CHAPTER – I
INTRODUCTION

The 21\textsuperscript{st} Century is known as a century of science and technology. Science and technology in this century are undergoing rapid advancements. Changing technology has both a direct and an indirect impact on law and jurisprudence. The law should change with the changing pace of science and technology; otherwise, it will become obsolete.

Infringement of intellectual property rights in cyber era is a global phenomenon. Development of science and technology and the increasing need to gain access to information have broadened the horizons of cyberspace. A person sitting or working in any remote corner of the world can violate Intellectual Property Rights or other rights of any other individual residing anywhere in the world. The cyberspace has bestowed many gifts upon humanity; but at the same time it has become a place to do all sorts of activities which are prohibited by law.\footnote{Mayuri Patel & Subhasis Saha, Trademark Issues in Digital Era, JOURNAL OF INTELLECTUAL PROPERTY RIGHTS 118 (2012).} The Cyberspace is a borderless space and has led to many legal and jurisprudential problems and challenges for the enactment, enforcement and interpretation of laws. To meet changing demands of cyberspace, various sovereign countries have enacted a number of domestic legislations. On international level too, there are various Conventions enacted in the arena of cyberspace and intellectual property rights.\footnote{Such as, Conventions on the Cyber Crime, Convention Establishing the World Intellectual Property Organization, 1967 and other WIPO-administered Treaties; TRIPS, ICANN, Model Law on Electronic Commerce, 1996 etc.} At the same time, some international organizations\footnote{Such as, WTO, Council on TRIPS, WIPO, ICANN etc.} are working in order to meet challenges posed by cyber crimes and IPR violations. Domestic courts of states have been dealing with the problems posed by cyberspace, but have come up with inconsistent answers.\footnote{See, JUSTICE YATINDRA SINGH, CYBER LAWS, 4 (3rd ed., 2007). Some of the basic controversial cases are discussed in this book.} The present research is intended to critically analyze the existing legal framework of EU, US and India with respect to problems raised by cyberspace and copyright infringements in cyberspace.
1.1 PROBLEM STATEMENT

There are a number of national and international laws existing at the present for protection of Intellectual Property Rights in cyber space. With the world-wide reach of the internet, the millions of websites operating on the World-Wide Web, the ease of access to and copying of others’ intellectual property and the famed anonymity of this new medium, perhaps the most difficult task for intellectual property owners is detecting infringement and identifying the infringer.\(^5\)

The cyber crimes in various forms and Intellectual Property violations in particular on and through the internet are continuously on the rise. In 1999, business PC application software accounted for worldwide revenues of $21.6 billion – a 19% increase over the last year.\(^6\) A research undertaken by hankooki.com in 2003 has shown that cyber crimes increased 500-fold in 5 years.\(^7\) The Federal Computer Crime Unit registered a 45% increase in the Internet based crime compared to 2004.\(^8\) In 2003 the loss was $30 billion and it increased to $32.6 billion in 2004.\(^9\) Legal Week Survey published in May, 2013 shows that as many as 80% believe that their firm is likely to be hit by web hackers.\(^10\) An increasing rate of cyber crime and Intellectual Property is shocking though all cases are not registered. All cases are not registered because the owners of Intellectual Property are either not aware of the infringements or they do not bother about their rights.

The de-territorial nature and *modus operandi* of cyberspace have posed various legal and jurisprudential problems such as problem of jurisdiction, challenges for territory-based criminal justice system while dealing with extra-territorial copyright infringement in cyberspace, problems with regard to linking and copyright infringement in cyberspace. The cyberspace also has an impact on the traditional principles of international law and these impacts are applicable to copyright infringement too. These problems are analyzed in the later part of the research.

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1.2 LITERATURE REVIEW

1.2.1 Introduction

The present literature review is based on the selected and well cited books and articles on the issues selected by the researcher. The present literature review is undertaken in order to find out whether there are any gaps or lacunae in present literature with respect to problems or issues posed by the researcher.

