two objects are identical. Regarding this potentially confusing characteristic, it is possible to distinguish between two distinct objects by contrasting their tones or appearances. Given that the element of confusion involves the mental state of the customer who, upon seeing the mark, concludes that it belongs to

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a different company, it is possible to conclude that the infringers intend to profit from the prior user's interposition and goodwill. This is due to the fact that the element of perplexity involves the customer's mental state. This is due to the fact that they mistakenly assume the brand is associated with a different company. This is because there is a correlation between a component of the perplexity being experienced and the client's mental state. This creates the impression that the infringers wish to profit from the prior user's intervention and the benevolence they've established. Throughout the entire Act, "deceptively similar" and "nearly resembling each other" are used interchangeably. This is because both phrases are synonymous. This is because both sentences convey the same meaning. Both terms refer to entities that are located in closeproximity to one another in their respective locations. Moreover, taking into account the context in which terms like "similar marks" and "similarity of marks" are used, it would appear that the similarity in question is apt to lead to confusion. The context in which these phrases appear informsus that this is the case. This is owing to the extensive use of phrases like "similar marks" and "similarity of marks." In other words, the only difference between these expressions and "deceptively similar" is that "deceptive similarity" implies the possibility of deception.

When determining whether a likelihood of confusion exists, the court must always and without exception evaluate the psychological reaction and mental association that the mark will generate in the mind of the average customer when that customer purchases the goods under normal circumstances and trade conditions. In other words, the court must evaluate the mental response and association that the mark will evoke in the average consumer. This is due to the fact that the court must always and without exception consider the psychological response and mental association that the mark will evoke in the mind of the average consumer. This is due to the fact that the court must always evaluate the psychological response and mental association that the mark will induce. This is due to the fact that the court must constantly consider the psychological response and mental association the mark will produce. This is because the mark in issue is a registered trademark. This is due to the fact that the court must always consider the psychological reaction and mental association created by the mark. This is because the mark in issue is a registered trademark. Because the disputed mark is a registered trademark, this result isinevitable. The distinction between confusion and deception is of the uttermost importance, and the two terms must under no circumstances be confused. The investigation into the natural meaning of the phrase "Parker Knoll" led to the formulation of two observations based on the investigation's findings.76 The allegedly infringing mark must first bear a striking resemblanceto the registered trademark,

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such that consumers are likely to be perplexed or misled. Toestablish a prima facie case of trademark infringement, this is required. In other words, for there to be an infringement, the infringing mark must be confusingly similar to the registered mark. You are not required to infer that the user intended to mislead or cause confusion in order to determine what he meant, nor are you required to be able to discern the user's mind. It is not necessary for an activity's intended purpose to be bewilderment for confusion to result from the activity. Confusion can arise regardless of whether or not this was the desired outcome. When considering the potential repercussions of this, it is necessary to consider the daily activities of individuals. If it turns out that the man did attempt to mislead or create ambiguity, you will give him credit for achieving his goals because you will recognize that he was successful and you willadmit that he deceived you or created ambiguity. You will give him credit for achieving his goalsbecause you will recognize his accomplishment and give him credit for achieving his goals. Due to how the item operates, you will have no hesitation in asserting that others will be misled or perplexed as a result of his use of it. If, on the other hand, he had no such intent and was completelytruthful, you will determine whether or not he violated the law by analyzing the potential for obfuscation or confusion. If he was completely honest, you will discover that he did not violate the law. Assuming that he did not intend to delude us, we can conclude that he was completely trustworthy[67].

Second, it is crucial to distinguish between intentionally and unintentionally misrepresenting someone. Both of these circumstances could lead to someone being misled. Significant distinctions exist between these two entities. When one person deceives another, the individual who is being deceived must first lie to the deceiver. This one characteristic serves to distinguish between these two distinct entities. First, he gives him a false impression of something, then he convinces him that the false impression is accurate despite the fact that it is false. He manipulateshim in this manner. Even if he is not doing so intentionally or knowingly, the fact that he is engaged in this activity raises the suspicion that he is attempting to deceive him into believing something that is not accurate. This is the case regardless of whether he is acting consciously or intentionally. Another option is for him to plant seeds of doubt in his mind without ever altering his perspective or giving him a reason to believe the other person is dishonest. Given what transpired, he would not have given him any reason to suspect the other individual of being dishonest. Even after being told the truth, the whole truth, and nothing but the truth, it is possible for him to remain perplexed.

[67] Christopher R.Perry."Trademark as Commodities:The "Famous" Roadblock to Applying Trademark DilutionLaw in Cyberspace,32 CoNN.L.Rew.1127,2000

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This will not be his error; rather, he will lack the knowledge or ability to distinguish it from other categories of truth with which he is familiar, or he will make no effort to do so. This is not a mistake on his part. This is not an error made by him in any way. He will bear no responsibility for anything. In this manner, it is impossible to accuse him of committing any type of error.

"deceptively similar" is defined by the Lanham Act as "a mark that resembles another mark so losely that consumers are likely to be confused or misled by the two marks." A mark is considered "deceptively similar" to another mark if it resembles it so closely that consumers are likely to be deceived or misled by the two marks. The likelihood that a puzzled or perplexed state will result in an unsatisfactory purchase decision increases. Customers risk being misled or confused due to the increased likelihood that one of these outcomes will occur. In accordance with this rule, a mark is considered deceptively similar to another mark if, when viewed in close proximity to the other mark, the two marks are effectively indistinguishable. This supports the notion that the degree of similarity between the two entities is not constant, and it does so in both direct and indirect ways. In order for there to be a deceptive resemblance between two objects, there must be a similarity capable of causing confusion or being misleading. Only then can a deceptive resemblance exist.

The phrase "contained in subsection 2(1)(4)" has a vast spectrum of applicability and does not restrict or limit the number of possible parallels. Its scope is incredibly extensive. The multiple parallel categories that can be evaluated in this context are therefore in no way constrained or restricted by this clause. Due to this, the court would be able to evaluate the physical similarities between the two parties in addition to their linguistic similarities. The degree to which the ideas conveyed by the markings are comparable to one another is an additional criterion that should not be disregarded in terms of its significance. It is possible, when determining whether or not two distinct devices are identical, to consider whether or not they have a similar "net impression"and whether or not the terminology or legends used to characterize the item are also similar. Because the objects being compared belong to distinct groups, it is impossible to make an educated estimate as to whether or not the required degree of similarity will be achieved. An exhaustive analysis of the merits of each and every case must be conducted on each oneseparately. Consequently, it is highly unlikely that using historical precedents to determine whether a current event has a fictional resemblance to a fictional scenario will prove useful. Each has independent value due to the significant role it plays in the formulation of the larger concept. We say that a trademark has

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deceptively similar characteristics if there is a chance that some members of the general public could be misled or duped by it. The reason for this is that the two trademarks have a substantial degree of visual similarity. In order to determine whether or not two brands are confusingly similar, it is necessary to take into account a number of distinct characteristics. This category includes elements such as the brand's essence, the degree to which the two brands are comparable, and any visual or linguistic similarities.

5.7.1.3 A Look at Several Additional Products

The third fundamental element of the legal framework governing trademarks is the similarity between products or identical descriptions. This structure is accountable for trademark protection. It is impossible for any two trademarks to be confounded with one another due to this principle. This concept functions as the basis upon which trademark legal protection is constructed. If a person manufactures goods or provides services that are similar to those produced by another person and also uses a mark that is identical to or similar to the mark used by the second person, the first person will be guilty of taking advantage of the reputation that the second person has earned through his trade by using a mark that is identical to or similar tothe mark used by the second person. This is due to the fact that the first party is capitalizing on the excellent reputation that the second party has built for himselfin his line of work. This is due to the fact that the first party produces or provides comparable products or services to those offered by the second party. This is also partially attributable to the larger market share held by the first party.[68] This is the case due to the fact that the first party is profiting from the reputation that the secondparty has established in his business as a direct consequence of his work in that sectorof the economy. In this hypothetical scenario, the first party will act improperly andunlawfully by using a mark identical to that of the second party on functionally equivalent products. Whenever there is a dispute involving identical marks and comparable products or services, the law requires the courts to operate under the assumption that consumer confusion is a possibility. Whenever a dispute involves identical marks and similar goods or services. This is because the law recognizes thelikelihood that consumers will become perplexed. The particulars of each setting determine whether or not two distinct products or services can be categorized as being comparable. According to the second sentence of Section 29of the Trade Marks Act, "a registered trade mark is infringed by a person who, not being a registered proprietor or a person using by way of permitted use, uses in the course of trade, a mark

[68] Copyright in Digital Era: Building Evidence for Policy. Washington DC: National Academic Press.

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which, because of-" (i) its identification with the registered brand and resemblance to the products or services covered by the registered trademark; or (ii) the degree to which it resembles the registered trademark, as wellas the identityor resemblance of the goods or services associated with the registered trademark; or (iii) its identity with the registered trademark and the identity of the goods or services covered by such registered trademark is likely to cause public confusion, or which is likely to be associated with the registered trademark. "a person who, not being a registered proprietor or person using by wayof permitted use, uses in the course of trade a mark which:" (i) its identity with the registered trade mark and the identity of the goods or services covered by such registered trade mark; and (ii) its identity with the goods or services covered by suchregistered trade mark.

a) the trademark is identical to or substantially similar to the registered trademark;

a) the trademark is used in connection with goods or services other than those for which it was initially registered; and c) the trademark is not descriptive of the products.

