E-ISSN:2583-1208 Volume:2 | Issue: 1 | 2022

DSNLU JOURNAL OF SCIENCE, TECHNOLOGY AND LAW

About CIPR&T:

Intellectual Property (IP) is a creation of mind and it confers right to the creator by the law towards the exclusive use of his creation. Though this right is granted for a certain period, the exclusive nature of it makes it significant. In India IP law has undergone a significant change due to TRIPS, which has a direct impact on legal regime pertains to patents, copyrights, designs, trademarks, geographical indications etc. The existing IP laws were amended from time to time to be on par with changes internationally. In recent years Intellectual Property Rights (IPR) emerged as the most important policy instrument. With its growing presence, however, it has also been subjected to intense criticism. Moreover, the structure of the institution itself has undergone periodic changes with incorporations of newer subject matters into its ambit. It is the endeavour of the C-IPR to become the beacon in the field of Intellectual Property Rights by encouraging synthesis of knowledge and best practices cutting across academia, practitioners and research fraternity.

DAMODARAM SANJIVAYYA NATIONAL LAW UNIVERSITY

Nyayaprastha, Sabbavaram, Anakapalli district,
Andhra Pradesh, India 531035

E-MAIL: ipr@dsnlu.ac.in | Website:www.dsnlu.ac.in

CENTER FOR INTELLECTUAL PROPERTY RIGHTS AND TECHNOLOGY Volume:2 | Issue:1

CENTER FOR INTELLECTUAL PROPERTY RIGHTS AND TECHNOLOGY

DAMODARAM SANJIVAYYA NATIONAL LAW UNIVERSITY

Information and Disclaimer

Published by

DAMODARAM SANJIVAYYA NATIONAL LAW UNIVERSITY

Citation for the Volume – 2 (1) DSNLU J. SCI. TECH. L. (2022)

Editor's Note

It gives me immense joy to present Volume II of the DSNLU Journal of Science Law and Technology, 2023. The Journal is a Peer Reviewed Bi-Annual Online Journal. In recent times, the discussions around the law of Intellectual Property Rights & Technology have taken great momentum. It is a known fact that the development of humankind depends on creation of new technology and inventions. These technologies and inventions require a lot of effort, time, energy etc. To recognise and encourage these developments, it is important to give these creators, rights in the form of IPR to exploit their creations. Also, IPR and technology has become an important component of national economic policies. The governments are under pressure to design an IP system that best serves the interest of the country. Thus, it is important to understand the implications of different IP policies. Keeping these in mind, the journal aims to serve the purpose of promoting research in legal, economic, socio-legal, technological and entrepreneurial aspects of new and emerging areas of IPR and technology.

The contributions for this issue have been made by leading academicians, lawyers, researchers and students. This issue covers articles on Patentability of Computer Related Inventions, AI and Computer Generated Works, Evolution of IPR Laws and its Application in Agriculture Bio-technology, Digital Forensics Tools for Social Media Investigations, Google AdWords Program Through the Lenses of the Indian Trademark Law, Internet of Things in Healthcare During Covid-19, Patenting Prospects of Nanotechnological Inventions in India, Need for a Repaired Safe Harbor for Ecommerce Platforms, Online Gaming and Regulation in An Inverse Proportion, Pegasus Spyware as Seen from a Legal Lens, The Role of Lesser Penalty in India's Competition Market in The Era of Digital Communication, ASCI Guidelines on Social Media Influencer Advertising.

I am thankful to Prof. (Dr.) S. Surya Prakash, Hon'ble Vice-Chancellor of DSNLU, Visakhapatnam for entrusting me the responsibility of editing the first volume of the Journal and I am extremely thankful to the Editorial Members of this issue for their dedicated and sincere work.

I also thank members of Centre for Intellectual Property Rights and Technology of DSNLU (CIPR&T) for their support in bringing out this issue.

Prof. (Dr.) P. Sree Sudha,

Dean of Examinations, DSNLU,

Chair Person, CIPR&T and Managing Editor.

Index

Long Articles

Short Articles

Case Comment & Legislative Analysis

Patentability of Computer-Related Inventions Under IPR Law

Ayush Amar Pandey* and Shourya Shubham**

Abstract

In this fast pacing world where the milestones for the future are changing for the better, now and then, inventions have become the centre of it all. The need of the Intellectual property rights (IPR) has become even more significant without which there will be chaos in the world. This article provides a detailed insight about the position of law relating to the issue of patentability of computer-related inventions around the globe with special reference to India and discusses in depth the determining factors for the exclusion of subject matters relating to Computer Related Inventions (CRIs). The question "whether the scope of exclusion for patentability as provided in Section 3(k) of The Patent Act, 1970 extends to patentability of computer related inventions?" has been a subject matter of great debate which was clarified to a great extent by the court of law in the landmark case of FeridAllani v. Union of India. The landmark case of FeridAllani v. Union of India has struck a progressive outlook and has opened a new streamline of horizons for patentability of the computer-related inventions and has given a major boost to software development in India. The judicial decisions of the court of law as well as the guidelines and provisions laid down by the legislature for interpreting Section 3(k) of the Patents Act, 1970 shows an effort to align the Indian patent regime with global norms and standards.

Keywords: IPR, CRIs, Patentability, Guidelines, Progressive, The Patents Act, 1970

Literature Review

The intellectual innovators and researchers in the field of Computer Related Inventions (CRIs) have continually worked to ensure that their intellectual property rights are properly protected. In the modern era, the major patent offices around the world are consistently being confronted with the question revolving around the patentability of CRIs. To ensure consistent examination procedures, they have created manuals and examination guidelines for the review of patent applications from certain technological fields. Applications for patents relating to CRIs are subject to the same review procedures as those for other innovations, including assessment of novelty, inventive step, industrial usefulness, and sufficiency of

disclosure, among other factors.[1]These guidelines place a larger emphasis on the additional competence on the part of the examiner to determine if the subject matter falls under one of the excluded categories.[2]

In India, the present position of law with respect to the patentability of computer related inventions is that if the invention demonstrates a technical effect or a technical contribution, it is patentable even if it is based on a computer programme and since many inventions currently are computer-based, it is retrograde to say that all such inventions would not be patentable.[3] As a result, not all computer-based ideas are unpatentable. Furthermore, such technical effect or technical contribution should be established based on guidelines, statutory information, judicial precedents, and international norms.[4] The present position of law ensures that real discoveries produced on the basis of computer programmes are not denied patent, however, it also incorporates some significant gaps that are required to be addressed in order to bridge the gap and provide clarity.

It is notable that Artificial Intelligence continues to evolve globally and is expected to revolutionize the existing process and technologies. In this context, fundamental patent policy questions are being raised which are required to be addressed such as whether an invention be held unpatenable for the sole reason that it was created using AI. Moreover, the inventorship of Computer Related Inventions (CRIs) developed using AI is another complex legal issue which is required to be addressed by the patent regimes around the world.[5]Apart from these, there are other challenges as well, such as the legal liabilities in case of any wrongful act and other ethical issues with respect to Computer Related Inventions (CRIs) developed using AI. Since the patent regimes around the globe are regarded as drivers of innovation, they will

*Ayush Amar Pandey, 4th Year, BBA LL. B(H), Chanakya National Law University, ayushamarpandey8000@gmail.com.
**Shourya Shubham, 4th Year, BBA LL. B(H), Chanakya National Law University, shouryaas1509@gmail.com

[1]B.L. WADHERA, LAW RELATING TO PATENTS, TRADEMARKS, COPYRIGHT, DESIGNS AND GEOGRAPHICAL INDICATIONS 78 (Universal Law Publishing Co. Pvt. Ltd. 2016).

[2]The Office of the Controller General of Patents, Designs and Trademarks, Guidelines for Examination of Computer Related Inventions (CRIs), (Issued on June 30, 2017) (India).

[3]FeridAllani v Union of India, 2019 SCC Online Del 11867.

[4]RenuBala and Sukku, *India: Computer Programs Patentable If "Technical Effect" Or "Technical Contribution" Demonstrated: Delhi High Court*, MONDAQ (June 28, 2022, 05:23 P.M.) https://www.mondaq.com/india/patent/887640/computer-programs-patentable-if-technical-effect-or-technical-contribution-demonstrated-delhi-high-court.

[5]Report No. 161, Department related Parliamentary Standing Committee on Commerce, Review of the Intellectual Property Rights Regime in India, Rajya Sabha, Parliament of India, 2021 (India).

need to engage with this new reality.[6]With the right strategy, policies, and regulations in place, AI journey has the potential to lead to a brighter future. The ongoing policy development by the patent office, as well as the liberal judgements of the Indian Courts shows an effort to align the Indian patent regime with global norms and standards with a view to address these gaps and provide incentives to encourage research and development of computer related inventions.

I. Introduction: An Insight into The Sphere of Patentability of Computer Related Inventions (CRIs)

The last two decade has seen an enormous development in the scientific field giving rise to a lot of inventions thereby making Information Technology a significant tool. The word "Information Technology" refers to the entire process of entering, storing, retrieving, transferring, and managing data using computers and other networks, hardware, software, electronics, and telecommunications equipment.[7] Usually, the activities in the industries were carried out manually or mechanically making the whole process a little slow, but with the inclusion of computer and technology, it has witnessed tremendous growth.[8] With the advent of the internet, the international boundaries have shrunk, thereby creating a need for stricter protection for Intellectual Property creators in the domain of Computer Related Inventions (CRIs).

In India, the Copyright Act and the Patent Act both protect computer-related inventions. The Copyright Act allows for the protection of computer software as a literary work, but the protection is limited. Therefore, patent protection for this type of invention is preferred, since it provides broader and stronger protection.[9]

Recently, patent regimes have encountered challenges in processing patent applications relating to computer-related inventions and related technology. As a result, a set of examination criteria has been devised to screen out appropriate patent applications and ensure consistency in examination processes.

II. Provisions Relating to Patentability of Computer Related Inventions

[6]Dr. Kalyan C. Kankanala, Artificial Intelligence (AI) Inventions and Patents in India, The Centre of Excellence for Data Science and AI, NASSCOM, (Jan 12, 2023, 01:58 P.M.) https://coe-dsai.nasscom.in/artificial-intelligence-ai-inventions-and-patents-in-india/.
[7]The Office of the Controller General of Patents, Designs and Trademarks, Guidelines for Examination of Computer Related Inventions (CRIs), (Issued on June 30, 2017) (India).
[8]Ibid.
[9]Bishwanath Prasad RadheyShyam v. Hindustan Metal Industries AIR 1982 SC 1444.

A patent is an exclusive right granted for an invention, which is a product or a process that provides, in general, a new way of doing something, or offers a new technical solution to a problem. To get a patent, technical information about the invention must be disclosed to the public in a patent application.[10]

The Patents Act, 1970 does not define the term 'Patent'. According to the common understanding the term 'Patent' means an exclusive right granted by the appropriate government to the person who had made an invention, to use that invention as well as sell it for a fixed tenure.[11]

There are some criteria that need to be fulfilled in order for an invention to be patentable which are as follow: -

1. ***The subject matter:***

The first criterion is the subject matter of the invention.[12] Section 3 and 4 of the Patents Act entails the non-patentable subject matters which mean that every invention that does not satisfy the provisions of Section 3 and 4 of the Act is patentable.[13]

2. ***Novelty*:**

Section 2(l) of the Patents Act, 1970 defines novelty as any invention or technology not anticipated by publication in any document or used in the country or elsewhere in the world before the date of filing of a patent application with complete specification, i.e., the subject matter has not fallen into the public domain or that it does not form part of the state of the art.[14]The Patents (Amendment) Act, 2002 amended the definition of the invention[15] as "Invention" means a new product or process involving an inventive step and capable of industrial application. Therefore, the invention should not have been published in the public domain.