Findings of the researcher are as follows:-

1.2.2 Problem of jurisdiction in cyberspace vis-a-vis copyright infringement and its impact on international and domestic laws:

The existing literature on jurisdiction has analyzed the fundamental principles laid down by the US courts and Constitutional limits to ‘reach of long arm statute.’ 11 There is adequate literature on the types of jurisdiction in common law and legal provisions on jurisdiction in UK and US. 12 The literature on jurisdiction has also focused on jurisdictional rules, choice of law and EU laws related to the jurisdiction. 13 There is literature commenting on the problem of jurisdiction and problem of copyright, trademark and patent violation in cyberspace. 14 There is sufficient literature deliberating upon the International laws and US, EU and Indian judicial pronouncements. 15 The recent literature mostly dwells around the international law and jurisdiction in cyberspace. 16 It has also considered various types of jurisdiction and application of its principles in various jurisdictions. 17

The existing literature on the problem of jurisdiction in cyberspace vis-a-vis copyright infringements and its impact on international and domestic laws lack a detailed discussion on the issue of jurisdiction in cyberspace and its impact on various principles of International law. There is inadequate literature on application of

international law and legal principles to problems posed by cyberspace. The present literature is also silent about aptness of International, EU, US and Indian Laws while dealing with copyright infringement in cyberspace. There is negligible literature on narrow and self-centric judgments delivered by various national courts and solutions to the same. Further, there is inadequate literature on the applicability and non-applicability of International, EU, US and Indian laws to cyberspace in instances of copyright infringement.

### 1.2.3 Hyperlinking vis-à-vis copyright infringement in cyberspace

The existing literature has deliberated upon Intellectual Property Rights in cyberspace. It contains information on copyrights, trademarks, confidential information and patent rights violations in the cyber space.\(^{18}\) The maximum existing literature focuses on Copyright Law and Internet.\(^{19}\) There is adequate literature deliberating on U.K. and European Legislative initiatives regulating Electronic Commerce, laws relating to copyright violations in cyberspace and cases decided by UK and US courts.\(^{20}\) There is a plethora of literature on basic concepts of copyrights and its infringement including P2P sharing.\(^{21}\) The researcher found literature commenting on the application of the US, EU and Indian Laws\(^{22}\) to cyberspace. There is literature on judicial pronouncements in the US, EU and India. The researcher found adequate recent work explaining the basic concepts of liking, framing and P2P sharing\(^{23}\) and its application in India. However there is inadequacy of literature analyzing problem of linking and copyright infringement from its various angles. The literature also lacks thorough analysis as to reasons why linking party and end-user be made liable.

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20 Ibid, Chapter no. 12, page no. 307-323.
1.2.4 Challenges for criminal justice system in dealing with cross border copyright infringement in cyberspace

The existing literature in this arena dealt with various frauds, problem of policing and initiatives taken by EU. It has also analyzed the domestic problem of policing in cross border offences. A recent work on Cyber Laws has considered the basic provisions relating to an investigation under Information Technology Act, 2000, and amendments to other laws and case laws. Further, various authors have analyzed the basic principles followed in adversarial criminal justice system and inquisitorial criminal justice system. The researcher found considerable literature analyzing Advantages and Disadvantages of Adversarial System in Criminal Proceeding. The existing researchers have also focused on the need to adopt some good principles of inquisitorial criminal justice system in order to improve adversarial criminal justice system.

However, the present studies lack in analysis of problems faced by adversarial criminal justice system in dealing with cross border copyright infringements in cyberspace. The researcher found shortage of literature on challenges faced by an Adversarial Criminal Justice System in dealing with cross border copyrights infringement in cyberspace.

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27 Ibid, chapter- 8; page no. 37-44.
1.2.5 Summary of Literature Review
The analysis of the literature on the problem of jurisdiction shows that there is only basic literature available on the issue of jurisdiction in cyber space. The literature is lacking in analysis of the issue of jurisdiction from its jurisprudential angle. There is a dearth of literature considering the problems posed by new technological advancements such as BitTorrent etc. Further, the literature on the cyber jurisdiction is lacking in analysis of the impact of self-centric and narrow judgments delivered by various domestic courts. The researcher found paucity of literature analyzing aptness of national and international laws in the era of cyberspace and the virtual world. Therefore, there is a need to analyse the problem of jurisdiction from its various angles by considering recent technological advancements.