(c) the registered trademark has a reputation in India, and the unauthorized use of the mark either exploits the distinctive qualities of the registered brand or brings the registered brand's reputation into disrepute.

First, there is a possibility that customers will be confused due to the identity and similarity of the marks, as well as the fact that the products or services at issue are identical or substantially similar. The courts must proceed under the presumption that the general public will be perplexed when confronted with identical marks and identical goods or services. It has been demonstrated beyond a reasonable doubt that this is the situation. When two objects are identical or highly similar, the degree of similarity between their marks is the most important factor in determining the likelihood of deception. The adjudicator is only required to take a cursory look at the insignia to determine their similarity; they are not required to provide supporting evidence for this determination. Even if there is no similarity of goods or services, trademark infringement occurs if there is identity or similarity of marks, if the registered trademark has a reputation in India, and if the unauthorized use of the mark exploits or damages the distinctive quality or reputation of the registered trade mark. In the second instance, there is still trademark infringement if there is identity or similarity of marks, even if there is no similarity of commodities or services to that which is registered. In other words, trademark infringement can occur without there being any similarity between the infringing products or services and the registered mark. Even if the

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infringing mark bears no resemblance whatsoever to the goods or services at issue, trademark infringement has nonetheless occurred. When there is no discernible difference between the numerous products or services being compared, evidence is not required. If the products or services at issue cannot be compared in any way, however, witness testimony will be required. The provision of financial services to dentists under the name "Smile care" does not violate the trademark for dental services bearing the name "Smile care." Both a lawsuit for intellectual property infringement and one for passing off were filed, but neither was successful. In adifferent case in which the similarities between medications and dietary supplements wereraised, the court determined that medications are used to treat problems, whereas dietary supplements are intended for individuals who are already normal and healthy and are meant to maintain that status. This conclusion was arrived as a result of the similarity between the two product types. This decision was made in response to the similarities between medications and dietary supplements that appear to exist. When they were conceived and introduced into the world, they were not created with the same purpose in mind. The proposed use of the trademark 'DURACEM' for non-metallic building materials is likely to cause confusion with the registered brand 'DUROPLY,' which is used for laminates, teak ply, and a variety of other commonmaterials. The proposed use of the trademark 'DURACEM' for non-metallic building materials islikely to cause confusion with the registered trademark 'DUROPLY'. In addition, the proposed use of the trademark 'DURACEM' for non-metallic construction materials is likely to increase the likelihood of a legal dispute arising from the situation. The building and construction industry utilizes the products of both companies to varying degrees. It was decided to reverse the Registrar's decision to approve the application.89 In a second case, the defendant, who was responsible for a successful sales campaign to sell "Daily Express" bicycles with the participation of the newspaper, initiated a new campaign to promote "The Times" bicycles despite having no affiliation with "The Times." Despite the fact that the defendant was responsible for the effective sales effort, this was done. This campaign led to the accusation of fraud against the defendant, which led to the trial. The judge ruled that there must be a "tangible probability of injury" to the claimant's property, and as a result, he or she reached the following conclusion: The court has determined that there must be a "tangible probability of injury." It is also true that the registration of two distinct categories of goods or services does not inherently preclude comparisons between them. This is a situation in which both of these statements are accurate. The CFI considers the expansion of educational textbooks and printed materials to be analogous to the development of educational correspondence courses. In a typical case of intellectual property infringement, the court will characterize the defendant's goods or

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services to determine if they fall within the specification, and then compare the defendant's goods as they havebeen utilized to the products described in the claimant's specification. If the court determines thatthe defendant's products or services meet the requirement, the case will likely be dismissed withoutfurther action. If they do, the court will determine that the claimant violated the defendant's intellectual property rights and will punish the claimant accordingly. Therefore, in order for thereto be an infringement of intellectual property or passing off, there must be some similarity betweenthe in question products or services. In each case, the courts will determine whether or not the contested products or services are comparable to those on the market today. Even though they areincluded in the same category, the products and services offered in that category are not always interchangeable.[69]

5.7.2 Trademark Procedures and Cyberspace Applications

Together, the Internet and the World Wide Web are referred to as the "online medium." Given that the Internet and the World Wide Web comprise the online medium, it is reasonable for a commercial company to want to extend its monopoly over particular trademarks to include this new medium. Numerous businesses and organizations engage in daily dialogue with the general public regarding their products, services, and activities via social networking sites such as Facebook, Twitter, and Myspace. Facebook, Twitter, and MySpace are a few examples ofwebsites that fall under this category. Commonly, trademark proprietors create accounts onsocial networking sites, which may or may not include a public page or profile, and use brand names or other phrases that have been registered as trademarks as their usernames on these sites. In addition, non-trademark proprietors frequently choose generic phrases for their social networking site usernames. Some businesses use their social networking pages to respond to customer inquiries, resolve customer complaints, and share information about their products, including pricing and special offers. Certain other enterprises' social networking profiles are never utilized. On social networking platforms, trademark holders are not the only individuals permitted to have usernames comprising their own trademarks. Other users are permitted to include trademarks in their identities. Some users have been found to have engaged in "usernamesquatting," which refers to the act of registering usernames that already pertain to the trademark owner in order to profit monetarily. In some instances, fake profiles on social networking sites canlead to legal action for

[69] David Nelmark, "Virtual Property:The Challenges of Regulating Intangible ,Exclusionary Property Interests Suchas Domain Names" , Northwestern Journal of Technology and Intellectual property,Vol.3,No.1,2004

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trademark infringement, dilution, and other trademark law violations. If customers are duped into believing the impostor's fraudulent assertion of identity and place their trust in it, brand impersonation on social networking sites has the potential to cause a number of issues for the users of those sites. If users provide the impostor with their personal information, they expose themselves to identity theft, phishing schemes, and an increase in spam emails. Evenif the user does not sustain any direct monetary losses as a result of the infringement, the user maystill perceive that they have been violated. Consider the young woman who used a fake Nine WestShoes Facebook account to transmit her images and contact information to an individual. She provided the information via the account. There is a possibility that she will perceive an intrusioninto her privacy. If the page provides a deceptive representation of the mark holder's products or services, users may inadvertently purchase inferior goods from a different company. This is true even if the featured goods or services are incorrectly represented as originating from the mark owner. In TDC International Corporation v. Burnham, the court issued an injunction against the defendant for using the plaintiff's trademarks without authorization[70]. The court issued an injunction ordering the defendant to cease using the plaintiff's trademarks immediately. On the other hand, the defendant created and utilized a Twitter account in the name of the plaintiff. The defendants were ordered to "disappear from the Internet" as a result of the contempt judgment rendered against them by the court for violating trademark law. Mattel Inc. is being sued for consumer confusion resulting from the defendant's use of a comparable logo on their portable educational device and social media distribution. This issue was discussed in the separate case of *Quia Corp. v. Mittel*, which involved trademark infringement allegations. The plaintiff filed a lawsuit against the defendant, alleging them of trademark infringement. The judge concluded thatthe defendant's active use of social media advertising could indicate that the two products employed parallel marketing strategies, which would increase the likelihood of consumer confusion and, as a result, trademark infringement. The judge ruled that the defendant's aggressivepromotion on social media increased the likelihood of customer confusion.The Internet has become a legal minefield as a result of cyber squatting, typo squatting, and other types of trademark infringement. Who is the precise owner of the property, assuming the provided information is accurate? Who owns a domain name: the individual who registered it first, or the trademark owner who devoted time and money cultivating the reputation and goodwill of the mark? Currently, the vast majority of registries provide complimentary domain name registration services. Without a valid web address,

[70] Dixon,Allen N.& Hansen ,Martin F., "The Berne Convention Enters the Digital Age", European IntellectualProperty Review,1996

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consumers will be unable to access any websites. Each website's domain name is embedded within its Internet address. The increasing number of Internet users has led to a rise in the significance of domain names. The domain name owner soon became synonymous in the minds of the public with the domain name itself. This notion that domain names are the only means by which users can accessand utilize a website has long since been disproven. This viewpoint has undergone significant changes over time. Instead, they began to identify the products and services a company offers, regardless of whether they were created online or offline. This occurred regardless of whether thebusiness was online or offline. Whether the organization in question is physically located online or offline, this holds true. A "domain name" is the Internet identifier of a particular website, and the case Eicher Ltd. v. Weblink India determined that a "domain name" is identical to a telephonenumber in multiple ways. A domain name is analogous to a physical telephone number on the Internet. Users must be able to contact and access a website via the World Wide Web in order forthe website to have its own unique address. This obligation is the responsibility of the Internet protocol address[71]. On the otherhand, Internet-communicating devices do not tangibly "speak" in terms of domain names. Despite there being no logical connection between the IP address and thedomain name, the domain name is typically substituted for the IP address. IP addresses can be viewed similarly to telephone numbers. The procedure used to register a domain name is also utilized by domain name service providers in order to maintain track of 100 distinct IP addresses.The Internet Corporation for Assigned Names and Numbers, also known by its acronym ICANN,is the most influential organization in the world in terms of name and number administration. Thiscomponent is responsible for making all available IP addresses accessible to the public in a formatspecific to a given hostname.