3. ***Inventive step:***

An Inventive step is defined under Section 2(ja) of the Patents Act, 1970 as a feature of an invention that includes a technological breakthrough above existing knowledge or has economic significance, or both, and renders the invention not evident to a person competent

[10]*World Intellectual Property Organization*, *Patents*, (June 9, 2022, 11:35 PM), https://www.wipo.int/patents/en/.
[11] Rishabh Jain, *Patentability Criteria of an Invention and When It Is Not Granted*, LEGAL SERVICES INDIA (June 24, 2022, 9:29 PM), https://www.legalserviceindia.com/article/l300-Patentability-Criteria.html.
[12] P NARAYANAN, PATENT LAW 187 (Eastern Book Publishing House 2018).
[13]The Patents Act, 1970, § 3, 4, No. 39, Acts of Parliament, 1970 (India).
[14]The Patents Act, 1970, § 2(l), No. 39, Acts of Parliament, 1970 (India).
[15]The Patents Act, 1970, §2(1)(j), No. 39, Acts of Parliament, 1970 (India).

in the art.[16] This means that the invention must not be obvious to a person who is skilled in the same field.[17]

4. Capable of Industrial Application:

Industrial applicability is defined under Section 2(ac) of the Patents Act, 1970 as the invention is capable of being made or used in an industry.[18] This means that the invention cannot exist in abstract and must have some practical utility.[19]

These are the statutory requirements for an invention's patentability. Aside from that, disclosure of an enabling patent is an important criterion for obtaining a patent.[20] An enabling patent disclosure means that a patent draft specification must sufficiently disclose the invention to allow a person skilled in the same field as the invention to carry out the invention without undue effort.[21] A patent will almost certainly not be granted if the patent specification does not disclose an enabling patent.[22]

Section 3 of the Patents (Amendment) Act, 2002 entails explicit exclusions from patentability under section 3 for Computer Related Inventions (CRIs) as under[23]: (k) a mathematical or business method or a computer programme per se or algorithms; (l) a literary, dramatic, musical or artistic work or any other aesthetic creation whatsoever including cinematographic works and television productions; (m) a mere scheme or rule or method of performing mental act or method of playing game; (n) a presentation of information; (o) topography of integrated circuits;

It does not, however, outright prohibit the patenting of inventions relating to computers in India. Despite the fact that the phrase “per se” as employed in Section 3(k) of the Act has not been definitively defined in Indian law, leaving room for interpretation.[24] The Joint

[16] The Patents Act, 1970, §2(ja), No. 39, Acts of Parliament, 1970 (India).
[17]KSR v. Teleflex 550 U.S. 398; Pfizer v. Apotex, 480 F.3d 1348.
[18]The Patents Act, 1970, § 2(ac), No. 39, Acts of Parliament, 1970 (India).
[19] B.L. WADHERA, LAW RELATING TO PATENTS, TRADEMARKS, COPYRIGHT, DESIGNS AND GEOGRAPHICAL INDICATIONS 78 (Universal Law Publishing Co. Pvt. Ltd. 2016).
[20]Ibid.
[21] P. NARAYANAN, PATENT LAW 187 (Eastern Book Publishing House 2018).
[22] Senthil Kumar, *India: What Can Be Patented In India?*, MONDAQ (June 19, 2022, 08:34 PM), https://www.mondaq.com/india/patent/526406/what-can-be-patented-in-india.
[23] The Patents Act, 1970, § 3, No. 39, Acts of Parliament, 1970 (India).
[24]*IP Office takes aim at Patentability of computer-related inventions in India*, LEXOLOGY (June 24, 2022, 11:09 PM), https://www.lexology.com/library/details.aspx?g=d41affce-808d-4eab-a3ee-1d860ce69cce.

Parliamentary Committee while introducing the Patents (Amendments) Act 2002 has demonstrated the legislative intent to attach the suffix 'per se' to computer programmes[25]:

"*In the new proposed clause (k) the words "per se" have been inserted. This change has been proposed because sometimes the computer programme may include certain other things, ancillary thereto or developed thereon. The intention here is not to reject them for grant of the patent if they are inventions. However, the computer programmes as such are not intended to be granted patent."*

III. Guidelines on Examination of Computer Related Inventions In India

In order to promote uniformity and consistency in the examination of inventions and their corresponding applications, the guidelines for the examination of patent applications in the field of CRIs have been developed. It discusses the approach that examiners should take when scrutinizing these applications and how the law has developed to grant or reject patents in these technological fields.[26]

Section 3(k) of the Patents Act 1970, excludes the patentability of computer programmes per se which caused ambiguity and vagueness in the regime of Computer-Related Inventions in India for many years. As per the Guidelines for Examination of Computer Related Inventions by the office of the Controller General of Patents, Designs, and Trademarks, computer-related inventions are defined as those that involve:

1. The use of computers;
2. Computer networks;
3. Other programmable apparatus.
4. Inventions with one or more features that are realized wholly or partially using a computer programme.

A software patent application is eligible for patentability if the software does not fall under any of the categories of inventions mentioned in section 3 (k) of the Indian Patent Act which includes mathematical or business methods or a computer programme *per se* or algorithms as the excluded subject matters for patentability.[27]

[25]*Id.*
[26]*Id*. at 1.
[27]The Office of the Controller General of Patents, Designs and Trademarks, Guidelines for Examination of Computer Related Inventions (CRIs), (Issued on June 30, 2017) (India).

The Office of the Controller General of Patents, Designs, and Trade Marks (CGPDTM) published Revised Guidelines for Examination of Computer-related Inventions (CRIs) in 2017 replacing the previous guidelines on it.[28] The revised guidelines are short and precise as compared with the previous versions and have relaxed the criteria for patentability of the CRIs.[29]The substance or nature of the claims is to be taken into consideration to determine the technical nature of the invention. The primary focus should be on the underlying substance of the invention, not the particular form in which it is claimed.[30]*These regulations took a more lenient stance, allowing computer-related inventions with a technical impact and contribution to qualify as patentable subject matter*.[31]

These recommendations do not, however, amount to rulemaking. The provisions of the Patents Act, 1970 and the rules made thereunder shall take precedence over the provisions of these guidelines in the event of any inconsistency. The guidelines are occasionally subject to change based on judicial interpretations, statutory amendments, and helpful input from stakeholders.

IV. Determination of Excluded Subject Matters relating to CRIs

Patents are granted for inventions, whether products or processes, in all fields of technology, therefore, it is critical to determine whether the claimed Computer-related invention is of a technical nature involving technical advancement over existing knowledge or has economic significance, or both, and is not subject to exclusion under Section 3 of the Patents Act. Section 3(k) precludes from patentability mathematical methods, business procedures, computer programmes in general, or algorithms. This exclusion can be broken down further into the following categories[32]: -

1. **Claims directed as "Mathematical Method"**: Mathematical methods are an example of the rule that wholly abstract or intellectual processes are not patentable[33]. Mathematical processes such as calculating, equation formulation, determining square roots, cube roots, and other comparable mental operations are

[28]Ibid.
[29]Prigya Arora, *India: Revised Guidelines For Examination Of Computer-Related Inventions (CRIs),* MONDAQ (June 28, 2022, 11:34 PM), https://www.mondaq.com/india/patent/615532/revised-guidelines-for-examination-of-computer-related-inventions-cris.
[30]*Id.* at 21.
[31]Ibid.
[32] The Patents Act, 1970, § 3, No. 39, Acts of Parliament, 1970 (India).
[33] The Office of the Controller General of Patents, Designs and Trademarks, Guidelines for Examination of Computer Related Inventions (CRIs), (Issued on June 30, 2017) (India).

thus not patentable. Similarly, mere manipulations of abstract ideas or solving solely mathematical problems/equations without indicating a practical application fall under this category's exclusion. The mere use of a mathematical formula in a claim to clearly identify the extent of protection sought in an invention, on the other hand, does not always make it a "mathematical method" claim. Furthermore, such restrictions may not apply to inventions containing mathematical equations and resulting in systems for encoding, noise reduction in communications/electrical/electronic systems, or encrypting/decrypting electronic communications.

2. **Claims directed as "Business Method"**: The phrase "Business Methods"[34] refers to a wide range of activities in a business or industrial enterprise involving the exchange of commodities or services. The claims that were written not directly as "business procedures," but allegedly through some undefined mechanism, were deemed non-patentable. If the claimed subject matter, even partially, specifies an apparatus and/or a technical process for carrying out the invention, the claims must be assessed as a whole. When the substance of a claim is "business techniques," it is not patentable subject matter. However, the mere presence of words such as "enterprise", "business", "business rules", "supply-chain", "order", "sales", "transactions", "commerce", "payment" etc. in the claims may not lead to the conclusion that an invention is simply a "Business Method", but if the subject matter is essentially about carrying out business/trade/financial activity/transaction and/or a method of buying/selling goods via web (e.g. providing web service).[35]

3. **Claims directed as "Algorithm"**: Algorithms in any form, including but not limited to a set of rules or procedures, a sequence of steps, or any method expressed by way of a finite list of defined instructions, whether for problem solving or otherwise, and whether employing a logical, arithmetic, or computational method, recursive or otherwise, are not patentable.[36]

[34] Ibid.

[35] Adarsh Ramanujan, *Yves Choueifaty v. Attorney General of Canada: An Interesting Development from Canada on Claim Construction and Patent Office Manuals*, SPICYIP (June 24, 2022, 3: 38 P.M.) https://spicyip.com/2020/09/yves-choueifaty-v-attorney-general-of-canada-an-interesting-development-from-canada-on-claim-construction-and-patent-office-manuals.html.

[36] Priyanka Rastogi and Saipriya Balasubramanian, *India: Indian Patent Office Issued Guidelines For Examination of Computer Related Inventions (CRIS)*, MONDAQ (June 26, 2022, 09:22 P.M.) https://www.mondaq.com/india/patent/435058/indian-patent-office-issued-guidelines-for-examination-of-computer-related-inventions-cris.

4. **Claims directed as "Computer Programme per se"**: Claims aimed at computer programmes per se are not patentable, such as
    a. Claims directed at computer programs/sets of instructions/routines and/or sub-routines.
    b. Claims relating to "computer programme products" / "Storage Medium containing instructions" / "Database" / "Computer Memory containing instructions" stored on a computer readable medium.[37]

It is critical to evaluate the substance of claims by considering the entire claim. If a claim in any form, such as method/process, apparatus/system/device, computer programme product/computer readable medium, falls into one of the above-mentioned excluded categories, it will not be patentable. However, if the claim, in substance, does not fall into any of the barred categories, the patent should not be refused. As a result, in addition to establishing the merit of the invention as contemplated by Sections 2(1)(j), (ja), and (ac), the examiner should also determine whether or not they are patentable innovations as contemplated by Section 3 of the Act.[38]

V. Position of Law relating to Patentability of CRIs

1. Position in European Union

The case of *VICOM Systems Inc.*[39], which dealt with 'a technique and an apparatus for digitally processing photographs in the form of a two dimensional data array,' was one of the first important judgments that interpreted Article 52 of the European Patent Convention, which comprises of exclusions to patentability. The VICOM case established that, even though the idea behind an invention is thought to exist in a mathematical technique, a claim directed to a technical process in which the method is applied does not seek protection for the mathematical method as such. The Board's conclusion was that while the technique itself is not patentable, the technical procedure by which the method is applied is.

[37] Gaurav Gupta, *Meritorious win: Patentability of computer related inventions in India, Lakshmi Kumaran& Sridharan* (June 26 2022, 10:43 P.M.) https://www.lakshmisri.com/insights/articles/meritorious-win-patentability-of-computer-related-inventions-in-india/.
[38] The Office of Controller General of Patents, Designs & Trademarks, Manual of Patent Office Practice and Procedure, (Issued on Nov. 26, 2019) (India).
[39] VICOM Systems Inc., [1987] 2 EPOR 74.

2. Position in United Kingdom

In *HTC v. Apple*[40], the Court of Appeal assessed whether an innovation relating to touch sensitive screens that acknowledged multiple touches at the same time was patentable. Apple maintained that this invention was legitimate and patentable, citing the Halliburton decision. In this 2013 decision, the Court considered the various methods taken by UK courts and the European Technical Appellate Board and concluded to follow the VICOM line of authorities. The broad limits given out in this ruling are:

a. Whether the invention makes a technical addition;
b. It is necessary to look at the substance rather than the form; and
c. Regardless of the method taken by the UK Courts or the European Board of Appeal, the end outcome appears to be the same.