The literature review on the problem relating to linking and copyright infringement in cyberspace shows that there is adequate literature on the concept of linking and types of linking, etc. However, it is lacking comprehensive discussion based on the issues from its various angles. It also lacks detailed discussion as to the logic behind applicability and non-applicability of the present laws to the problem of linking and copyright infringement in cyberspace. The authors have not analyzed the legal principles in detail, while commenting upon the liability required to be imposed on various persons involved in the linking in cyberspace. Therefore, there is a pressing need to analyze in-depth the issue of linking and copyright infringement in cyberspace.

The literature review of the challenges for adversarial criminal justice system in dealing with cross border copyright infringements shows that there is adequate literature on the basic concepts and principles followed in adversarial and inquisitorial systems. There is negligible literature on challenges faced by an Adversarial Criminal Justice System in dealing with cross border copyrights violation in cyberspace. Therefore, there is a need to revisit the problems highlighted by the researcher in the present research.
1.3 RESEARCH OBJECTIVES

Following are the main objectives of the research:

To highlight and comment upon the nature of cyberspace and application of the established principles of international law on jurisdiction to copyright infringement on cyberspace

To critically analyze the problem of jurisdiction in cyber space with the help of principles of International law and relevant judgments and laws from EU, US and Indian jurisdiction

To evaluate impact of cyberspace on the established principles of international law on jurisdiction.

To analyze and comment upon challenges for adversarial criminal justice system in dealing and co-operating with extra-territorial copyright infringements from inquisitorial criminal justice system or EU jurisdiction.

To analyze and comment upon linking and copyrights infringements in cyber space

To evaluate a need to establish a supra-national organization in dealing with cyberspace and copyright infringements

To recommend appropriate amendments in International and respective national laws to resolve the above mentioned problems

1.4 RESEARCH QUESTIONS

1. Are established principles and doctrines of international law on jurisdiction applicable to the cyberspace?

2. Do conflicting laws and self-centric judgments on the issue of jurisdiction create chaos in dealing with problems posed by cyberspace?
3. Whether de-territorial nature of cyberspace has any impact upon the established principles of international law? Or Is there any need to establish and apply new or modified principles and doctrines of international law to cyberspace?

4. Whether the cyberspace has posed legal and jurisprudential challenges before the Adversarial Criminal Justice Systems in dealing and co-operating with cross-border copyrights infringements from Inquisitorial Criminal Justice Systems?

5. Do laws in India and US provide adequate protection to copyrights with regard to hyperlinking in cyberspace?

6. Is there a need to establish a supra-national organization in dealing with cyberspace and copyright infringements?

1.5 SIGNIFICANCE / UTILITY OF THE RESEARCH

In every research, one of the key questions that arises is: why this topic? Or what is the importance or the significance of the research? The cyberspace is a new and ever-evolving area. The nature and working of the cyberspace has posed multiple problems confronting the international and domestic laws. The problems and self-centric solutions to the said problems have been creating chaos in cyberspace. It also has an impact on established principles and understanding of domestic and international law. Therefore, there is an urgent need to analyze and resolve the problems posed by cyberspace. Furthermore, an Intellectual Property protection works as a backbone of the country’s economy. It is one of the most important factors for boosting a country’s economy. Thus, it is not wise to neglect problems posed by cyberspace in general and copyrights infringements in cyberspace, in particular.

The research would be useful because of the following reasons:

The findings of the research may be useful to legislators in order to fill up gaps in their respective legislations. The research may be utilized by Judiciary, while dealing with various legal and jurisprudential problems posed by cyberspace and copyright infringements in cyberspace. It may be used by international organizations in order to
resolve problems faced at international level with regard to the subject of study. Further, the findings of this research or problems posed in this research may be used by other researchers for further study. Furthermore, the present research may be utilized by various academicians, lawyers and students of law in order to understand the complexity of the subject and problems posed in this research.