The National Informatics Centre in India is accessible online at www.nic.org.in, which is also the website's domain name. The suffix org indicates that a domain name has been registered with a commercial service provider for global use. If the affix "in" appears in front of a domain name, it indicates that the name has been registered with the Indian organization responsible for distributing domain names. In the case American Civil Liberties Union v. Reno, the term"domain name" was given its own legal definition. Additionally, the case presented evidence thateach server computer for an Internet service provider has a unique Internet Protocol (IP) address.Internet users who wish to exchange digital data with a particular Internet host will require the host's address in order to

[71] Felix Obertholzer Gee and Koleman Strumpf, “File sharing and Copyright”, 10 Chicago Journal on Innovattion Policy and the Economy 19, 23 (2010).

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establish a connection and exchange digital data with it. This is becausethe connection between two parties is established by the host's address. Because Internet domain names are analogous to telephone numbers, they are an extremely valuable asset to a business because they facilitate communication between the business and its consumers. In the case Mark and Spencer Plc v. One in a Miillion Ltd, it was determined that domain names consist of groups of alphanumeric characters preceded by dots. Typically, the business name appears first in a domain name, followed by any brand or trading name associated with it, and then the top level, which defines the nature of the business and, in some cases, its location. Almost always, the location of a company is the second component of a domain name. As a direct consequence of this direct result, the significance of a domain name is analogous to that of a trademark. People who spend a great deal of time online tend to assume that if a trade name has become well- known in the market to represent a specific product or a specific company, then that company will likely use the same domain name. This is because people who spend a lot of time onlinehave a tendency to assume that other people who spend a lot of time online will also make this assumption[72]. People who spend a significant amount of time online tend to believe that businesses want to maintain brand consistency across all marketing efforts. When it comes to identifying the products and services that the company offers via the Internet, the firm's trade name and domain name serve the same purpose. As previously mentioned, one of the requirements for registering a mark in accordance with the Trademark Act is the capacity to distinguish oneself from others.

(ii) The odd physical resemblance between the two, as well as the startling similarities between the two.

(iii) Since this is not the trademark's principal function, you may not use it to describe the available goods or services.

Even though the trademark's primary function is to describe the commodities or services in question, it has developed distinctive characteristics as a result of its use. A domain name is a unique identifier that sets out among the competition. Similar to the manner in which trademark regulations govern commercial names, domain name restrictions function in a similar fashion. Consequently, the use of a descriptive phrase as a domain name may still confer exclusive trademark rights or exclusive usage rights on the registrant if the phrase acquires distinctiveness

[72] Ginsburg c Jane, “Copyright and Control over New Technologies of Dissemination, Columbia Law Review,Vol.101,Nov.2001

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or a secondary meaning through Internet use. This is the case if the phrase acquires uniqueness or a secondary meaning through internet usage. This is the case if the phrase becomes more distinctive or acquires a secondary meaning due to internet usage. Given that the term acquires a singular connotation or secondary meaning as a consequence of its internet usage, this is the case. Therefore, this is the reality. On the other hand, it is crucial to be aware of an essential truththat must be acknowledged, namely that descriptive trademarks can gain widespread recognition on the Internet in a relatively brief period of time if they are used online. This is something that must be acknowledged, and awareness of it is crucial. This is a truth that must be recognized, andit is crucial that people are aware of it. Because the cost of propagating a mark on the internet is significantly less than the cost of advertising and publishing, marks could establish a pervasive reputation in less time than it takes for a descriptive term or trademark to become distinctive in the physical world. This is because the cost of propagating a brand on the internet is considerablyless than the cost of advertising and publishing.

In order to avoid the risk of losing the legal protections afforded to trademarks, anyone who wishes to register a domain name is required to provide proof that the name is being used in accordance with the registration requirements. This is done to ensure that the trademark's legal protections are not compromised in any way. In addition, the services offered via domain names on the website are prominent enough to qualify for protection under Section 2(Z) of the Trademark Act of 1999. In 1999, this provision was inserted. One of the most significant distinctions between a domain name and a trademark is that they both serve different purposes. Legal protection for a trademark is conferred by the laws of the country where the mark was initially registered. As a result, it is theoretically feasible for a trademark to hold multiple registrations in numerous jurisdictions throughout the globe. Customers can register a domain name from any location in the globe, as the Internet does not impose any access restrictions basedon a user's physical location. Typically, trademark administration in a particular territory or region falls under the jurisdiction of a government agency. As part of this procedure, the trademark proprietor will be granted rights that can be exercised anywhere within the addressed territory. Typically, administrative duties for naming systems and domain names are assumed by non- governmental organizations that are not bound by functional requirements. Among these duties are naming conventions and name resolution. Domain names are registered on a "first come, firstserved" basis, and they provide their owners with a distinct and extensive online presence. The Indian courts have never failed to uphold the exclusive rights of usage in a descriptive term, specifically in its use as a domain name,

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when the litigant has proven that it hasacquired uniquenessor secondary meaning through its use of the domain name in question. In other words, Indian courtshave never failed to protect the exclusive utilization rights of a descriptor. In other words, an Indiancourt has never before denied protection to the exclusive utilization rights of a descriptor. This is due to the fact that Indian courts have been more receptive to the notion of providing legal protection to domain names with a status roughly equivalent to that of a trademark. This is becauseIndian courts have been more receptive to this viewpoint. This is because businesses are beginningto place a greater emphasis on domain names. Since the system for registering domain names in India was first established, legal circlesin India have generally acknowledged the importance of domain name legal protection. The legalsystem has adopted a more modern interpretation of the law as a direct result of this direct consequence. There have been problems between trademark holders and domain name holders,as well as disagreements between domain name proprietors themselves. The passing off action is a strategy that can be utilized by trademark law to defend theowner of a trademark against trademark infringement. Before seeking a provisional restraining order against trademark infringement, the owner of a trademark must demonstrate that he has a strong prima facie case against the infringing party. This is the initial phase of the legal procedure.This implies that the plaintiff is responsible for identifying the visual and linguistic similarities that are causingdeception, misunderstanding, or error.

5.7.3 Domain Name instead of Internet Protocol (IP) address

It is essential to remember that Internet Protocol (IP) addresses are frequently lengthy, making them not only difficult to remember but also disagreeable to read and hear. Keeping this in mind is essential. It is significantly easier to remember someone's name than their phone number. Instead of using a number to represent a person, it is preferable to use a name that is not only user-friendly but also visually and aurally enticing. Numbers can be difficult to remember. Thisis due to the fact that it is significantly easier to remember names than specific numbers. This is due to the fact that it is challenging to recall numerical information. IP Addresses, on the other hand, lack this characteristic; in fact, it was precisely because of this limitation that the conceptof a domain name was conceived and developed.

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5.8 INSTRUCTIONS FOR OBTAINING A PATENT FOR YOUR SOFTWARE ORCOMPUTER PROGRAM

Brilliant minds are the source of new lifestyles, and those responsible for the invention of these lifestyles deserve recognition for their accomplishments. As a direct result of the development of numerous technologies, people's lifestyles have become significantly distinct. Examples of such developments include the automobile, the telephone, the computer, and the electric light lamp. Innovators contribute significantly to society by paving the way for the creation of new products and services that make people's lives easier and more enjoyable. The term "patent" is derived from the Latin word "patere," which means[73] "to lay open" or "to make something available tothe general public for inspection." From this term, the English word "patent" is derived. This phrase is the source of the word "patent" in the English language. This idiomatic expression marks the first appearance of the term "patent" in the English language. This Latin statement is where the English word "patent" originated. These documents are known as "patents," and the term "patent" refers to a legal instrument that grants an inventor exclusive legal rights. In certain circumstances, the term "patent" can also refer to the formal documents used to grant patents. However, this usage is rare. A patent is "a government authority granting an individual or organization a right or title, particularly the exclusive right to manufacture, use, or sell an invention." Not only does this definition explain how a patent operates, but it also defines the patent itself. I came across this definition as I flipped through the pages of the Oxford Dictionary. Patents are a form of intellectual property protection that confer exclusive legal rights on the inventor of an idea. The objective of the patent system is to encourage thedevelopmentof innovative technologies and the pursuit of scientific knowledge for the general public's benefit. This objective is achieved by granting exclusive rights to the concepts developed by inventors for a typically brief period of time. This benefit is granted to the recipientfor a predetermined amount of time. On the other hand, intellectual property protection regulations may hinder paralleldevelopment. This is because patent protection is typically granted to the first person to register apatent application. Due to the fact that patent applications are filed in chronological order, this is the case. This prevents others from exploiting or profiting from the patented innovation, regardlessof whether or not the innovation was independently developed. This is due to the fact that the individual who files a patent application first is typically the one whose invention receives patentprotection. According to customary procedure, the honor of being the first person to apply for a patent goes to the first

[73] Graeme B.Dinwoodie,"National Trademark Laws and the Non National Domain name System, IntellectualProperty Rights-Critical Concepts in Law,Vol.IV, (London:Routledge,2006),

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person to submit a patent application. Software and computer programs arenot eligible for patent protection in India forthe same reason they are not eligible for patent protection in the European Union (EU). The Indian Patent Act of 1970 does not recognize patentsas an appropriate method for preventing computer programs from violating intellectual property rights. This is due to the fact that patents are an inadequate approach. This is because patents are not acknowledged as a valid instrument for protecting intellectual property rights. Consequently, this circumstance has developed. The laws governing intellectual property in India are the only ones that can prevent inappropriate use of computer software. Computer programs and data are both considered creative creations that can be protected by copyright laws. According to section 2(o) of the Copyright Act of 1957, musical compositions such as these are protected under copyright law. In accordance with this provision, such compositions are eligible for copyright protection. The preceding year, this provision was added to the document, and it was ratified in 1957. As a direct result, it is impossible for an individual in India to obtain a patent for their own software innovation[74].