Further, the *HTC case*[41] held that if the invention could solve a problem within the computer or outside the computer, in either case it can have a technical effect and hence be patentable. Furthermore, the fact that the invention is implemented in software does not render it unpatentable. According to the preceding debate, even the United Kingdom, like the European Union (from which the laws in India are drawn), does not reject software-based innovations on the basis of excluded subject matter.

3. Position in USA

In *Bilski v. Kappos*[42], the US Supreme Court declared that business procedures are patentable if they meet the 'machine or transformation' criteria or have some practical use. Although the question in that case was whether a method of hedging [protecting oneself against loss on (a bet or investment) by making balancing or compensating transactions] could be patented, the Court determined that it was only an abstract idea that was fundamental to investment. While dealing with the excluded exception of 'idea', the US Supreme Court, in the case of *Alice Corp. v. CLS Bank International*[43], concluded that any invention that adds "substantially more to the abstract idea is patentable." Thus, according to Alice Corp., advancements to technical disciplines or computer operation can be granted patents. From the foregoing, it is obvious that the United States has added a similar criterion to the EU/UK, namely "much more", which is equivalent to technical effect and/or technical character/feature.

[40] HTC v. Apple, [2013] EWCA Civ 451.
[41] Ibid.
[42] Bilski v. Kappos, 561 U.S. 593.
[43] Alice Corp. v. CLS Bank International, 573 U.S. 208 (2014).

4. Position in India

In the case of *Telefonaktiebolaget LM Ericsson (PUBL) v. Intex Technologies (India) Limited*[44], when Ericsson sued Intex for infringing its standard essential patent and Intex claimed protection under Section 3(k), the court ruled that the words "per se" in Section 3(k) of the Patent Act, 1970 were absent. When this measure was referred to the Joint Parliamentary Committee, numerous experts and stakeholders advised that India followed the EU/UK way and not fully exclude computer programmes from patentability. After approving the aforementioned proposition, Parliament inserted the words per se, which were enacted in section 3(k) of the Patent (Amendment) Act, 2002. Thus, it appears prima facie that any innovation that has a technical contribution or has a technological effect and is not simply a computer programme per se, as the defendant claims, is patentable.[45]

In the landmark case of *FeridAllani v. Union of India*[46], the Delhi High Court took a liberal position and reiterated the rule for determining patent eligibility: "If the invention demonstrates a technical effect or a technical contribution, it is patentable even if it is based on a computer programme." Because many inventions currently are computer-based, it is "retrograde to say that all such inventions would not be patentable." As a result, not all computer-based ideas are unpatentable. The court proposed that "words 'per se' be added to ensure that real discoveries produced on the basis of computer programmes are not denied patents." Furthermore, only computer programmes 'per se' are not patentable. The court also stated that the IPO's restricted approach is inconsistent with worldwide practices and that Indian practices must conform to the global standard. The court stated that technical effect or technical contribution should be established based on guidelines, statutory information, judicial precedents, and international norms.[47]

[44]Telefonaktiebolaget LM Ericsson (PUBL) v. Intex Technologies (India) Limited, 2015 SCC OnLine Del 8229.
[45] Kartik Chawla, *Ericsson v. Intex, part II – The Perils and Pitfalls of Software Patenting*, SPICYIP (June 28, 2022, 01:31 P.M.) https://spicyip.com/2015/03/15017.html.
[46]FeridAllani v Union of India, 2019 SCC Online Del 11867.
[47]RenuBala and Sukku, *India: Computer Programs Patentable If "Technical Effect" Or "Technical Contribution" Demonstrated: Delhi High Court*, MONDAQ (June 28, 2022, 05:23 P.M.) https://www.mondaq.com/india/patent/887640/computer-programs-patentable-if-technical-effect-or-technical-contribution-demonstrated-delhi-high-court.

VI. Criticism of Decision in *FeridAllaniv. Union of India*

The ruling of the Hon'ble Delhi High Court in *FeridAllani v Union of India*[48]is very much welcome, but there were significant gaps in the court's reasoning that needed to be addressed in order to bridge the gap and provide clarity. These are as follows: -

1. Problems in interpretation of Section 3(k) and Section 2(1)(ja): The court did not elaborate on Sections 3(k) and 2(1)(ja) of The Patents Act, 1970. It would have been critical to clarify the scope of Section 3(k) and how broad its canopy is, as well as to place more emphasis on what constitutes a 'inventive step' as defined in Section 2(1)(ja) and the required ingredients to gain a better understanding of it. The court merely determined that Section 3(k)[49] must be interpreted in accordance with CRI recommendations.
2. The presence of undefined jargons-The court concentrated on 'technical effect'[50] or 'technical contribution' and how it is an indestructible component of computer-related inventions without fully defining the jargon, which would have been a progressive and instructive move.
3. Lack of proper reasoning-The petition was redirected to the patent office without any definitive reasoning or an answer to the question "why?". It simply stated that the 2016 guidelines must be studied and followed when dealing with Act provisions. This would have a knock-on effect on other applications that were refused or were not handled in accordance with the 2016 and 2017 criteria[51]. Following this logic would be aberrant, as it would render all such petitions eligible for reconsideration.
4. Only a short term solution -The definition of 'technological advancement' would have been the crux of the current case. The order, however, simply served as a "case by case" review, without elaborating on the phrase that would have clarified the patentability of computer-related discoveries.
5. Opened Floodgate of rejected claims- In the instant case, an opportunity to re-examine an application that was rejected prior to CRI guidelines was provided; if new guidelines are introduced in the future, this will set a dangerous precedent and open the door to re-examination of applications that were rejected prior to these guidelines.

[48]FeridAllani v. Union of India, 2019 SCC Online Del 11867.
[49] The Patents Act, 1970, § 3, No. 39, Acts of Parliament, 1970 (India).
[50]FeridAllani v Union of India, 2019 SCC Online Del 11867.
[51]The Office of the Controller General of Patents, Designs and Trademarks, Guidelines for Examination of Computer Related Inventions (CRIs), (Issued on June 30, 2017) (India).

6. Does not elaborate upon the legal issue surrounding the patentability of inventions created by AI - The decision puts a ban on the patentability of algorithms and computer programs unless it produces a technical effect or technical contribution which will be difficult to establish in an AI related invention in the absence of proper guidelines, statutory information, judicial precedents, and international norms dealing with the inventions creating using Artificial Intelligence.

VII. A Key Policy Issue: Patentability of Inventions Created using AI

The field of Artificial Intelligence and machine learning is evolving and is expected to revolutionise existing processes and technologies.[52]In this context, fundamental patent policy questions have been raised, such as whether an invention should be made unpatentable solely because it was created using AI. There can be two approaches to the deal with abovementioned question. The first is to declare AI inventions as un-patentable. This would require an appropriate and comprehensive definition of "AI invention." However, it endangers the hassle-free experience of patent system by making it restrictive and discouraging innovation. Second approach will be that use of AI should not be rendered un-patentable. This would preserve the innovation-promoting incentives that the patent system was designed to foster. However, it would require the patent regimes around the world to address and overcome the complex questions involving inventorship of AI and other challenges such as the legal liabilities in case of any wrongful act and other ethical issues.

Recently in 2022, the US Court of Appeal in the case of *Thaler v. Vidal*[53] held that AI cannot be an inventor as it is not a natural person as per the patent regulations of USA.[54] The Court strictly focused on the statutory interpretation of the term 'inventor'. The U.S. Patent Act defines an inventor as "*the individual or, if a joint invention, the individuals collectively who invented or discovered the subject matter of the invention.*[55]*"* While the Patent Act does not define an individual, the Court took reference of a 2012

[52]Discussion Paper, *National Strategy for Artificial Intelligence*, NITI AAYOG (Jan. 12, 2023, 11:34 PM) https://niti.gov.in/writereaddata/files/document_publication/NationalStrategy-for-AI-Discussion-Paper.pdf.
[53]Thaler v. Vidal, No. 21-2347 (Fed. Cir.)
[54]The United States Patent and Trademark Office (USPTO), Artificial Intelligence Patent Dataset, Research Dataset, (Jan. 12, 2023, 11:34 PM) https://www.uspto.gov/ip-policy/economic-research/research-datasets/artificial-intelligence-patent-dataset, visited on 16th July, 2021.
[55] US Patent Act, 1952, §100 (f), Title 35, United States Code, (US), 1952.

Supreme Court judgment which clarified that an "individual" is ordinarily understood to be a human being.[56]

Under the Indian Patent Act of 1970, mathematical and business methods, computer programmes per se or algorithms fall under non-patentable subject matter.[57] The Indian Patent Regime puts ban on the patentability of algorithms and computer programs unless it produces a technical effect or technical contribution which will be difficult to establish in an AI related invention due to the lack of guidelines, statutory information, judicial precedents, and international norms relating to inventorship of AI.[58]

Furthermore, existing law protects and grants exclusive rights only to the true and first inventor, specifically a natural person. Furthermore, copyright laws are insufficient to fully protect AI-related inventions because they do not protect the inventive concept underlying the expression. The parliamentary standing committee on commerce has also recommended creating a separate category of rights for AI and AI-related inventions.

The AI revolution brings a lot of opportunities to the table and the patent regimes around the world need to embrace it with open hands with the right moulds to implement it. The patent regimes will be required to engage with this new reality to be maximally effective in their crucial role as drivers of innovation

VIII. Conclusion

The question of patentability of computer-related innovations is clearly founded in a misinterpretation of the text of Section 3(k) of The Patents Act, 1970, judicial decisions, IPO decisions, and IPO guidelines. As a result, there has been a significant increase in the filing of computer-related inventions in India by various important national and foreign companies, and the IPO has been issuing more patents for these ideas. It is notable that manuals and guidelines can be used as a practical reference for effective patent application prosecution in India. It does not, however, constitute rulemaking and hence lacks the force and effect of law. These are amended on a regular basis depending on legal interpretations, statutory modifications, and useful input from stakeholders. Thus, computer-related inventions should be written in such a way that they avoid the statutory bar under section 3(k) of the Patents Act, 1970 while yet satisfying the patentability standards.

[56] Mohamad v. Palestinian Authority, (2012) 566 U.S. 449.
[57] The Patents Act, 1970, § 3 (k), No. 39, Acts of Parliament, 1970 (India).
[58] FeridAllani v. Union of India, (2019) SCC Online Del 11867.

The Court's ruling in *FeridAllani v Union of India*[59] is well appreciated and has far-reaching consequences in today's world. By modifying the requirements for appraising computer-related discoveries, the Court acknowledged the tremendous impact computers have on human (and Indian) technological growth and has opened doors for a considerable number of hitherto unprotected inventors. Furthermore, by recognising foreign office practices, the Court has suggested that office procedures and regulations in India must constantly adapt in order to meet global standards. The ongoing policy development by the patent office, as well as the liberal judgements of the Indian Courts interpreting Section 3(k) of the Patents Act, 1970 shows an effort to align the Indian patent regime with global norms and standards. With a more favourable patent regime in India, this order will serve to improve innovator's confidence in investing in India.

[59]FeridAllani v Union of India, 2019 SCC Online Del 11867.

Potato, Potahto: Evolution of IPR Laws and its Application in PepsiCo v Gujarat Farmers Case

Anasruta Roy*

Abstract

Intellectual property rights (IPRs) have a stronger influence on societal progress today than at any other point in history. Whether it is a debate the growth of open-source and free software movements or the exploration of ways to empower indigenous communities to benefit from traditional knowledge, or concerns about the impact of patenting plants, seeds, animals, genes, viruses, or pathogens for profit, it is a contentious issue. More importantly, for the purposes of this paper, granting patents and data protection rights on agricultural products has become increasingly hotly contested, particularly in low- and middle-income countries where monopoly prices associated with exclusive rights have made cultivation of several crops unviable for the vast majority of the world's population. The impact of intellectual property on low- and middle-income countries is enhanced by briefly exploring the historical development of intellectual property rights and the original purpose behind granting periods of monopoly as an incentive to stimulate innovation, followed by an analysis of a modern conflict between intellectual property and human rights, re: PepsiCo v Gujarat Farmers Case.