1.6 METHODOLOGY AND METHODS USED

The researcher has relied upon the Doctrinal Research Methodology, which is also known as library based research. This research methodology is utilized to criticize or analyze laws, rules, regulations, judicial pronouncements, legal doctrines and principles with the help of criticism and analysis by various other jurists, authors or writers. The analysis and criticism with the help of available material were helpful to reach scientific conclusion.

1.6.1 Approaches/Process used

In the context of the problems posed and objectives to be achieved, the following research approaches are applied:

1.6.1.1 Collative Process and Impact Analysis

A collative process is utilized in order to find out the effects of existing national or international laws in relation to laws existing in other countries or impact on national law or international law. This research was intended to evaluate the effects of cyberspace on the International Law and Domestic Laws on one hand and effect of conflicting judgments and principles laid down by domestic courts on the other hand. The impact analysis is carried out to find out the impact of an established or newly formed legal principles, rules or institutions. On the basis of its outcome, the necessary changes may be made, wherever necessary. In the present study, the above approach is used to analyze: a) impact of cyberspace on International and national laws; b) impact of judicial pronouncements made by one domestic jurisdiction upon other foreign jurisdictions; c) impact of nature of cyberspace, laws and case laws upon copyright protections.
1.6.1.2 Interpretative Research Process
This process aims at interpreting various words, phrases, doctrines, etc. This kind of research is confined mostly to the study of statutes, texts and judicial pronouncements and analysis of words and terms, etc. In the present context, an attempt is being made to interpret judicial pronouncements, doctrines, words and phrases.

1.6.1.3 Comparative Approach
This approach is utilized to compare Indian laws and case laws vis-à-vis US and EU laws and case laws.

1.6.2 Method used
In collecting, analyzing and interpreting the data, researcher has relied upon the qualitative method of data analysis. The researcher has further relied upon the inductive method of data analysis while analyzing and interpreting the data in the present research.

1.7 SOURCES OF DATA
The Library, Internet (Including Legal Databases, like LexisNexis, West Law, SCC Online, Manupatra etc.), News Papers and Periodicals are utilized as sources of data collection.

1.8 SCOPE AND LIMITATIONS OF THE RESEARCH
The scope of the research is restricted to the problem of jurisdiction, problems before the adversarial criminal justice system, problem with regard to linking and copyright infringement in the US and India. The problem of jurisdiction is limited to laws, case laws and principles applicable to criminal laws in the above countries. The problems before an adversarial criminal justice system are restricted to a few problems faced by it while dealing and co-operating with countries following inquisitorial criminal justice system. The problem posed by the linking is limited to copyrights infringements only; and the researcher has not considered linking and trademark infringement or violation of the law of tort.
The fundamental limitations to the research resulting from lack of time, money and resources are as below: a) the researcher could not study all the literature with respect to the subject matter of the research; b) the researcher could not study each and every case law with regard to the scope of the research. Therefore, the researcher has selected fundamental cases for analysis; c) the researcher could not study each and every problem posed by cyberspace. The study, therefore, is limited to the selected problems posed in the research.

1.9 RULES OF CITATION
The researcher has followed Blue book (19th ed.) Rules of Citation in the present research. (See Annexure I)

1.10 ISSUES ADDRESSED AND SCHEME OF CHAPTERISATION
The revolution in the arena of the cyberspace has led to many jurisprudential and legal problems. The researcher has divided research into five main chapters and sub-chapters. Broad scheme of chapterisation is as follows:

Chapter – I : INTRODUCTION
Chapter – II : PROBLEM OF JURISDICTION IN CYBERSPACE AND ITS IMPACT ON INTERNATIONAL AND DOMESTIC LAWS
Chapter – III : CHALLENGES FOR CRIMINAL JUSTICE SYSTEM IN DEALING WITH CROSS BORDER COPYRIGHT INFRINGEMENT IN CYBERSPACE
Chapter – IV : HYPERLINKING VIS-À-VIS COPYRIGHT INFRINGEMENT IN CYBERSPACE
Chapter – V : CONCLUSION AND RECOMMENDATIONS