5.8.1 Essential Conditions for Patent Eligibility Prerequisites

The patentability criteria are used to determine whether or not a particular innovation merits the legal protection that a patent can provide. A patent is comprised of four elements: the specification, the novelty of the invention, the inventive step, and the industrial applicability of the invention. A patent will not beissued for an innovation until all patentability requirements have been satisfied.

In order for an idea to be considered for a patent, it must first be supported by evidence demonstrating that it meets all of the requirements. In conclusion, a patent is a set of exclusive rights granted by the government to a patentee for a limited period of time in exchange for the controlled public disclosure of particular characteristics of a device, method, process, or substance. These specific attributes could be a substance, a method, or a technology. Theapplicant is granted these rights in exchange for the controlled public disclosure of particular device, technique, or process characteristics. In exchange for precise information regarding the properties of the patented device, method, or process, the government will grant the patent holder the aforementioned rights. These benefits are only available to United States citizens. In exchange for these legal protections, the patent holder is required to provide restricted and limited public

[74] H.Brian Holland, "Tempest in a Teapot in a Teapot or TTidal Wave?Cybersquuatting Rights and Remedies Run Amok", Journal of Technology Law and Policy, Vol.10,2005

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disclosure of the asserted invention to the government. This disclosure must be made available to the public. In exchange for patent holders' willingness to disclose certain information to the general public under government supervision, the government grants them a number of rights[75].

5.8.2 The Function of International Conventions in the System for Granting Computer Software Patents

In the 1970s, the World Intellectual Property Organization (WIPO) began to consider the issue of how to legally secure computer programs, and one of its first ideas was to create a system that was unique to itself. A law that uniquely protected intellectual property safeguarded all three components of computer programs:

(a) object code;

(b) source code; and

(c) documentation.

"Source code" refers to the original code of a computer program that was written in a human-readable program language; "object code" refers to a version of the program that is directly usable by a computer, in binary form – a series of "zeroes" and "ones" – that computer processors may understand, but humans cannot unless it is "decompiled," which means that it is converted into source code. Both "source code" and "object code" are included. In addition to the"source code," also the "object code"" This package contains both "source code" and "object code." National legislators, on the other hand, did not comply with the WIPO Model Provisions on the Protection of Computer Programs, which required an industry-specific system. The organization responsible for crafting these laws is the World Intellectual Property Organization (WIPO). As a direct result, the notion that copyright should be utilized to ensure the security of computer programs began to acquire traction and momentum. In February 1985, the World Intellectual Property Organization (WIPO) and the United Nations Educational, Scientific, and Cultural Organization (UNESCO) collaborated to convene a Group of Experts on the Copyright Aspects of the Protection of Computer Programs in Geneva. Copyright issues were to be the subject of discussion at the meeting. During this conference, steps were taken to advance the implementation

[75] Halpern E Stevens, "Harmonizing The Convergence of Medium ,Expression, And Functionality:A Study of The Speech Interest In Computer Software", Harvard Journal of Law & Technology,Vol.14,2000

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of computer programs, which was a significant topic of discussion, after an in- depth investigation and a heated discussion. Using the information obtained from the investigation, these phases of the technique were determined. When national laws incorporating provisions for the copyright protection of computer programs were in effect, computer programs received the same level of protection as other forms of works that are protected by intellectual property law. This situation arose because computer programs were recognized as works of intellectual property. In order to create programs that are compatible with one another and with programs of a similar character, they also developed a number of "genre-specific" laws, such as exemptions for the creation of backup copies and the "decompilation" of programs[76]. The purpose of these regulations was to establish programs that are compatible with one another and with other programs of a similar nature. In order to facilitate the development of programs that are compatible with one another, these exemptions and laws were passed into effect. Despite this, a number of countries have expressed an interest in implementing a system similar to the protection afforded to the gray area category of works of applied arts and industrial designs (but with a reduced protection duration and the possibility of material reciprocity). In contrast, they intended to implement a system similar to those used to safeguard works of applied art and industrial designs. What had been worked out in WIPO forums as a model of "soft law" was subsequently finalized as binding regional and international standards by two events: the publication of the European Community's Computer Programs Directive in July 1991 and the adoption of the TRIPS Agreement in April 1994. These two events elevated the agreements reached to the level of legally binding regional and international standards. Both of these events occurred within a few years of one another. At the regional and international levels of legally binding standards, both of these occurrences occurred. Both of these instances occurred at the regional and international levels of legally binding standards. As a direct result of these two events,it is now abundantly obvious that computer programs should receive the same legal protection as literary works under the Berne Convention.

Article 10 of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) contains an interpretation clause mandating the application of the Berne Convention to allcomputer programs. Whether the programs are represented in source code or object code, this holds true. Article 4 of the 1996-approved World Intellectual Property Organization Copyright Treaty (WCT) provides additional clarification on the subject. There are currently a smallnumber of individuals

[76] Ira Natheson S, “showdown at the domain name corral: property rights and personal jurisdiction over squatters , poachers and other parasites”, University of Pittsburg Law Review ,1997

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who support removing the copyright protections imposed on computer programs. Even though other, more conventional producers in the music and publishing industries view software engineers as "outsiders," computer programs are not "simply" technological solutions to problems. Computer programs, on the other hand, are creative creations in and of themselves. This is true despite the prevalent notion that software developers are "outsiders." In reality, software is the result of the author's creative efforts and has a predominately technical nature. The fundamental distinction between the two types of software applications is the "active" aspect of the program, which signifies that it has a technical or physical impact on the computer's hardware while it is running[77]. This is the principal distinction between the two software application categories. This is the primary distinction that can be madebetween the two types of software. Because software is an expression of creativity and originality, this argument for removing software copyright protection is faulty.

[77] Ira Natheson S,Showdown at the domain name corral: Property rights and personal jurisdiction over squatters, poachers and other parasites,(University of Pitts burg Law Review,1997

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CHAPTER- 6

CONCLUSION AND SUGGESTIONS

6.1 Introduction

A lamp can dispel "darkness," a metaphor for ignorance, and the intellectual property that individuals own is linked to the cultural value that our society holds. The protection of intellectual property rights is an example of an intangible asset that is crucial to the creation of new technologies, ideas, works of art, services, and products, as well as the expansion of national economies. In addition to contributing to the protection of these rights, this value emphasizes the principle that information should be freely exchanged, analogous to how the light from a lamp can dispel "darkness." To protect the legal rights associated with one's intellectual property, it is essential to maintain a state of constant vigilance. This level of vigilance can only be maintained if we have a thorough understanding of the issues surrounding intellectual property rights and if, when our legitimate interests are endangered, we act swiftly to defend them. Due to its potential worldwide repercussions, the present problem with information technology has taken on a sense of increased urgency. In the past few decades, scientists and engineers have developed technologies that allow users of different computers in different regions of the globe to communicate. These technologies permit the internationalization of communication. This century is commonly referred to as the "century of the mind" because it will be dominated by human mental constructs. This is why this prevalent name exists. This is the rationale for the designation of the current century as the 21st century. To make the most of the opportunities that have become available as a direct result of the revolution in information technology, a substantialquantity of effort is required. On the other hand, the development of such technology presents a number of challenges in terms of legal and regulatory frameworks for safeguarding intellectual property rights in cyberspace. These issues require serious consideration. Among these obstacles are protections against infringement of copyright, patents, and trademarks. It is essential to investigate the existing legal and regulatory frameworks because there is a possibility that these frameworks no longer apply to the new technology due to a variety of intellectual property rightsissues that have never been encountered before. This particular issue is one of the reasons why the current legal and regulatory frameworks need to be reevaluated. Currently, everyone is awareof the relationship between intellectual property and the internet, regardless of their perspective. This comprehension is shared by all parties. The aforementioned changes in the technological landscape are putting intellectual property rights and the protection of those rights to the test. If there is any prospect of

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striking a balance between individual rights and public interests in cyberspace, substantial effort may be required. This is due to the fact that technological advancements have spawned a variety of obstacles, including distribution, acquiring, connecting, patent and copyright protection, trademark and domain name conflicts, and other similar issues.It is possible that doing so will be necessary to reach this equilibrium. Internet-based disputes haveno bearing on the conventional interpretation of copyright and trademark laws, which are wholly irrelevant in this context. Legislation and the ever-changing decisions of the courts are insufficientto adequately address the current challenges that have come to light. Despite this, itis difficult to minimize their significance due to the fact that the laws at issue have been modifiedto better suit the needs of the system, which is primarily attributable to the court's ingenuity. Thisindicates thattheir significance cannot be wholly discounted at this time. Nonetheless, significantreforms are still required to resolve the problems brought about by the Internet and the digital revolution. Despite the fact that intellectual property regulations are constantly revised to account for new technological advancements, significant changes are still necessary to surmount the obstacles. Asa consequence of the expansion of the Internet, a new cyberspace has emerged that can be used for copyright infringement, information production, distribution, and dissemination, as well as copyright exploitation. Due to the convenience of access and pervasiveness of this activity in the electronic world, digital media are more susceptible to losingroyalties than traditional media. Infringements of intellectual property rights that occur in cyberspace cast light on the current strategy for combating copyright infringement, which involves legal action against the right holders, internet intermediaries, and the general public. Copyright laws that have existed for a longtime, such as those in effect in the United States at present, have. The Copyright Act of 1957 may shed light on different types of infringement. Copyright laws were enacted because the creative efforts, financial investments, and hours of labor that went into creating the protected work all merit protection. On the other hand, the current copyright restrictions will not prevent individualsfrom violating the rights of others. It is vital to enhance the digital environment, commonly referredto as cyberspace, in order to provide authors with reassurance and motivate them to write. This can be achieved by implementing safeguards against unlawful downloading, bookmarking websites, and connecting. This protection does not, however, extend to the realm of digital technology. As a direct consequence of the pervasive incorporation of software into the technological environment, it has become an indispensable element in the process of developing innovative technological practices. It is naturalfor companies that specialize in the development of software to sense the need to protect their discoveries from rivals. There are a variety of methods for protecting software,