I. Introduction

A definition of intellectual property that goes beyond lists or instances and strives to address the basic characteristics of intellectual property must concentrate on two elements: the property element and the object to which the property element connects.

Intellectual property rights are frequently referred to as intangible rights. This categorization is based on the assumption that the object of the right is intangible. All property rights bind the right holder to others in a legal relationship. The primary distinction between real property rights and intellectual property rights is that the latter's object is non-physical. It can be considered an abstract object rather than a real item. It is possible to 'possess' an abstract item without really owning it. A letter written to a friend, for example, transfers the property in the letter but not the copyright.

For the purposes of this article, we shall define intellectual property 'rights of exploitation in information'[1]. In today's economy, information is becoming "the main asset."

Even in seemingly non-information businesses such as agriculture, control and ownership of genetic information has become a crucial issue in creating the industry's structure. Because information has become the major resource, exploitation of information through intellectual property rights has an impact on interests that are the subject of human rights claims. Property rights, by definition, allow the right holder to prohibit others from using this valuable resource, and so they are likely to result in cases of rights conflict. To show the concept succinctly: expression property (copyright) clashes with freedom of expression[2] .

A study of the earliest intellectual property policies, laws, and strategies over centuries reveals how countries have traditionally retained the adaptability to advance their strategic interests, such as technology transfer, the development of specific industrial sectors, and the attraction of foreign direct investment. In Europe, for example, even before the first patents were employed by governments as instruments to compel the transfer and disclosure of foreign technology, talented craftsmen were given temporary monopolies as an incentive to relocate to less technologically sophisticated areas and nations[3]. In the mid-14th century, when England was technologically lagging behind numerous locations in continental Europe, letters of patent were issued to facilitate the immigration of the Flemish weaver John Kempe[4] .

International intellectual property protection may be broadly split into three phases.[5] The territorial period is essentially the first period, distinguished by the absence of international protection The international competition is the second era, which began in Europe around the end of the nineteenth century with certain nations agreeing to the establishment of the Paris

*Anasruta Roy, B.A. LL.B (Hons.), National University of Advanced Legal Studies, anasrutaroy@gmail.com

[1] T. MANDEVILLE, UNDERSTANDING NOVELTY: INFORMATION, TECHNOLOGICAL CHANGE, AND THE PATENT SYSTEM, 3 (Ablex Publishing Corporation1996).

[2] For an account of how the conflict might be resolved see Melville B. Nimmer, *Does Copyright Abridge the First Amendment Guarantees of Free Speech and Press?*, 17 UCLA L. Rev, 1180 (1970)

[3] P David, *Intellectual property institutions and the panda's thumb: patents, copyrights, and trade secrets in economic theory and history*, in Wallerstein, Mogee & Schoen (eds.), *Global dimensions of Intellectual Property Protection in Science and Technology*, National Academy Press, Washington, D.C.

[4] E Wyndham Hulme, *The History of the Patent System under the Prerogative and at Common Law*, 46, Law Quarterly Review, 141-154 (1896).

[5]Dr. Peter Drahos, *The Universality of Intellectual Property Rights*, published by Queen Mary Intellectual Property Research Institute.

Convention for the Protection of Industrial Property, 1883 (the Paris Convention), and a comparable group signing the Berne Convention for the Protection of Literary and Artistic Works of 1886. The third phase, the global period, derives from the relationship that the

The United States of America was created by distinguishing between trade and intellectual property in the 1980s, which emerged at a multilateral level in the form of the Trade-Related Aspects of Intellectual Property Rights Agreement,1994 (TRIPS).[6]

II. The Historical Evolution

1. The Local Period

The first records of intellectual property date back to the sixth century BCE, from Sybaris in Ancient Greece. It reportedly offered bakers a year of exclusivity to produce their gourmet creation. In some ways, the emergence of intellectual property is credited to the origin of bread.

Our modern civilization was born into a culture of granting exclusive privileges. However, the fact that it has survived for millennia tells us something about how we value unique skills. Although the ancient Greeks still thought their discoveries to be divine gifts, acknowledging the human component of the creative process demonstrates that we are quite similar to our distant predecessors.[7]

In the dearth of written documents from prehistory, objects can teach us about societal ideals. For example, animal carcasses with early kinds of branding imply that early people associated produce quality with growing methods. This concept of putting a different value on the manufacturer – and, by implication, how they care for their animals – closely resembles the present trademark and patent characteristics.

The likeness of modern ideals to ancient ones, however, would be put on hold for a long period with the establishment of the Roman Empire. When religion came to the fore, the individualistic concept of creatorship took a step back. Emperor Zeno, approximately 480

[6]The TRIPS Agreement is binding on all members of the World Trade Organization. See Article II. 2 of the Agreement Establishing The World Trade Organization (the WTO Agreement). Both the TRIPS Agreement and the WTO Agreement are part of the Final Act Embodying The Results Of The Uruguay Round Of Multilateral Trade Negotiations, Marrakech, April 15, 1994.

[7] CRAIG ALLEN NARD & ANDREW P. MORRIS, CONSTITUTIONALIZING PATENTS: FROM VENICE TO PHILADELPHIA, 587(Faculty Publications 2006)

CE, abolished the entire notion of exclusive property on artistic and agricultural products. The Church seized complete control of the Empire.[8]

However, when humanism remerged via ancient literature, religious power over society diminished through time. This movement, which can be traced back to Aristotelian and Platonic worldviews in many aspects, laid the way for the Enlightenment. The first really recognised incarnation of Intellectual Property arose during this time of human appreciation.

As we escaped from traditionalism during the Renaissance, our appreciation for scientific and technical advances surpassed the prevalent orthodoxy. With the inflow of innovative models of thought came tremendous advances in engineering.

There was a greater emphasis placed on technologies with industrial applicability. This is demonstrated by the first patent with legal protection awarded to an Italian innovator in 1421. The 1421 license is also quite similar to our present patent protections.

However, legal protection for equal acknowledgment of works of art would come much later, during the European Reformation. While publishing guilds existed before the Reformation, licensing of the written word was frequently a one-sided transaction.

The Statute of Monopolies, enacted in 1623, empowered certain groups of persons to monopolize their industry. As a result, publishers held the majority of the rights to authored works. And, with the author in a losing position, changes were made to produce the present equivalent of the word license: the copyright.[9]

The various intellectual property subject areas emerge in different locales and at different periods. All of these regulations are most likely descended from the system of royal privilege-giving that appears to have existed throughout most of medieval Europe. Aside from England's statute of monopolies, in 1791, revolutionary France acknowledged the rights of inventors, while the United States of America passed a patent law in 1790. These patent laws were nothing like the complicated systems that exist today. They were fortunately brief,

[8] *ibid.*

[9] While the statute generally condemned monopolies, it provided the true and first inventor of a given item up to 14 years of exclusive rights provided that the rights were not contrary to the law, mischievous to the state by raising prices of commodities at home, did not result in the disruption of trade or were not generally inconvenient.

just acknowledging the inventor's rights. Following these early developments, patent law extended throughout Europe in the first half of the nineteenth century.[10]

III. The International Period

The official establishment of intellectual property laws in Africa, Asia, and the Pacific began in the late nineteenth century, spurred on by European colonial powers following the 1884 Berlin Congress.[11] The United Kingdom implemented variants of its 1911 Copyright Act in East Africa, Malaysia, and Nigeria.[12] Until the conclusion of the colonial period, France also applied its intellectual property rules to its colonies.[13] Despite the imposition of colonial rules, some countries, notably Asian countries, took advantage of the considerable flexibility provided to them to tailor intellectual property laws to match their economic goals.

States had started to realize that if they did not discriminate between citizens and foreigners when it comes to intellectual property rights legislation, other states would not either. States might gain protection for their writers' works in foreign jurisdictions in this manner.[14]

Bilateralism in intellectual property was significant in the nineteenth century because it contributed to the understanding that an international framework for intellectual property regulation had to be developed, and it offered a substance in terms of principles for that framework. However, this bilateralism was but a prologue. Its author protection was never sufficient.[15] The fundamental push for real international intellectual property cooperation came in the shape of two multilateral foundations: the Paris Convention of 1883 and the Berne Convention of 1886.

The idea of a unified international patent system had been circulating for some time, Prince Albert having raised the possibility of a harmonized patent system at the London World

[10] F. Machlup & E. Penrose, *The Patent Controversy in the Nineteenth Century*, 10 Journal of Economic History, 1, 3 (1950).

[11] C DEERE, THE IMPLEMENTATION GAME: THE TRIPS AGREEMENT AND THE GLOBAL POLITICS OF INTELLECTUAL PROPERTY REFORM IN DEVELOPING COUNTRIES, 35 (Oxford University Press 2009).

[12]Gana, *Two Steps forward: reconciling Nigeria's Accession to the Berne Convention and the TRIPS Agreement*, international Review of Industrial Property and Copyright Law, 27, 4: 446-489

[13] C DEERE, THE IMPLEMENTATION GAME: THE TRIPS AGREEMENT AND THE GLOBAL POLITICS OF INTELLECTUAL PROPERTY REFORM IN DEVELOPING COUNTRIES, 35-36 (Oxford University Press 2009).

[14] 2 S LADAS, PATENTS, TRADEMARKS, AND RELATED RIGHTS: NATIONAL AND INTERNATIONAL PROTECTION, 43, 54-55 (Harvard University Press 1975).

[15] 1 S. RICKETSON THE LAW OF INTELLECTUAL PROPERTY, 39 (Law Book, Sydney, 1984).

Exposition in 1851.The Paris Convention of 1883 was opened for signature. Within 25 years most major trading nations had joined the Convention. Like the Paris Convention, the Berne Convention had as its axis the principle of national treatment and a set of minimum rights which states had to recognize. An author wanting to know the extent of his protection in other countries would have had to consult a series of treaties and domestic laws.[16]

The emergence of intellectual property treaties coincided with the advent of international organizational structures. The Paris and Berne Conventions established international bureaus (secretariats), which united in 1893 to become the United International Bureaux for the Protection of Intellectual Property (abbreviated BIRPI in French).[17] In 1967, a new institution, WIPO, was founded by treaty to replace BIRPI. In 1974, WIPO was designated as a United Nations specialized agency.

Despite the fact that WIPO oversaw 24 international treaties in 1992, it presided over an intellectual property world with substantial regulatory variety. By 1992, the group had also felt, maybe more firmly than anybody else, the impending tidal change in intellectual property legislation.[18] The General Agreement on Tariffs and Trade (GATT) was ready to take care of it across the street from WIPO in Geneva. WIPO stood by while trade attorneys pushed the intellectual property world into the global era.

IV. The Global Era

During the international period, intellectual property harmonization was a very slow process. Following WWII, an increasing number of developing nations ratified the Paris and Berne Conventions. These conferences were no longer Western clubs, and under the one-vote-one-state principle, Western powers might be outvoted by a coalition of poor countries. Developing nations were not willing to just act as a veto bloc. They wanted an international system that catered to their level of economic growth, so they began to throw their weight around, at least in the eyes of the West. In the field of intellectual property, developing

[16] M. Kampelman, *The United States and International Copyright*, 41American Journal of International Law, 406, 410-411 (1947).

[17] A. BOGSCH, BRIEF HISTORY OF THE FIRST 25 YEARS OF THE WORLD INTELLECTUAL PROPERTY ORGANIZATION 7-8 (World Intellectual Property Organization,1992).

[18] *Id.*

nations, led by India, were successful in getting the acceptance of the Stockholm Protocol of 1967. The Protocol's goal was to provide developing countries with information.[19]

India had some of the highest medicine prices in the world throughout the 1960s. Its solution was to design its patent law to aid in the reduction of medicine prices. Patents were issued under Indian law for methods pertaining to the manufacturing of pharmaceuticals.