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including copyright, patents, and trade secrets. Existing intellectual property rights to protect software present a complicated problem in and of themselves. Regarding the preservation of software, the TRIPs agreement provides a great deal of wiggle room for interpretation. Globally, there is a growing trend toward the establishment of software patent protection, and it is anticipated that this trend will continue for the foreseeable future. However, it is left to the discretion ofindividual governments to offer protection for software that can be protected by patents, copyright, or trade secrets. A number of nations not only advocate for the preservation of computer programs and software, but have also enacted legislation to ensure that this objective ismet. The Copyright Act of 1957 safeguards intellectual property in India, which includes computer programs; however, cyberspace and online software piracy are not addressed by Indianlaw. Despite the fact that the primary objective of the Act was to protect computer programs, thiseffect has been observed. Thisis just one of numerous examples demonstrating the validity ofthe above assertion. As a result, it is imperative to enact legislation that addresses the newly formed method of file sharing and theassociated concerns, as well as the responsibilities of online intermediaries. Copyrights in their traditional form are in conflict with rapidly developing digital and information technologies, which must be acknowledged. These technologies promote the unrestricted availability of digital content,its near-zero marginal cost of transmission across the globe, and inventive application. The Internet's underlying "open source" philosophy is inherently incompatible with the concept of copyright protection for digital information. Due to the urgent need to protect intellectual propertyin cyberspace, the legal community has been compelled to develop novel legal solutions in order to address the problems posed by thedevelopment of information technology. The preservation ofrights in cyberspace is currently a technical challenge, and the development of information technology has prompted the legal community to develop new legal remedies. Cases such as Napster have demonstrated that copyrighted works in cyberspace are highly susceptible to infringement. This is due to the simplicity with which the general public can access these works, as well as the potential for unauthorized modification and transfer of such publicly accessible works. In addition, this is the case because these works are readily accessible. As the Napster scandal demonstrates, violations of intellectual property rights are commonplace in cyberspace. The Copyright Amendment Act of2012 was enacted in order to ensure that copyright rights continue to be protected in cyberspace. The purpose of this measure was to bring the current copyright laws into conformity with the WIPO Copy Treaty and the WIPO Performance Phonograms Treaty. India's ratification of the newSection 65A, which has made it possible to include technological protection techniques within thescope of legal protection, can

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only be viewed as a positive development. This improvement cannotbe emphasized enough. If it is determined that Internet service providers were complicit in the violation of intellectual property rights, then those providers will be held legally liable. To defendthemselves from this risk, internet service providers (ISPs) are required to monitor and block websites that violate intellectual property rights. However, this issue has never been presented before a judge; doing so is crucial because ISPs must defend theirauthors, creative directors, and designers to justify their behavior. This issue has never previously been presented before a judge. Due to the global nature of cyberspace and the lack of physical boundaries within it, India's courtsconfront a significant obstacle in their efforts to resolve copyright violations in the digital era. This is due to the fact that intellectual property violations can occur anywhere in the world. Accordingly,the provisions of the Copyright Act areample to cover violations of the same in cyberspace, and Section 62(2) of the Act and Section 20 of the CPC grant courts in India broad jurisdictional powersto take cognizance of the matter. In conclusion, the Copyright Act's provisions are adequate to encompass violations of the same in cyberspace. Consequently, the provisions of the Copyright Act are adequate to encompasscyberspace offenses. In other words, the provisions of the CopyrightAct are sufficient to cover violations of analogous laws that occur in cyberspace. According to theWCT and WPPT, which state that such provisions must be included in the national legislation of member nations, there is no provision in Indian law regarding the avoidance of technological measures and the rights management information established to protect copyright on the internet.Despite the fact that such provisions are mandated to be included in the national laws of member nations, they are notpresent. Both of these agreements stipulate that these provisions must be incorporated into the national laws of each member nation. In light of the changing circumstances, it became evident that the current internationally recognized standards are incapable of addressing the issues that the new technology presents. After it became evident that the circumstances had changed, this conclusion was reached. On the other hand, the WIPO Performance and Phonograms Treaty of 1996, which was just recently ratified, appears to resolve some of these digital world concerns. To simultaneously achieve both of these objectives, the protection of intellectual property rights in cyberspace must take into consideration not only the rights of internet users, but also the need to preserve a robust public domain. Due to the functional similarities between the domain name and the trademark, they have been incorporated into the virtual reality industry. Due to the interconnected nature of trademarks and domain names, however, a number of legal complications have arisen. Every nation's legal system includes specific regulations for the preservation of trademarks and logos. Words, names, and various other distinguishing characteristics, such as

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emblems and insignia, are typical trademark components. The purpose of trademark laws and policies is to provide legal protection for the trademarks of consumers of products and services and to prohibit the fraudulent use of marks in commercial transactions.This protection, on the other hand, has caused a significant number of issues for users as a direct result of the increasing number of people using domain names in cyberspace. This goes against the fundamental premise upon which trademark regulations in India and elsewhere are founded.It is necessary to locate the appropriate authorities in order to register domain names. Due to the fact that a domain name functions similarly to a trademark within metasociety, this is the case. Domain names are the means by which cyber society participants establish their identities, aswell as those of their businesses and the products and services they provide. There are numerous domain names that have the potential to mislead or confound the general public. The registration of a domain name has been deemed an instance of "bad faith registration" by a court. This designation was assigned due to the intent of the registrant. It is simple to confuse "Newsony.com" and "sony.com," and "Marutisuzuki.com" is synonymous with "Maruti Suzuki."These two examples serve to clarify the topic. In the event of a legal dispute with an after-the- fact user, the date on which the trademark was first used for commercial purposes will serve as the determining factor. When consumers are likely to be confused about the products or services at issue or their country of origin due to the use of both trademarks, there is a legal conflict between the two trademarks. If it is determined that a legal dispute known as an infringement has occurred, the later user of the trademark will be required to cease using it, and the trademark ownermay be ordered to pay damages. It would appear that trademark concerns regarding the use of domain names have largely disappeared from the jurisdiction of the legal system since the establishment of various international and national dispute resolution mechanisms. These procedures were established both internationally and domestically.

Currently, the distinctive aspects of the conflict between trademarks and domain names are stretching the Indian Judiciary to its absolute limits. This is due to the fact that trademarks and domain names compete directly in the marketplace. Because certain domain name disputes have a global scope, it has been difficult for Indian courts to discover global solutions to the problem of cybersquatting. As a direct result of this fact, it is presently difficult to reach a conclusion in a number of these situations. Businesses have incurred losses due to domain name disputes, most notably those involving cyber squatters, which have been the direct cause. Since the introduction of the Internet to India and the rest of the subcontinent, cyber trespassing has become a pervasive issue. Our legislative and judicial institutions are responsible for monitoring the most recent

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worldwide legal developments in this area of law. Cyber trespassing is undeniably the most divisive and contentious issue presently being discussed in the field of cyber law. This is true in each and every region on the planet. The existing regulation, on the other hand, does not provide a solution to the identified issue. The Information Technology Act of 2000 and the Trademarks Act of 1999 fail to provide an adequate definition for the term "cyber squatting." The vast majority of domain names registered in India contain the trademarks of other companies or individuals. They are cognizant of the fact that they will not experience the full extent of the potential gravity of the consequences. The courts in India have been able to effectively handle a substantial number of cyber squatting cases because they have implemented the Trade MarkAct's required passing-off action. Cybersquatting is prohibited in the United States, but India's judicial system has not yet passed a law making this activity illegal. Similarly, the same could be said about the United States of America. Alternately, Indian organizations embroiled in a domainname dispute may present their case to a civil court with the requisite level of authority to consider the case. A civil court in India has the authority to issue an order in accordance with the common law of passing off and a permanent injunction against the unauthorized user of a domain name. These legal actions may be taken against a person who misappropriates another's trademark. A person who steals or otherwise inappropriately uses another's trademark may face these legal consequences. If you wish to restrict an unauthorized user's domain name usage, you have a choice between these two methods. If the Trademarks Act of 1999 were amended to includepassing off, trademark owners would be afforded greater protection than the government intendedwhen it enacted the statute. This is due to the fact that plagiarism is a form of unethical competition.The reproduction of a trademark without the owner's permission is known as"passing off." It is essential to remember that the Indian viewpoint and the extant territorially- based standards for jurisdiction were developed at a time when physical geography was more influential than it is today. This is something that cannot be overlooked. This cannot be overlooked under any circumstances. This is something that must be remembered at all times andunder no circumstancesbe neglected. Any expansion of personal jurisdiction beyond these limitsnecessitates amendmentsto Sections 19 and 20 of the Code of Civil Procedure to incorporate the concept of objective territoriality, also known as the Effects test. These modifications are necessary for any expansion of personal jurisdiction beyond these boundaries. This is the case due to the fact that codified lawsrestrict the geographic areas over which jurisdiction can be exercised. This is the case due to the fact that codified laws restrict the geographic area over which authority can be exercised. The explanation for this is readily apparent from the previous statement. This is due to the fact that lower court precedents and foreign court