The international period was characterized by a culture that accepted a great deal of free-riding. The sole mechanisms for enforcement under the different intellectual property treaties were appeals to the International Court of Justice, although most governments expressed qualms about doing so.[20] When it came to free-riding, no state was in a position to throw the first stone. The United States of America was not a member of the Berne Convention, but American publishers took advantage of its greater levels of security 'through the back door' arrangement method of concurrent publishing in a Berne nation such as Canada.[21]

Intellectual property was mentioned as a negotiation subject during the Ministerial Meeting in Punta del Este in September 1986, which opened the Uruguay Round of trade talks. Although Europe, Canada, and Japan supported the inclusion of intellectual property in the Round, it was mostly a US effort. It was the United States of America, more especially the American corporate sector, that had made all the decisions about intellectual property.

The Uruguay Round finished on April 15, 1994, in Marrakech, with the signing of the Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations. The Final Act was signed by more than 100 countries. It included several accords, notably the World Trade Organization Agreement and the TRIPS Agreement. The TRIPS Agreement was made binding for all World Trade Organization members (WTO). There was no way for a state to avoid the TRIPS Agreement if it wanted to become or stay a part of the multilateral trade system.

[19] H. Sacks, *Crisis in International Copyright: The Protocol Regarding Developing Countries,* Journal of Business Law, 26 (1969).

[20] S. K. Sell, *Intellectual Property as a Trade Issue: From the Paris Convention to GATT*, XIII Legal Studies Forum, 407-422 (1989).

[21] H. G. Henn, *The Quest For International Copyright Protection*, 39 Cornell Law Quarterly,65 (1953).

V. Post -TRIPS Agreement

The TRIPS Agreement heralds the start of the global property age. The TRIPS Agreement is based on the territoriality and national treatment principles. However, it also signals the start of property globalization. The TRIPS Agreement covers all states that are members of the multilateral trading system or desire to join, such as China, through the trade linkage. One of the primary goals of the regional commercial organizations that have emerged in recent years is the adoption of the TRIPS Agreement. More broadly, intellectual property has begun to play a prominent role in 1990s regional agreements, notably trade agreements.[22]

States have previously been able to navigate their way through the international intellectual property system by making reservations to treaty terms or by refusing to ratify specific protocols or conventions. The TRIPS Agreement in its entirety is binding on all WTO members. By reference, the TRIPS Agreement encompasses several other intellectual property accords. Nations must consequently establish a uniform and expanded set of intellectual property norms, standards that grow increasingly common as more states participate in regional and global trade regimes. Standards are increasingly becoming mandated rather than discretionary for states. States, for example, have limited leeway in determining what is patentable and what is not.[23]

In the post-TRIPS age, international treaty-making in intellectual property has also continued. The WIPO Performances and Phonograms Treaty and the WIPO Copyright Treaty were signed on December 20, 1996, under the supervision of WIPO. The United States was a major proponent of a new international instrument to cope with the advent of copyright into the digital era. These discussions resulted in both gains and losses for copyright holders. The Copyright Treaty guarantees copyright owners the right to communicate with the public, but acknowledges governments' authority to define the scope of the copyright owner's right of dissemination.[24]

All of this implies that future global treaty-making in intellectual property will involve a complicated battle between user and owner organizations, the membership of which crosses

[22] 2 M. Blakeney, *The Role of Intellectual Property Law in Regional Commercial Unions in Europe and Asia*, 16Prometheus, 341, 349 (1998).

[23] The Report of The Working Group on Intellectual Property Rights, Intellectual Property and the National Information Infrastructure (Information Infrastructure Task Force, United States of America, September 1995).

[24] *ibid*.

national lines. On the issue of copyright reform, library associations, educational institutions, internet service providers, and software application developers are likely to band together to fight huge software businesses and publishers.[25]Indigenous peoples' non-governmental organizations (NGOs) and environmental NGOs are expected to band together to oppose the patent system's expansion to higher order biological forms. Intellectual property policy has become a highly political area in which state and nonstate players will continue to challenge not just intellectual property laws, but also market and government functions. Triumphs on the size of the TRIPS Agreement may become much more difficult to obtain in the future.

Intellectual property standards are also becoming part of the growing lex cybertoria - internet commerce norms. In a recent discussion paper, the International Chamber of Commerce (ICC) claimed that " cyberspace, all assets are intangible and can be categorized as intellectual property." In general, governments and commercial nongovernmental organizations (NGO's) have agreed that the intellectual property challenges presented by internet commerce must be addressed effectively.[26]So far, intellectual property norm-setting has largely taken the form of model laws developed by international organizations of states (for example, the UNCITRAL Model Law on Electronic Commerce), national law reform bodies (for example, the work of the National Conference of Commissioners on Uniform State Laws on Article 2B (dealing with the licencing of intellectual property rights)), or business non-governmental organizations(for example, the ICC).

1. Intersection of Human Rights and IPR

The preceding section demonstrated that intellectual property rights are part of a complex system of bilateral, regional, and multinational treaties that has evolved since the eighteenth century. This section examines briefly how far intellectual property rights have been acknowledged in the human rights regime.

The 1948 Universal Declaration of Human Rights is the worldwide declaration that constitutionalized the human rights framework (the UDHR). The Universal Declaration of Human Rights does not directly mention intellectual property rights, but Article 27.2 specifies that "everyone has the right to the protection of the moral and material interests emanating from any scientific, literary, or creative creation of which he is the creator."

[25] International Chamber of Commerce, *E-commerce roles, rules and responsibilities: A roadmap*, Jun. 4 1998, 11.

[26] *ibid.*

Simultaneously, Article 27.1 stipulates that everyone has the "freedom to engage in the cultural life of the society, to appreciate the arts, and to partake in scientific growth and its advantages."[27] Thus, Article 27 bears with it a classic issue in intellectual property law: the tension between regulations that protect information providers and rules that protect the public.[28]

The position of the right to property in international law creates several difficult questions. It does not appear to be contentious to say that the right to property is one of the rules of international law. Nations commonly acknowledge the property rights of their residents, as well as those of other states and their nationals, through practises and treaties. Travel, diplomacy, investment, and international business would be impossible without its recognition. The challenging questions concern the nature and scope of the right. Is it a negative right (the right not to have one's belongings violated) or a positive right (the right to acquire property)?

Property rights can be classified into several categories using various legal taxonomies (real, personal, equitable, tangible, intangible, documentary, non-documentary, and so on). Is it true that the recognition of a right to property in international law applies equally to all forms of property that may be identified? Are all, some, or none of these many types of property rights considered essential human rights?

Schermers concludes in an excellent exploration of these concerns that most property rights cannot be classified as fundamental human rights.[29] His argument is based on the assumption that human rights and property rights may be classified. He defines fundamental human rights as "human rights of such importance that international protection involves the right, or even the necessity, of international enforcement."[30] He claims that most property rights do not fall under this group. It is difficult to predict how intellectual property rights will fare. Further, he

[27] See, for example Article 11 of the ICESCR (promoting the dissemination of knowledge in the context of freedom from hunger), Article 15.2 (stating that the right in article 15.1 requires states to take steps to diffuse science and culture), Article 15.3 (requiring respect for freedom of scientific research) and Article 19.2 of the ICCPR (linking freedom of expression to the flow of information).

[28] 8 J. W. NICKEL, MAKING SENSE OF HUMAN RIGHTS, 66-67 (University of California Press1987).

[29] 3 H. G. Schermers, *The international protection of the right of property*, in F. Matscher& H. Petzold (eds.), *Protecting Human Rights: The European Dimension* (Carl Heymanns Verlag KG, Köln, 1988) pp. 565-580.

[30] Ibid. pp. 565, 579.

contends that the only feasible exceptions are needs-based personal property rights, without which the enjoyment of other rights such as the right to life would be worthless.[31]

Thinking about property rights in the context of human rights exposes the 'paradox of property.' On one level, it is unimaginable that human personality development and the preservation of individual interests within a group can occur in the absence of property regulations that ensure the stability of individual possession. However, no other rules require the constant changes that property rules do within the framework of the social group.[32]Modern governments are constantly changing the regulations governing the use of property, personal chattels, taxation, welfare, and so on. Property rights in modern society are constantly evolving. They are the mechanism through which governments deal with externality issues. As a result, when a universal right to property is recognised in a human rights document, it is subject to some broad public interest condition.[33]

As we have established, the current international intellectual property regime is a western positive law regime moulded by liberal political traditions. National intellectual property systems all across the globe connect the origins of rights to particular individuals and optimize individual owners' ability to trade in these rights.[34] The strong distinctions that western attorneys make between real and personal property rights, for example, do not resonate with indigenous cultures, where the ties between land, knowledge, and art create an organic totality. As a practical result, many of indigenous people' traditional informational resources are no longer protected. This frequently means that they can be freely taken.

Indigenous peoples and western NGO groups have responded by launching a political campaign to reform the present intellectual property framework.[35] Throughout this conflict,

[31] R. B. LILLICH, GLOBAL PROTECTION OF HUMAN RIGHTS IN THEODOR MERON (ED.), HUMAN RIGHTS IN INTERNATIONAL LAW: LEGAL AND POLICY ISSUES, 115-170, 157 (Clarendon Press, Oxford, 1984, 1992 reprint)

[32] The right of governments to regulate the ownership of property through positive law was recognized by natural rights theorists like Locke. See P. Drahos, A Philosophy of Intellectual Property (Dartmouth, Aldershot, 1996) pp. 48-53

[33] e T. Campbell & W. Sadurski, (Eds.) *Freedom of Communication* (Aldershot, 1994); F Schauer, *Free Speech: a philosophical enquiry* (Cambridge University Press, Cambridge, 1982). On copyright, internet and freedom of speech see S. Fraser, *The Conflict Between the First Amendment and Copyright Law and its Impact on the Internet*, 16 Cardozo Arts & Entertainment Law Journal, 1-52 (1998).

[34] See M. Blakeney, *Protection of traditional medical knowledge of indigenous peoples*, 6 EIPR, 446 (1997); J. Tunney, *E.U., I.P., Indigenous People and the Digital Age: Intersecting Circles*, 20 EIPR, 335-346 (1998).

[35] The Rural Advancement Foundation International (RAFI) is a western NGO that has been particularly active and successful in the cause of farmers' rights and the recognition of sustainable use of biodiversity.

intellectual property has grown related to much larger problems such as indigenous peoples' sovereignty and self-determination, cultural protection, food security, biodiversity, sustainable development, health policy, and biotechnology.[36] People's rights have become the language of emancipation for activists in these battles, whereas western intellectual property laws have become the medium of oppression. Indigenous organizations have issued various declarations calling current intellectual property regimes "colonialist," "racist," and "usurpatory," in the words of the COICA statement.[37]

One key issue to note about these assertions is that they do not completely reject the idea of intellectual property. Instead, they argue and advocate for the acknowledgment of indigenous intellectual property rights. Indigenous peoples appear to be attempting to make intellectual property serve a role other than value appropriation. They want property to work in a way that allows them to govern the use of cultural information that is in some ways a part of them, to which they are linked, cultural knowledge that they do not necessarily want to become the subject of global processes of commodification and appropriation. For them, intellectual property should first and foremost serve to protect their way of life.[38]

2. Conflict of IPR and Human Rights law - Re: PepsiCo v Gujarat Farmers

Intellectual property (and contract) difficulties created by institutional design are more than just legal or economic considerations. Property, as stated in this section, is an instrument for sounding the deeper notes of our political ideologies.[39] Property regimes should serve the ideals, needs, and interests that our moral and political systems regard as important. The current issue is that the intellectual property institution has globalized without a set of shared understandings about the function that institution is to play in the employment, health, education, and culture of individuals all over the world. Linking intellectual property to human rights discourse is a critical step in the endeavour of developing theories and policies

[36] The links between biodiversity, sustainable development and indigenous knowledge are recognized in the Convention on Biological Diversity. See Articles 8(j), 10(c) and 18(4). See also Principle 22 of the Declaration of the UN Conference on Environment and Development (1992) and Chapter 26 of Agenda 21.

[37] The COICA Statement, 1994, Statement by the Coordinating Body of Indigenous Organizations of the Amazon Basin, on intellectual property rights and biodiversity

[38] One might note in passing here that human rights activists could easily claim that intellectual property rights are indirectly implicated in human rights abuses. So, for example, the argument would run that the global protection of intellectual property rights forms part of the structure that allows multinationals to locate in those poor countries where labor standards are low or non-existent. See, for example, H. Shue, Basic Rights (Princeton University Press, Princeton, 1980).

[39] J. Waldron, "Nonsense upon stilts? - a reply" in J. Waldron (Ed.), 'Nonsense Upon Stilts': Bentham,, Burke and Marx on the Rights of Man (Methuen, London and New York) 174.

that will lead us in adjusting current intellectual property rights and creating new ones. Human rights, in its current level of development, provides us with a common vocabulary with which to begin this mission, if not a single language for the time being.[40]

The Protection of Plant Varieties and Farmers' Rights Act (PPVFRA), which established intellectual property protection in Indian agriculture, was put to the ultimate test after nearly a decade and a half of implementation when PepsiCo India filed legal action against four farmers in Gujarat for "illegally" growing a potato variety registered under the PPVFRA. In February 2011, the business petitioned for the registration of two hybrid potato cultivars, FL 1867 and FL 2027. In February 2016, these varieties were registered under the PPVFRA for a duration of 15 years. PepsiCo sold the latter type under the brand FC-5 and later claimed that Gujarat farmers were using it illegally. After the foundations of the proceedings were called into doubt, particularly by farmers' organizations, the corporation dropped their actions, but not before attempting to bind the farmers it had framed into contractual agreements.[41]

PepsiCo may have dropped the proceedings against the farmers, but this particular incident raised numerous problems that were raised while the PPVFRA was in the works. These concerns range from some of the Act's problematic aspects to how it is being executed. If these difficulties are not addressed in accordance with the spirit of the law, and probably more crucially, their potential negative repercussions on agricultural communities, farmer-breeder disputes may become more common, pushing farmers into deeper crises.

As a result, India included a chapter on Farmers' Rights in the PPVFRA, which has three legs: one, farmers are recognised as plant breeders and can register their varieties; two, farmers engaged in the conservation of genetic resources of land races and wild relatives of economic plants, as well as their improvement through selection and preservation, are recognised and rewarded; and three, farmers' traditional practises of saving seeds from one harvest are protected.

PepsiCo's lawsuit against the farmers presented a number of significant problems, which the court seems to have passed over. The first issue is that farmers are not prohibited from

[40] G.W.F. Hegel, *Philosophy of Right*, T.M. Knox, tr., 68 (1st ed. Clarendon Press, Oxford 1952, 1967).

[41] Biswajit Dhar, *Points of Law in the PepsiCo -Potato Case*, Business Line, The Hindu, https://www.thehindubusinessline.com/opinion/points-of-law-in-the-pepsico-potato-case/article27060326.ece(last visited Jun. 62022).

planting a registered variety since the Act permits them to re-use such kinds and share them with their neighbours if two requirements are satisfied.

The first is that farmers are not allowed to sell "branded" seeds, which are defined as "any seed put in a packaging or any other container and labelled in a way suggesting that such seed is of a variety protected" under the Act under PPVFRA. Before the court, the corporation stated that FC-5 was licenced to farmers "first (emphasis added) in Punjab to bring potatoes of the aforementioned type on the buyback scheme." The FC-5 variant may have been created and marketed anywhere without breaking the law.

The second issue is that FC-5 has been designated as an "Extant Variety," as well as a "Variety of Common Knowledge." In other words, the claimed potato variety was previously available in the nation before it was registered, and there was "common awareness" about it in the country. As a result, PepsiCo's variety was very certainly produced in the nation before it was registered.

Furthermore, according to the judge's judgment on April 8, 2019, in PepsiCo India Holdings Pvt. Ltd. against Bipin Patel, the business may have supplied erroneous information that FC-5 is a "new" variety rather than an "extant" variety.

Despite the criticism of some specialists, registration of existing varieties was authorized in the PPVFRA, with the explanation that farmers' varieties might be registered under this provision. The benefits to farmers are unclear, but it is apparent that firms like PepsiCo, which were given the chance to register their older cultivars, may now sue farmers for utilizing recognised plant kinds.[42]

A third problem that arises concerns PepsiCo's claimed business model. According to allegations, the firm hired a private espionage organization to gather samples from farmers' fields. This alleged monitoring was a carbon duplicate of the historic 1998 case, in which Monsanto sued a Canadian farmer, Percy Schmeiser, alleging that he was unlawfully utilizing its genetically modified canola. Monsanto allegedly hired private detectives to invade his farm and gather samples, which prompted widespread outrage. Percy became an emblem of

[42] Swati Singh, *Implications of Revocation of PepsiCo's Rights to Lay's Variety Potato*, Manupatra Articles, https://articles.manupatra.com/article-details/Implications-of-Revocation-of-PepsiCos-Rights-to-Lays-Variety-Potato(last seen Jun. 6 2022)

worldwide farmer opposition to commercial plant breeders, and as a result, Monsanto was unable to recover damages from him.

VI. Conclusion

PepsiCo withdrew the lawsuits, but not before making offers to the farmers to settle the disagreement by entering into an arrangement to acquire seeds from it and then grow and sell on its terms. This case has already become an example of how multinationals use legislation to achieve their goals. The case revealed to several flaws in the plant variety registration procedure in India, since the reason for revocation in this case was mostly a lack of sufficient paperwork. The corporation has owned the rights for the last five years and has been present in the nation for decades. Furthermore, on the grounds of public interest, this revocation may prevent plant breeders from investing and trading in India. Nonetheless, a balance must be struck between the rights of farmers and plant breeders. It remains to be seen if, if adequate documentation is provided, PepsiCo's registration will be reinstated, raising more questions about the superiority of farmers' rights or plant breeders' rights. Until then, the lawsuit will serve as a watershed moment in the defence of farmers' 'human' rights over supposed intellectual property of a multinational corporation.

We currently live in an era in which capitalist economies, led by the United States of America, have gradually evolved into information economies. Intellectual property regimes have risen to prominence in trade policy and global markets. Traditional capitalism consisted of products, industries, and labor. Factory space and manpower, even skilled labor, are in short supply these days. The new capitalism is really about controlling information and knowledge. As a result, concerns affecting the design of intellectual property rights and contracts have grown increasingly essential and critical.[43]

Ideally, the human rights and intellectual property communities should commence cooperation. Both cultures have a lot to learn from one another. Looking at intellectual property through the lens of human rights discourse will prompt us to consider how the property mechanism may be modified to incorporate interests and needs that it presently does not. Intellectual property specialists may offer regulatory detail to the aim of human rights debate. At some point, the hazy ideas that underpin human rights claims to new kinds of

[43] J. Hughes, *The Philosophy of Intellectual Property* 77 Georgetown Law Journal, 287-366 (1998); H. M. Spector, *An Outline of a Theory Justifying Intellectual and Industrial Property Rights*, 8 EIPR, 270-273 (1989); W. J. Gordon, *A Property Right in Self-Expression: Equality and Individualism in the Natural Law of Intellectual Property*, 102 Yale Law Journal, 1533 (1993).

intellectual property will have to be concretized in the world through regulatory regimes.[44] These models will have to function in a world rich in cultural variety. Furthermore, global, regional, and local cultural politics are strongly polarized. The practical questions of ownership, use, access, exploitation, and permanence of new intellectual property forms will have to be determined in this environment. Intellectual property specialists can make a difference here.

[44] Arup C., *Competition over Competition Policy for International Trade and Intellectual Property*; W. A. Rothnie, *Trade, Competition and Intellectual Property*; J. Walker, *The Interface between Intellectual Property Rights and Competition Law and Policy: An Australian Perspective*, all contained in P. Drahos (Ed.) Special Issue of Vol. 16 of Prometheus on Trade and Intellectual Property, 351- 393 (1998).

Artificial Intelligence and Copyright Law in India: The Predicament Concerning Computer Generated Works and Their Ownership

Akshat Trivedi* & Siddharth Soni**

Abstract

Artificial Intelligence has branched itself in various fields of human society. Several AI bases software has also been programmed to create literary works such as art, poetry or verse. The question arises whether such work can be protected as under the Copyright Act of India. This paper analyses the concept of 'author' and 'ownership' as under the Copyright Act, while also examining as to whether Computer generated works can be protected under the Act. Thereafter, the paper analyses as to who shall be considered the 'author' of such works. A question also pondered is whether AI created works can be considered a work of joint ownership. Subsequently, the paper draws comparative perspectives from jurisdictions which have substantial jurisprudence on the topic. Lastly, the authors intend to provide certain recommendations as to the Indian status of law on the present topic.

I. Introduction

A painting, that is the portrait of Edmond Bellamy, was sold for a massive 432,000 USD at an auction a few years ago. This would not have raised eyebrows in the art circles, had there not been an unusual caveat: the painting was made by artificial intelligence.[1]

Artificial intelligence (AI) in basic language, refers to a combination of software interfaces, programmed in a manner which can be used for the ability of the computers to take decision by itself without human interference with the use of algorithms and commands. The computer systems interpret, analyse and synthesize data to complete tasks which usually require human intelligence, such as speech, visual representation, decision making etc. Amongst its myriad application throughout almost all fields of human society,[2] AI is now substantially advance in its discourse as it capable of generating artistic works which are severely complex.[3] AI can now be programmed to generate artistic works, of the quality that is equal to human diligence

*Akshat Trivedi, 5th Year, BBA LL. B (Hons.), Symbiosis Law School, Akshat.j.trivedi@gmail.com
**Siddharth Soni, 5th Year, BBA LL. B (Hons.), Symbiosis Law School, 18010126262@symlaw.ac.in.

[1] *How an Art Collective Is Using Artificial Intelligence to Make Paintings*, TIME (Feb. 23 2021) https://time.com/5357221/obvious-artificial-intelligence-art/

[2] Craig S. Smith, *A.I. Here, There, Everywhere*, THE NEW YORK TIMES, (Jul. 2 2022) https://www.nytimes.com/2021/02/23/technology/ai-innovation-privacy-seniors-education.html

[3] Bridy A (2012) Coding creativity: copyright and the artificially intelligent author. Stan Tech L Rev 5:1–28

and creativity, like poems and stories as well! [4] See for instance, the outputs of the AI in vogue, ChatGPT, which has captured the attention of persons around the globe.[5] Moreover, such artistic works have commercial utility as well, like has been observed in the recent surge in the market for AI generated Non-Fungible tokens (NFTs)[6] and the use of Flow machines. Therefore, it becomes imperative to understand and attribute their ownership, to fruitfully accrue benefits of their demand.

Intellectual property law peers into this development with a glimmer of hope yet caution. Propositions that AI generating literary works do warrant protection of the law, have found postulation by various scholars. Yet, it is trite that the machine by itself cannot 1) protect its creation 2) sue or be sued for infringement or 3) cannot licensing or assign the works by its own volition. Under patent law, the patent office of South Africa has designated Dr. Stephen Thaler's 'Device for Autonomous Bootstrapping of Unified Sentience' (DABUS) as an inventor for an improvised beverage container and a neural flame for search and rescue operations. On the same lines, in India, the Parliamentary Standing Committee Report has recommended tweaks in the Patents Act, 1970 to accommodate ownership of patents for AI applicants. Thus, the polemical inquiry must arise as to whether a similar interpretation be drawn for law of copyright?

This paper intends to address a pertinent, unanswered yet warranted question of ownership of computer or AI generated works, where dependence on human beings for inputs, is nil or negligible. The first section deals with whether works created by AI are open to copyright protection in India, in the first place. Answering in affirmative, the paper proceeds to examine the scope of protection of AI generated works under the Indian Copyright Act. Thereafter, the next section intends to analyse the international conventions, namely Berne, the Copyright Treaty and TRIPS, pertaining to copyright vis-à-vis protection to CGW. Lastly, the paper provides a comparative analysis from examples of jurisdictions where courts have addressed this issue, drawing parallels to the Indian jurisprudence.