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precedents are not binding on the Indian Courts, as wellas the growing involvement of non-residents in cases of trademark infringement, passing off, anddomain name disputes as a result of globalization and internet connectivity. Additionally, this is because precedents from subordinate courts and foreign courts are not binding on the Indian Courts. In addition, Indian superior courts are not required to adhere to the precedents establishedby subordinate Indian courts. Moreover, this is the case because Indian courts are not obligated toobserve precedents established by subordinatecourts or foreign courts. As a result of the conflictsthat have arisen between domain names and trademarks, the legal community has been compelledto update the regulations currently in place for trademarks and to implement new cyber laws to protect domain names. This ensures that domain names receive the proper level of protection. However, the Information Technology Act of 2000 does not address the challenges posed by the introduction of domain names as trademarksubstitutes. The act of illegally downloading softwareor other intellectual property from the internet without the owner's authorization is referred to as [cyber] piracy. The Act does not address a scenario in which two separate parties, each with trademark rights, wish to register the same domain name. Even though both parties desire to register the same domain name, this is the case. Due to how the law regulates trademarks, it is possible for two separate businesses to use the same trademark for a wide variety of products and services, despite the fact that doing so is illegal. Despite the fact that the law prohibits these enterprises from doing so, this is the case. A domain name will only function effectively on the Internet if it is owned by a single entity in cyberspace. This is required for the name to operate correctly. In this context, businesses were most surprised to discover that the first individuals to recognize the value of domain names had violated their historic trademark rights. This is due to the fact that these individuals haveappropriated domain names already registered to them. This is the case because domain names are a form of intellectual property that was introduced relatively recently. These individuals havebeen accused of employing deceptively similar trademarks to those of the enterprises. In addition, the Act does not apply to individuals who innocently register domain names because they are either unaware of the rights that another person may have in the name or do not register the domain with the intent to make a profit in poor faith. This indicates that the Act does not apply to domain name registrants. This indicates that the Act does not apply to domain name registrants. This indicates that the Act does not apply to domain name registrants. The Lanham Act establishes a safe harbor for social networking websites if they can demonstrate that they are innocent infringers, that they did not actively encourage or aid in the infringement, and that they lacked specific knowledge of the infringement committed by their users. This is required for the establishment of the secure harbor.

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If websites can display these three elements, then it is possible to achieve this goal. In addition, the social networking website must demonstrate that it was unaware of the violation of its members' rights throughout the duration of the incident.

The Information Technology Act of 2000 does not address concerns regarding intellectualproperty rights infringement. Copyrights, trademarks, and patents are just a few of the issues thatneed to be addressed. The laws that are presently in effect in the United States do not address these issues. There is no singular location on the internet that could be considered the most authoritative and regulating center of the entire internet. Due to the global nature of information technology, there is presently no single agency with comprehensive legal control over theInternet. This is because information technology that has crossed international borders cannot be controlled. Given that there are no physical barriers separating cyberspace from the actual world, it is essential that its own legal framework be established. The fact that various regions of the world have developed significantly different legal systems, on the other hand, poses a significant barrier to the establishment of cyber laws. If a singular organization were granted supranational protection against the infringement of intellectual property rights in cyberspace, the issue could beresolved in a manner that was not only incredibly dramatic, but also relatively simple. This issue pertains to intellectual property rights. This would eventually lead to the abolition of national borders and the establishment of a global cyber jurisdiction.

Over time, the development and evolution of the underlying technology have been guided by protocols that were created through participatory decision-making processes by organizations such as the Internet Engineering Task Force (IETF) and its subcommittees and the Internet Assigned Numbers Authority (IANA). It is preferable to protect and promote intellectual property rights in cyberspace in conjunction with international agreements and covenants that have created international jurisdictional issues. The World Intellectual Property Organization (WIPO), the Internet Corporation for Assigned Names and Numbers (ICANN), and the Uniform Domain Name Dispute Resolution Policy (UDRP) are examples of such organizations. This appears to be the most effective strategy for advancing the rights of intellectual property owners and defending those rights. These international organizations have the responsibility and authority to protect intellectual property. It is of the utmost significance to remember that all domain name registration agreements include administrative procedures for the administration ofdomain-related complaints. This information is buried in the legalese of the agreement and canbe discovered by perusing the fine print. As a result of the aforementioned events and the realization that prompt action is essential, it was strongly recommended that regulations be devised to regulate the domain names

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used in cyberspace. Due to the realization that immediate action is required, this was done. This action was taken in response to the realization that immediate and substantial change is necessary. This action was taken because it was recognized that a need for change was imminent and that it was necessary to address this need. The International Corporation for Assigned Names and Numbers (ICANN) determined that a brand- new rule was necessary to facilitate the registration of new domain names. This regulation is referred to as the Uniform Domain Name Dispute Resolution Policy (UDDRP). This decisionwas made in an effort to reduce the amount of time and effort required for the process. India chose to adopt or implement a policy known as the In Dispute Resolution Policy, or INDRP, in order to expedite proceedings. This action was taken to expedite the procedure. The simplification of the procedure is the shared objective of these two distinct policies, which operateindependently of one another. The Internet Corporation for Assigned Names and Numbers (ICANN) strives to expedite the resolution of disputes by convening a tribunal, hearingto the cases, and rendering the appropriate decisions. This process could potentially take some time. This website contains additional information regarding the upcoming procedure. The fact that a substantial number of cases, including the one involving India, have been resolved in accordance with the regulations suggests that ICANN's dispute resolution procedure is reasonably effective. Moreover, it is undeniable that the Uniform Domain Name Dispute Resolution Policy (UDRP) plays a substantial role in the out-of-court resolution of domain name disputes. This is a fact that cannot be contested. The primary types of recourse made available byICANN to users are domainname transfers and domain name cancellations. Despite this, it is regrettable that the Uniform Domain Name Dispute Resolution Policy (UDRP) has become the only viable venue for resolvingdomain name disputes. This occurs when national tribunals are incapable of resolving domain name disputes due to a lack of applicable national law. This is a fact that provides grave cause forconcern. Despite this, the Uniform Domain Name Dispute Resolution Policy (UDRP) remains theonly viable method for resolving domain name disputes. The Uniform Domain Name Dispute Resolution Policy (UDRP) is a commendable effort not only because it was a pioneer in the field of domain name disputes, but also because it serves a global community. It is obvious that it is inadequate, particularly when one considers that it is theonly option for resolving domain name disputes, but this does not alter the fact that it is inadequate. Even though the Uniform Domain Name Dispute Resolution Policy (UDRP) provides a procedure for resolving domain name disputes, the efficacy of its resolutions leaves much to be desired. The World Intellectual PropertyOrganization, also known as WIPO, educates intellectual property officials from all over the worldon the significance of enacting and strictly enforcing

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strong intellectual property laws. The creative community is confident that the WIPO agreements to establish a global standard for the protection of intellectual property will accomplish what is necessary. Because of this, the creativecommunity has a great deal of faith in the WIPO accords. As a consequence, the creative community now has a great deal more faith in the WIPO's agreements. In the modern digital era, this institution and the new WIPO Copyright Treaty in particular play a crucial role in fostering innovation and safeguarding the technological assets of our nation. Given the nature of the digital era, this position is exceptionally vital. This is especially evident when one considers that the digital revolutionmarked the beginning of the new digital era.

The Arbitration Centre of the World Intellectual Property Organization (WIPO) is currently constructing an online, Internet-based system for the administration of intellectual property-related commercial disputes. Due to the difficulties posed by the competition between trademarks and the domain name system, this is done in recognition of those difficulties. The concept that motivates not only the WIPO but also a substantial number of other services is not only admirable but also makes a great deal of practical sense. In addition, these Centers are managed in a highly efficient and effective manner. Domain name dispute resolution is one of the areas in which they have demonstrated their expertise. In 2001, the Tata Group won a legal dispute against a cyber squatter. The domain name usurper has already registered ten domain names, including, among others, ratantata.com and jrdtata.com. The organization was successfulin its attempt to file a complaint with the World Intellectual Property Organization (WIPO) against an Indian company that had previously registered the domain names at issue in the dispute. The WIPO Mediation, Arbitration, and Expedited Arbitration Rules and Clauses were formulated by the WIPO Center in collaboration with a number of the world's foremost experts in alternative dispute resolution and intellectual property. The Rules and Clauses of the WIPO, which are available in a variety of vernacular, have been updated to reflect the most recent developments in the field of dispute resolution and can be read in a number of dialects. The adaptability of these guiding principles and standards to any legal framework in the globe. The WIPO center is responsible for directing and administering procedures carried out in accordancewith the WIPO Rules. In addition, the organization that provides these procedures is the WIPO center. The World Intellectual Property Organization (WIPO) maintains a registry of over a thousand impartial arbitrators and mediators from more than seventy countries. The WIPO maintains a list of potential neutrals that includes both highly specialized practitioners and specialists and seasoned generalists with extensive

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experience in conflict resolution. They encompass the entirety of intellectual property law in terms of the technologies involved and thelaws themselves. The candidate roster for the WIPO has been updated to include these individuals. In addition, the WIPO Center is in charge of designing and implementing individualized conflict resolution strategies. The mere act of recognizing UDNDR Policy rights is not nearly as significant as India's legal provision for the preservation of domain names.

Because Indian law recognizes more liberties, this is the result. More than twenty thousand cases have been handled by the WIPO Center to date. The Information Technology Act of 2000 contains neither a mechanism for compensating victims of cybersquatting nor a procedure for prosecuting those who perpetrate the offense. Additionally, there is no procedure for the prosecution of cybersquatters. The under registration has implemented a number of preventative measures, including monetary compensation for the affected businesses, in an effort to thwart future attempts by squatters to acquire domain names. The Indian Domain Name Dispute Resolution Policy (INDRP), which is now available to the public due to IN Registry's efforts, canbe read by anyone. To effectively resolve any disputes that may arise regarding an extension, it isimperative that all parties adhere to this approach. Over the past decade, the INDRP has demonstrated that it is a mechanism for the prompt and effective resolution of domain name disputes in India, a country that continues to grapple with a large number of pending cases and a shortage of judges. This has been accomplished by using a tribunal of arbitrators who have been appointed by the government. The Indian National Domestic Relations Panel was established to address the lack of Indian justices. Even though there are a few aspects of INDRP that could be enhanced, utilizing it to prevent cyber squatting remains a highly effective strategy. The infringement of copyright in cyberspace and the conflict between trademarks and domain names are extraordinary circumstances that are presently pushing the Indian Judiciary to its limits. Due to the global nature of certain domain name disputes, patent protection for computer programs, and online copyright infringements, it has been difficult for Indian courts to find all- encompassing solutions to cyberspace-related problems. These issues have arisen as a result of the proliferation of cybercrime. The Information Technology Act of 2000 has many flaws, most notably in the areas of jurisdiction, domain conflicts, and intellectual property rights infringement. The Indian Trademark Act of 1999 and the Copyright Act of 1957, both of which were enacted in India in 1999 and 1957, respectively, do not address concerns of trademark and copyright infringement in cyberspace. India passed these statutes in 1999 and 1957, respectively.In order to prevent future

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issues involving trademarks, copyright, and domain names in cyberspace, there is an imperative need for regulations that are either stricter or more specific on topics such as copyright infringement, domain name disputes, and data protection, among others. This would aid in avoiding possible legal conflicts. As a direct result of the technological revolution that was sparkedby the invention of technology, the rules governing intellectual property rights and information technology are perpetually updated to accommodate the technology's continued growth. In our current era, which is defined by the presence of information technology, these legislative bodies still require substantial revisions in order to adequately address the challenges posed by the internet and the information technology revolution.

The Indian government has devised a failsafe plan with the goal of making cyber law the most reliable ally the internet could have. If we are successful in establishing unique intellectual property regulations, we will no longer be able to raise this issue. In contrast, the process of drafting, debating, and ultimately passing amendments to previously enacted copyright and trademark legislation has just begun. This procedure will require time. There will be a delay of at least a few months, and more likely a number of years, before enhanced copyright and trademark protection becomes available. A policy developed for one interest or function must be founded on a conciliatory stance, and additional care must be taken to ensure that it does not have a disproportionate impact on or impede the process of developing anything else that is equivalent. This will guarantee that the policy's effects are not disproportionately severe. In addition, research should be conducted in the fields of law, economics, and public policy to determine the extent to which cyberspace rights should be protected. This is an imperative necessity for protecting intellectual property rights, trademarks, and domain names in cyberspace. People should be permitted to take advantage of the opportunities provided by cyberspace, while being shielded from those who are intentionally attempting to violate the law. This is the objective thatthe various components of the cyber system are striving to achieve. The Government of India's Department of Information Technology, which is directed by the Ministry of Information and Communication Technology, is responsible for the development of a number of these distinct components. Therefore, it is necessary to investigate copyrights, trademarks, domain names, anddatabases-related regulations, laws, and technologies in a more in-depth and comprehensive manner. This investigation must establish a common ground for the resolution of conflicts and a more rapid response to impending electronic repercussions. Before the study's results can be considered conclusive, these objectives must be met. Before attempting to establish jurisdiction over

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cyberspace, it is essential to have well-defined international law-based standards in place. Ifthese principles are applied, only then can the legal systems of all nations be persuaded to adopt consistent responses to the jurisdictional difficulties posed by the internet. Nothing else suffices. In addition, the participation of international organizations, professional and industry associations, law enforcement agencies, cyber law experts, and other relevant organizations in the creation of multilateral Treaties and Conventions and the formulation of a Code of Conduct for Cyberspace will aid in the formulation of clear principles that will govern cyberspace. In order to ensure that disagreements are avoided rather than resolved, it would be preferable to establish a set of decision-making criteria. This can be achieved through the establishment of explicit guidelines and regulations. Numerous international agreements, treaties, and legislative acts, as well as their application and incorporation into national laws, have therefore provided an appropriate framework for the protection of copyright and trademark rights in cyberspace. As society advances and new technologies emerge, the legal system must conceive a mechanism to bridge the gap between the requirements of the old standards and those of the new requirements. Legal professionals, legal scholars, and other critics who are just beginning to investigate these topics have just begun to examine the challenges presented by the interactive computer capabilities that represent this new technological frontier. This new technological frontier signifies a shift in the technological terrain.

The fundamental principle has been exhaustively validated, but the existing legal system cannot adequately address intellectual property infringements in cyberspace. In order to provide an effective and acceptable response to the most recent technological advancements in various disciplines, it is now imperative that the existing legal system be modified. The answers to queries pertaining to copyright and trademark issues in cyberspace can be found in the principlesof intellectual property law, computer program law, and trademark law. In contrast, the application of copyrights necessitates a pragmatic approach from the courts in order to develop copyright protection measures applicable in the real world. In order to establish copyright protection measures that are applicable in the actual world, this is required.

This theory has been validated by the evidence in every conceivable way. Due to the expansion of the Internet, the number of challenges associated with the preservation of intellectual property rights in the digital world has increased dramatically, causing a great deal of concern. In the overwhelming majority of instances, domestic courts were responsible for hearing and deciding

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cases involving allegations of intellectual property rights infringement. The court may hear these cases from either the plaintiff or the defendant. The courts had no trouble pinpointing the precise locations of copyright-protected activities, such as the performance or publication of works, the sale of products bearing a trademark, or the development or use of patented inventions. It was possible to participate in a vast array of activities, including the production of live performances, the distribution of exact duplicates of objects, and the investigation of other types of enterprises. Since the 1990s, the development of new technologies has posed new challenges to international intellectual property law, which has had to adjust to meet these new requirements. This pattern has remained largely unaltered since the turn of the century. This is due to the fact that technological advancement has directly diminished the significance of national boundaries, resulting in the aforementioned phenomenon. Internet users have almost completely lost awareness of their physical surroundings as a direct consequence of the internet's proliferation. No nation-state or other entity may assert ownership over the internet, nor may they exercise authority or control over it. The fact that content protected by intellectual property rights is stored in digital format makes it vulnerable to pervasive infringements when uploaded to the internet. Due to the characteristics of the internet, this is true. Conventional notions of jurisdiction and governance have many facets, but they are no longer pertinent in light of this reality.

The existence of empirical evidence has confirmed the validity of this hypothesis. A staggering number of brand-new legal issues have emerged as a result of the lightning-fast development of communication and information technology. As a result of technological advancements, it is now possible to duplicate the content of a website and either modify it or reproduce it on another website. You may choose either option. This can be accomplished in two ways: either directly or by copying and pasting the desired text. As a direct result, the conventional understanding of individual rights and protection has been subjected to new challenges. Despite the fact that copyright and trademark violations do occur on the Internet, the Copyright Act of 1957 and the Trademark Act of 1999 remain reticent on the subject of concerns regarding online trademark and copyright infringement. Despite protecting computer programs, the Copyright Act does not address the issue of illicit software downloads over the Internet. Even though it was intended to protect computer programs, this is the case. India does not currently have any procedures for the enforcement of laws to ensure that intellectual property rights are protected in cyberspace.

This theory is supported by the fact that advancements in information storage technology have

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made the process of information duplication more accessible, user-friendly, and cost-effective for a greater number of users. The fact that there have been advancements in information storage technology supports this theory. Due to the development of new technological capabilities, the traditional notions of "rights," "infringements," and "fair use" are becoming increasingly convoluted. Due to the fuzziness of definitions, it is likely that the traditional method of intellectual property enforcement, which consists of filing a civil action against a violator, will no longer be effective in protecting the creative and economic interests of intellectual property holders. This possibility arises due to the lack of precision in traditional definitions. This is due to the fact that the conventional system depends on a clear distinction between what is and is not protected by intellectual property law. Due to the interconnected nature of the Internet, enforcing national laws on intellectual property rights, which are frequently subject to the jurisdictions of particular geographic regions, can be a difficult and time-consuming endeavor. Therefore, national laws are constrained by the laws of specific territories. However, it is unclear whether these policies effectively protect intellectual property rights on the Internet. However, it is unclear whether these regulations also protect intellectual property rights in cyberspace.