Before any substantive inquiry is made, it is pertinent to note that AI generated works must be differentiated from Computer assisted works (CAWs). This is for the reason that in CAWs

[4] *We used Google's new AI to generate angsty poetry about the future,* FUTURISM, (Jul. 2 2022) https://futurism.com/the-byte/googles-ai-generate-angsty-poetry

[5] *ChatGPT: Poems and Secrets | Library Innovation Lab*, LIBRARY INNOVATION LAB, (Jan. 18 2023) https://lil.law.harvard.edu/blog/2022/12/20/chatgpt-poems-and-secrets/

[6] *AI-Generated Art Expected to Be the Next Big NFT Trend: Here's Why*,, NDTV GADGETS 360 (Feb 21 2022) https://gadgets360.com/cryptocurrency/news/ai-artificial-intelligence-art-growth-nft-generative-adversarial-networks-eponym-metaverse-2712936

the authorship is alluded to humans, computers are merely used as instruments for creating works, unlike AI systems, [7] which generate without human interference or input. Therefore, as provided also under Section 2(d)(vi) of the Copyright Act, CAWs do not lead to an issue of copyright ownership, as it is attributed to the person who causes work to be created.

II. The Indian Copyright Act and AI

Can AI Generated Works Be Considered As Literary Work Under The Act?

Original literary has been granted protection of copyright under Section 13(1)(a) of the Copyright Act. Although an inclusive definition has been provided in Section 2(o), broadly literary work has been defined as the product of the human mind in the form of verbal or numerical statements, capable of being expressed in writing, and such statement being arrived at after exercise of substantial skill, application of mind, labour or judgement. It includes computer programmes, databases and tables & compilations. Therefore, literary work may not necessarily be of aesthetic merit but should be anything in writing. Originality is not the most important factor, but one must focus on expression of thought in literary works.

If expression is thought is original and has been derived from the author, the work can be granted protection. The case of Sulamangalam R. Jayalakshmi v. Meta Musicals, Chennai [(2000) PTC 681] is relevant here. The Court has examined the concept of literary work and has held that anything in writing, with substantial originality and expression of thought can be covered within the scope of "literary work". Such a conclusion has also been reached in the case of London Press Ltd. v. University Tutorial Press [(1916) 2 Ch. 601], wherein the Court was considering whether copyright protection can be granted to the examination papers in University. If placed in the law as it stands, various AI generated works fall under the scope of Section 13 of the Act such as for art, see NFTs, [8] and Google's Art Generator. [9]

AI As Author

In the Copyright Act, Section 2(d) defines the term 'author' for the purposes of copyright protection. Further, Section 17 provides that in relation to a literary or dramatic work, the author of the work, and in terms of music, the composer, becomes the first owner of the

[7] Avishek Chakraborty, *Authorship of AI Generated Works Under the Copyright Act, 1957: An Analytical Study*, 8.2 NULJ 37 (2019).
[8] See websites for instance, Starryai at https://www.starryai.com/create-nft-art-with-artificial-intelligence.
[9] Kartik Chawla, *Dreaming Deep – Artificial Intelligence and the Future of Copyright, Part I,* SPICYIP (Feb 23 2022)https://spicyip.com/2016/06/dreaming-deep-artificial-intelligence-and-the-future-of-copyright-part-i.html See https://deepdreamgenerator.com/.

copyright. Further, in Amarnath Sehgal v. Union of India, the Court, while recognizing the moral rights of an "author" under the Act, had opined that "a creative individual is uniquely invested with the power and mystique of original genius, creating a privileged relationship between a creative author and his work". The emphasis here lies on the term "individual" who can accrue such rights available to an author.

AI As Joint Ownership

Section 2(z) of the Copyright Act defines a work of joint authorship as a work of collaboration, wherein the contribution of each author is not distinct and indifferent to the contribution of other author or authors. A noteworthy case law in this regard is Donohogue v. Allied Newspapers [(1937) All. E.R. 503], wherein it was held that the essence of joint ownership is that the work of one author must not be distinct from the work of another author. Therefore, the resource person (Donohogue) of a journalist (Felstead) was held not be joint owner in the final article, which was published in the newspaper, because the contribution of the resource person to the article is distinct. An important decision for this discourse is also the Hon'ble Delhi High Court's decision in Institute for Inner Studies v. Charlotte Anderson [(2014) 57 PTC 228 (Del.)]. In this case, the Court has laid down three important requisites for a work to be held as a Work of Joint Ownership. These three criteria are: (1) Collaboration (2) Non-Distinction of the contribution of each author and (3) Creative input.

Based on the aforementioned proposition of law, certain conclusions can be drawn as regards whether Computer generated works can constitute works of joint ownership under the Act. Firstly, AI generated works are not based on collaboration between humans and AI. Had it been the case, it would have been Computer generated works (CGWs).[10] Secondly, there is no distinction of work per se between AI and humans and thirdly, although requirement of creative input is fulfilled, the crux of joint ownership is lacking and hence, this proposition fails. AI Generated works cannot be considered works of joint ownership under the Act.

Are AI Works Made In Course Of 'Employment'

Section 17 of the Act, which attributes ownership in works, also provides two exceptions for the general rule of author as owner. The second exception therein prescribes that where an

[10] Miernicki M and Ng I (2019) Machines, attribution and integrity: artificial intelligence and moral rights. JUSLETTER IT (Feb. 21 2019) https://jusletter-it.weblaw.ch/en/issues/2019/IRIS/machines_-attributio_a400b1d060.html__ONCE&login=false.

artistic work is made in the course of the author's employment under a contract of service or apprenticeship, the employer will be the first owner of copyright (in the absence of any agreement to the contrary). The Supreme Court in Dharangadhara Chemical Works Ltd. v. State of Saurashtra, [11] has held that the existence of the master's right to oversee and control the job not only by dictating what work the servant is to do, but also the way in which the servant should accomplish his work, and this determines the relationship between a master and a servant. This ratio has been subsequently affirmed in various other judgements.

In light of this, a concurrent argument postulated is that AI generated works ought to be considered as part of a contract of service for the original author, the human. This solves two concerns: Firstly, the ownership under law of all CGWs can be attributed to the owner of the machine, as that person controls and oversees the AI in its generation of literary work. The human inputs data, enters and alters the relevant programming code of the AI and is also responsible for its maintenance and refurbishment. Apart from the creation of the final output, every other aspect is covered by the person owning, or coding it. Secondly, the person, who is now owner of the copyright in CGWs, become responsible for registration, publication of CGWs and also for suing or to be sued for infringement and assignment or licensing. The person must also be responsible of compliance to government policy regulation. Therefore, the above proposition attributes a feasible structure to the CGWs.

Discussing possible inadequacies of this proposition, one concern arises is as to the limited interference of the human mind on the final output or CGW. Taking an illustration of AI generated art here, it is admitted that under the person responsible will only provide broad inputs as to the final output that is desired, for instance, a starry night in the garden. Now it is onto the AI to decide the creative aspects of the requisite art and generate artwork. Therefore, the human mind is broad, not minutely responsible for the work created. It may hence be argued, that this falls short of the employment (contract of service) threshold as laid down in Dharangadhara judgement and various others.

[11] 1957 SCR 152.

III. Issues Arising Out of Grant of Ownership to AI

This section deals with two key issues that arise upon attribution of ownership to the AI itself.

Attributing Legal Status to Artificial Intelligence

Artificial intelligence is still not acknowledged as a separate legal entity. Although it is arguable that a company is attributed legal status, however, it is also pertinent to note that there are a number of people who form backbone of a corporation and therefore attributing legal status to a corporation would make sense. [12] Whether this should be used as an example for attributing Artificial Intelligence status of a legal person, AI will need to demonstrate a wide variety of cognitive capabilities before they may resemble human-like cognitive and perceptual capacities.

Currently, there is a paucity of human-like intellectual powers, and mere understanding in a single topic or activity, such as playing chess or composing music, will not suffice to confer AI legal personality. Other factors include lack of self-awareness in Artificial Intelligence. It would be logical to award ownership to the AI's closest natural individuals, the software developer of the Artificial Intelligence or its user. [13] Though these natural entities appear to be potential contenders for ownership, problems arise since they do not fit the copyright condition of 'author.'

In 2017, the Parliament of Europe adopted a rather provocative method by investigating the potential of conferring personality to machines in order to provide them with rights. The Parliament released a report on IPRs for advancement of AI technologies in October 2020, stating that AI-created works may not be entitled for copyright protection under existing EU legislations, as the mandate of 'originality' is inherently connected to the notion of a natural person's 'intellectual creation.' [14] However, the European Parliament acknowledged the need to grant copyright protection in AI-created works and proposed that such works be recognized copyrightable based on the creative end product rather than the creative process

[12] B. Solum, *Legal Personhood for Artificial Intelligences*, 70 N.C. L. REV. 1231 (1992).
[13] Woodrow Barfield, *Issues of Law for Software Agents within Virtual environments*, 14(6) PRESENCE: TELEOPERATORS & VIRTUAL ENV'TS, 741 (2005).
[14] *European Parliament Resolution dated 16th Feb., 2017 with Recommendations to the Commission on Civil Law Rules on Robotics* (June 24th, 2022), https://www.europarl.europa.eu/doceo/document/TA-8-2017-0051_EN.html.

involved in their creation. [15] To that purpose, the Parliament has proposed that the natural person engaged in the development of such works be granted copyright. The Parliament also stated in the 2020 report that giving AI devices legal personhood may not be the greatest option since it would inhibit human inventors.

The Question of Infringement: Who Can Sue Or Be Sued?

Even if Artificial Intelligence was considered to be an 'author' of a work created by it, the question of infringement still persists as to who will be held liable for infringement when the artificial intelligence itself copies original and protected works for creation of a new work. Section 51 of the Indian Copyright Act specifically states 'infringement' to be done only by a 'person'. The legislation is silent on infringement actions done by a computer or artificial intelligence and the subsequent remedies henceforth. Because legal personhood still cannot be attributed to Artificial Intelligence, any infringement actions committed by AI will become a major problem. In the case of AI, it will be far more challenging to assign responsibility for any infringement produced by AI. Because AI has no legal position of its own, the problem of granting AI authorship rights may become inadequate unless a sufficient route and chain of liability for AI activities can be created. Furthermore, because of the same reason of AI lacking legal personhood, an AI cannot sue third party entities infringing the works created by AI. The Indian Copyright Act, 1957 empowers the owner of copyright, as well as anybody who derives any right, title, or interest from the owner by assignment or grant in writing, to sue for copyright infringement. Since Artificial Intelligence cannot be termed as an 'owner' of the work created by it, AI cannot be entitled to pursue copyright infringement actions against third parties.

IV. Perspectives From Other Jurisdictions

Various jurisdictions have time and again, refused to grant copyright protection to works not created by humans. For instance, in the case of Feist Publications v. Rural Telephone Service Company, the United States Copyright Office mandated that an original work can only be registered, if it was created by an individual. [16] In another judgement of Bleistein v. Donaldson Lithographing Co., the U.S. court declared human ideas and expressions to be original while stating others to be artificial and fake. The court further went on to state that

[15] *European Parliament Resolution dated 20th Oct., 2020 on intellectual property rights for the development of artificial intelligence technologies* (June 24th, 2022), https://www.europarl.europa.eu/doceo/document/TA-9-2020-0277_EN.html.