Currently, the legal system is confronted with a number of issues relating to the violation of intellectual property rights. Hyper linking and Meta tagging are two online techniques that have contributed to the emergence of these difficulties. In some regions, courts have determined that hyper linking, and more specifically deep linking, can comprise a violation of copyright, and that meta marking can also be considered a trademark infringement. Similarly, both of these methods of connection may constitute trademark infringement. The fact that intellectual property concerns in the digital world are both technological and legal in character makes the work of law enforcement agencies extremely challenging.

This concept has been thoroughly examined and investigated. Cyberspace poses a problem for the legal system because it is difficult to ascertain which jurisdiction has jurisdiction in the event of an internet-based dispute. This is a result of the elimination of all former geographical boundaries separating states. Despite this, none of the extant international legal instruments address how to determine which court has jurisdiction in the event of an Internet-related dispute. In an endeavor to establish solutions to the new problems that the expansion of digital technology has posed, discussions have begun. Presently, the relevant authorities are attempting to overcome the obstacle posed by the extant legal regulations. The Internet Corporation for Assigned Names

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and Numbers (ICANN), the United Domain Name Dispute Resolution Policy (UDRP), and the World Intellectual Property Organization (WIPO) established a new type of dispute resolution because it is impossible to apply traditional forms of legal protection to cyber squatting and copyright infringement, as well as because it is expensive and difficult to bring lawsuits against infringement in cyberspace. The Uniform Domain Name Dispute Resolution Policy (UDRP) is the name of this new variety of dispute resolution. On the other hand, there is adegree of ambiguity regarding the application of national legal precedents. Since it does not appear that the concepts underlying copyright, trademark law in India, and the Internet are consistent with one another, such issues may result in a contradictory copyright position. Despitethis, such an occurrence is possible at some point. The World Trade Organization (WTO), the World Intellectual Property Organization (WIPO), the Internet Corporation for Assigned Names and Numbers (ICANN), and the Uniform Domain Name Dispute Resolution Policy (UDRP) are not forthright with information regarding this issue.

6.3 Suggestions

Based on the findings of the aforementioned study, the following recommendations have been made to combat intellectual property rights violations in cyberspace.

The general absence of technical knowledge among India's law enforcement agencies is a significant cause for concern. There is insufficient cyber law instruction for law enforcement officials. In order to effectively enforce intellectual property rights in the digital era, law enforcement officers must obtain the necessary legal and technological training. Law enforcement officials must receive this instruction. Attorneys, judges, and other judicial officers from both civil and criminal courts could partake in discussions on cyber law at the judicial level. In addition, workshops on cyber intellectual property laws could be conducted at the National Judicial Academy in order to improve understanding of the law and expedite the administration of justice in e-disputes.

There are insufficient legal provisions for retaining internet usage logs and files, which makes it difficult to combat infringement. It should be required to impose stricter restrictions on the maintenance of internet usage logs and registries. Appropriate legal structures will be required in order to solve these complex problems. It is strongly recommended that Section 79 of the Information Technology Act of 2000 be amended to require Internet Service Providers (ISPs) to

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keep and archive records for a sufficient amount of time in order to facilitate the process of tracing IP addresses, should this type of situation arise.

The Copyright Act of 1957 should be revised to include definitions for "reproduction," "fair dealing," and "copying." This would enable the interpretation of Section 52 of the Copyright Act, which addresses acts that do not comprise an infringement, to be based on these definitions, thereby bringing greater clarity and certainty to the law. The Copyright Act of 1957 should be revised to include definitions for "reproduction," "fair dealing," and "copying."

Section 52 of the Copyright Act should elucidate the criteria for determining when "unauthorized reproduction" of a work constitutes "fair dealing" of the work, as is the case in countries such as the United States and Singapore. This is comparable to the situation in countries like Canada.

5. The act of capturing content for personal use, such as research, educational, or instructional purposes, should be explicitly included in the definition of "fair dealing," in addition to surfing.

The linked locations should be considered "compilations" of the pertinent information.That is, uniform resource locators (URLs) and should therefore be recognized as subject matter ofcopying like the "directory of addresses," but the protection should not extend to the actual connections. It is possible to provide an explanation for the literary work definition that contains the word "collection" by stating that links are a collection of addresses. This is one possible explanation for this definition.

In order for legal requirements to be implemented and enforced, it is also necessary to carry out a few administrative procedures, which is the same as transforming legal instruments into something that can be utilized.For example, a central office should be established to serve as a coordinating agency between the special cells for copyright enforcement that have been established in a number of Indian states to investigate copyright violations. The purpose of these specialized divisions is to investigate copyright violations.

Both the voluntary copyright alert program in the United Kingdom and the Copyright alert system in the United States are effective methods for preventing intellectual property rights infringements. Comparatively to larger, national or international searches for copyright andtrademark violations in cyberspace, a private system that notifies, educates, and punishes Internet subscribers who engage in peer-to-peer file sharing is an effective mechanism that will be accessible at the local

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level. India must immediately implement a monitoring system of this type.

In the absence of clearly defined procedural law, as well as due to the unique characteristics of cyberspace and the fragility and susceptibility of electronic evidence, it is imperative that law enforcement agents issue search and seizure warrants in order to collect mirror images of the systems as soon as possible. Consequently, this substantially complicates the work of law enforcement authorities. Modifications must be made to the procedural provisions of the Indian Copyright Act, Trademark Act, and Information Technology Act in order to include an agency tasked with monitoring allegations of infringement and taking appropriate action when necessary.

In the digital age, the anonymity of the Internet makes it more difficult to track down those who violate intellectual property rights. The use of proxy servers and other deception technologies makes it more difficult to locate individuals who violate intellectual property rights. It is proposed that adequate personnel and resources be allocated to the development and propagation of technologically competent IP tracing applications, as well as the training of forensic scientists. In addition, it is suggested that a sufficient number of instructors be assigned to forensic science courses. To locate and identify cybercriminals who commit their offenses on the internet, it is necessary to have technologically advanced tools and software that can detect deception andtrace the correct IP addresses.

Computer Emergency Response Teams (CERT) must be granted the authority to intercept, filter, or block infringing information that threatens national security, the integrity of a state, or the public welfare, in addition to taking other preventative measures. 11. Organizations responsible for assuring the security of the Critical Information Infrastructure and Computer Emergency Response Teams (CERT) must be granted legal authority. Improving online security will also necessitate the establishment of legally recognized accreditation institutions, the adoption of certification standards, the office of the Controller of Certifying authority, and the development of procedures for enhancing information security. These will all play significant roles in the process.

12. The term "cyber squatting" must be defined, and the provisions of the Information Technology Act of 2000 and The Trademark Act of 1999 pertaining to cyber squatting must be modified to include statutory damages and penalties for chronic offenders.

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Before approving a domain name application, the competent authority should require the applicant to disclose the reason why they require the domain name. If he uses the domain name for any other purpose without the authority's permission, his registration must be promptly canceled.

The Trademark Act of 1999 must be amended in order for domain names to be recognized as distinct marks.

15.The legal system has proven ineffective in preventing trademark and copyright infringements through linking to and framing websites. The current copyright and trademark regulations should be revised to provide adequate remedies and encourage the implementation of preventive measures. It is possible to demand that the infringer include a disclaimer stating that the linked or framed website has no affiliation with the linked or framed website. The viewer may be presented with a generic notice informing them that they may be redirected to a different website. These warnings or disclaimers must be placed in a prominent location where they are readily visible and readable. The website owner can also implement web page security software to prevent unauthorized linking and framing of the website's content.

In addition to international treaties, there should be a universal cyber law for the protection of intellectual property rights in cyberspace to address the problem of intellectual property rights infringement in cyberspace and the involvement of multiple jurisdictions. Global efforts to unify cyber laws will play a significant role in closing existing voids in the legal framework governing cyberspace by crystallizing existing laws.

India needs new legislation to adjudicate domain name disputes in accordance with ICANN and UDRP in the twenty-first century. There is no law in India that specifically addresses theresolution of domain name disputes. Current trademark laws do not provide adequate protection against cybersquatters and other categories of domain name disputes for trademark owners. To provide legal recourse to owners of trademarks and service marks against defendants whopurchase domain names "in bad faith" that are identical or confusingly similar to a registered trademark, a new or more precise law on domain name disputes is required. This is required to safeguard trademark and service mark proprietors.

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Companies that sell products with protected trademarks are required to develop and implement social media policies that prevent the infringement of copyright and trademarks. Businesses must implement social media strategies in order to reduce the risk of cybercrime. Customers and employees must be instructed on the significance of recognizing and respecting intellectual property. Brand owners can select highly pertinent social networking sites for monitoring, and in the event of unauthorized use, they can assess the nature and commercial impact of the use in addition to filing a complaint with the social networking site and engaging the unauthorized user. Additionally, brand owners can identify highly pertinent social networking websites for monitoring purposes.

Cyber hijacking must be prevented at the level of domain name registration, and one method to do so is by comparing newly registered domain names to previously registered domain names for potentially deceptive similarities. In order to verify the registration information, a face-to-face interaction is necessary. In actuality, this action will aid in the prevention of cybersquatting. There are a substantial number of trademarks in this era of information technology; therefore, registrars should have a larger level of responsibility for examining domain name registration applications.

Linking the domain name and trademark registration systems is an immediate measure that must be taken to reduce the number of trademark infringement lawsuits involving the domain name system. Rodney A. proposed extending the applicability of this principle to the international level. Every country that has signed the Madrid Convention, which permits the use of a trademark registered in one country in other signatory countries. And the construction of a directory containing all of the world's trademarks, so that any registry that wishes to register

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