[16] Feist Publications v. Rural Telephone Service Company, [1991] 499 U.S. 340 (1991).

the human participation is pivotal to make a work copyrightable. [17] In an Australian case of ACOHS Pty. Ltd. v. UCORP Pty. Ltd., the court ruled that a work generated by a computer cannot be guaranteed copyright protection since it was not created by a person. [18] Furthermore, the European Court of Justice in a similar case, held that for copyright protection, human element of ownership is fundamental for the security of the copyrightable work. [19] Likewise, in the United Kingdom, the court in the Nova Production case while refusing to acknowledge the artificial intelligence as author of the work, held that the programmer who "devised the appearance of the different aspects of the game as well as the rules and logic by which it was formed and who built the required computer program" was the creator and owner of the computer game. [20] In the popular judgement of Naruto v. Slater, also known as the 'monkey-selfie' case, the court held that an animal, when compared to a human, does not entail a right to sue in copyright infringement matters and therefore cannot be said as the author of the work. [21] In another United States Supreme Court judgement, the court defined authorship as "any concrete depiction of the results of imaginative intellect or artistic endeavor of a human". The Court reasoned that, in most situations, for a machine to create any type of artistic work, considerable input from an author or user would be required. [22]

1. EU

In the European Union, inter alia other directives that guide intellectual property law and ownership, relevant for the present discussion is the Article 2(1) of Directive 2009/24, which provide that author of a computer programme must be a natural person. This situation can include 'legal' persons, if the EU State provides individually for the same. AI would necessarily fail this test as it does not fall into the category of a natural person. In light of this, another landmark case establishing the attribution of authorship to creator was Infopaq International A/S v. Danske Dagblades Forening, where the Court of Justice of the European Union held that originality is an important factor for copyrightability. Therefore, the author ought to "reflect his personality in the sense that he expresses his creative abilities in original

[17] Bleistein v. Donaldson Lithographing Co., [1903] 188 U.S. 239.
[18] ACOHS Pty. Ltd. v. UCORP Pty. Ltd., [2012] 201 [FCR] 173.
[19] Infopaq International A/S v. Danske Dagbaldes Forening, [2009] C-5/08.
[20] Nova Productions Ltd. v. Mazooma Games Ltd., [2007] EMLR 427.
[21] Naruto v. Slater, No. 16-15469 (9th Cir. 2018).
[22] Goldstein v. California, 412 U.S. 546 (1973).

manner by making free and creative choices". AI created works will not be able to clear this threshold as they fail to constitute original creative works under the EU copyright regime. [23]

2. The UK

In the United Kingdom, Section 178 of the Copyright Designs and Patents Act, 1988, notably provides that a computer generated work is "work generated by computers without any human author of the work". In the same lines, the Court of Appeal of the United Kingdom has held that the minute frames in the cinematography of each video game frame constitute computer generated works, in Nova Productions Ltd v Mazooma Games Ltd [2006].

3. The USA

In or around 1965, the U.S. Copyright Office was the first to recognise this problem of whether a human must be granted the copyright for a computer-generated work where the computer merely acted as a device or whether the machine must be granted the copyright since it had conceived and executed all the fundamental elements to be an 'author' in a copyrightable work. [24] Comparatively, the United Kingdom Copyright Designs and Patents Act, 1988 stipulates that for a work created by a computer, literary, dramatic, musical, or aesthetic work, the author is defined as the person who makes the arrangements for the work's creation. [25] In addition to this, original works are protected under New Zealand law, even whether they are made by an Artificial Intelligence or a robot. [26] In respect to a work, the Interpretation Clause (Section 2) of the Copyright Act, 1994 describes 'computer-generated' as one created by a machine in conditions where there is no human creator of the work. Even so, parallel to English law, Section 5(2)(a), while explaining the definition of author as the person creating the work, stipulates that in the case of a computer-generated, the author would be person who makes the adjustments essential for the making of the work.[27]

In contra, US law takes a strongly opposing stance. Decades of jurisprudence on 'authorship' in situations of computer-generated works have proved that authorship is a distinctively human activity that cannot be copied by smart computers. The US Copyright Office in its compendium has announced that works lacking creative inputs from a human would not be

[23] Ihalainen, J., *Computer creativity: artificial intelligence and copyright.* Journal of Intellectual Property Law & Practice (2018)
[24] *The Library of Congress, 68th Report of the Register of Copyrights for the Fiscal Year Ending June* 30, 1965 (June 25th, 2022), https://copyright.gov/reports/annual/archive/ar-1965.pdf.
[25] Copyrights Designs and Patents Act, 1988, Section 9(3) (United Kingdom).
[26] Copyright Act, 1994, Section 2 (New Zealand).
[27] Copyright Act, 1994, Section 5(2) (New Zealand).

copyrightable. [28] When artificial intelligence performs a meaningful part in the innovative process, such as automated data analysis, accessing stored knowledge, or identifying information patterns, the AI might nonetheless fail to assist to conception of the work. [29]

4. Other Jurisdictions

In contrast to other countries, China seems to have acknowledged the existence of copyright in AI-created works when, in January 2020, a court in Shenzhen, China, granted copyright protection to writings made by an Artificial Intelligence known as Dreamwriter. [30] AI as it now exists is regarded comparatively weaker since it specialises in a restricted category of activities and is subject to some amount of human intervention. As a result, at this point, attribution of authorship of AI-created works to the programmer of the program appears to be the most feasible. This is compatible with the purpose of intellectual property rights of protecting and rewarding the rights of the human individual who created the work.

V. Conclusion and the Way Forward

Things are expected to grow much more complicated as the use of artificial intelligence by people becomes more popular, and as machines improve at generating creative works, obscuring the line between artwork created by humans and artwork created by artificial intelligence. The distinction may be rendered irrelevant by monumental improvements in computers and the enormous quantity of accessible computing capabilities; when you give a technology the ability to absorb patterns from enormous databases of information, it will get even smarter at impersonating humans. And, given sufficient processing capacity, humans may soon be unable to tell the difference between works created by humans and works created by artificial intelligence. We are not there yet, but if and when we are, we will have to decide what kind of protection, if any, we should grant to emerging works made by clever algorithms with little or no human interaction. The alternative appears to contradict the reasons for safeguarding creative works in the first place. Granting copyright to the individual who made artificial intelligence conceivable appears to be the most logical approach, with the UK model appearing to be the most practical. Such an approach will guarantee that

[28] US Copyright Office Practices, Compendium (2017), Section 312(3) (United States of America).
[29] Ryan Abbot, *'I Think, Therefore I Invent: Creative Computers and the Future of Patent Law'*, 57 BOSTON COLLEGE LAW REVIEW 1079 (2016)
[30] Aaron Wininger, Lundberg & Woessner, P.A., *Shenzhen Court Rules AI-Generated Articles are Entitled to Copyright Protection*, THE NATIONAL LAW REVIEW (June 25th, 2022), https://www.natlawreview.com/article/shenzhen-court-rules-ai-generated-articles-are-entitled-to-copyrightprotection?amp&__twitter_impression=true>.

businesses continue to invest in technology, certain that they will see a return on their investment.

Therefore, the authors intend to provide certain recommendations as to the present conundrum:

Owner of the relevant machine to directly own the relevant AI

This recommendation suggests that the owner of the machine i.e., the artificial intelligence should be the direct owner of the intellectual property so created. This provides a humane aspect to the issues that may arise of out copyright assignment, infringement etc. as described above. For instance, Google shall be held owner of the subject matter/ literary work created by its AI software generating Artwork.

Beneficiary, who causes work to be created, to be held owner

In such a scenario, the person who causes the underlying literary work to be created, for its own purposes i.e. beneficiary, may be held to be the owner of the subject matter. For instance, continuing from the above example, if 'A', an internet user, instructs Google's AI software, to prepare an artwork by itself, and thereafter, makes payment of consideration to the software. Herein, the ownership of copyright of the artwork so created must lie with person who causes the artwork to be created, i.e., 'A'.

Digital Forensics Tools for Social Media Investigations: Special Emphasis on User Privacy

Drishti Jain* & Vagisha Sagar**

Abstract

Social media is widely utilized nowadays and is growing in popularity among users as the network infrastructure is drastically advancing. The privacy of users who utilize online social networking platforms acts as a hindrance to conduct social media forensic investigation. The purpose of this study is to discuss about forensic analysis of social media data utilizing privacy-aware forensic approaches. It also suggests strategies for ensuring the security and monitoring of online content. The authors have further analyses and evaluated the various limitations afforded by existing digital forensic investigation tools. Forensic professionals, legal investigators, and scholars interested in the advancement of forensics techniques along with user privacy may find the model of this study exceedingly relevant.

Keywords: Social-media, Digital Forensics Framework, Digital Forensics Tools, Digital Forensics, Digital Investigation.

I. Research Objective

The purpose of this study is to identify and strike a balance between the various forensic tools for a deeper comprehension, as well as user privacy.

II. Research Methodology

For this paper, Empirical, as well as Doctrinal Research, has been used. We have considered a breadth of literature that primarily focuses on privacy preserving digital forensic techniques. Though the analysis here is mainly qualitative, it has normative as well as inferential aspects in it.

III. Introduction

Digital forensics can be understood as obtaining and analyzing relevant data from devices during digital forensic investigations. The forensic investigation devices help recover information that was erased by the user and correlate data from many sources, resulting in invading the privacy of a third party. Social media networks are being used to perpetrate unlawful acts such as fraud, cyberstalking, and cyberbullying in today's digital age. Terrorists utilize social media to recruit new members, disseminate propaganda, and plan strategic operations. As a result, law enforcement authorities desire to employ social media as a safety surveillance tool. This ignites a heated debate over the significance of privacy safeguards in

digital forensics and crime prevention. The authors aim to solve this problem by providing an overview of current research in social media forensics, privacy rules, and forensic tools.

IV. Literature Review

Muhammad Firdaus, *Forensic Analysis of Social Media Data: Research Challenges and Directions*: The author underlines the complexity of data analysis from social media sources not only for enterprises and organizations, but also for law enforcement authorities, and discusses the current condition of evidence procurement, acceptance, and jurisdictional frameworks in social media forensics. He says that if digital information on social media is correctly examined, it can provide useful insights in criminal investigations. As a result, social media evidence must be obtained with care and accuracy, and in a way that assures its validity.[1]

Muhammad Abulaish & Nur Al Hasan Haldar, *Advances in Digital Forensics Frameworks and Tools: A Comparative Insight and Ranking*: To address the issues given by crime complexity, the author acknowledges that forensic investigation frameworks are being refined to meet the kind and gravity of the crimes committed. The author thoroughly reviews fourteen of the most extensively used and recognized digital forensics process models, tools, and technology to assist investigators in selecting the right model for their investigative responsibilities.[2]

S. Naqvi et al., *Privacy-Preserving social media Forensic Analysis for Preventive Policing of Online Activities*: The authors voice their concerns about terrorists who use social media platforms to expand their influence, and they believe it is critical to develop automated solutions to semantically analyses given multimedia contents in order to assist law enforcement agencies in preventing their activities on the web. They concentrate on the European H2020 project RED-Alert, which promises to make data processing safer and more private while also aiding in terrorism investigations. They investigated anonymization approaches to preserve consumers' privacy.[3]

*Drishti Jain, BBA LL. B (Hons), Symbiosis Law School, drishtijain.sls@gmail.com
**Vagisha Sagar, BBA LL. B (Hons), Symbiosis Law School, sagarvagisha11@gmail.com

[1] Muhammad Firdaus, *Forensic Analysis of Social Media Data: Research Challenges and Directions*, Department of Information Security, 201956717, Pukyong National University.

[2] Muhammad Abulaish & Nur Al Hasan Haldar, *Advances in Digital Forensics Frameworks and Tools: A Comparative Insight and Ranking*, 2, 2, IJDC, 95, 96 (2018).

[3] S. Naqvi et al., *Privacy-Preserving Social Media Forensic Analysis for Preventive Policing of Online Activities*, 2019 10th IFIP International Conference on New Technologies, Mobility and Security (NTMS), 1-6 (2019).

Jean-Paul A. Yaacoub et al., *Digital Forensics vs. Anti-Forensics: Techniques, Limitations and Recommendations*[4]: In this, cyber-attacks are introduced, and how they've grown significantly in recent years are discussed. Further, it explains why old cryptographic and non-cryptographic techniques are no longer effective in protecting against cyber-attacks. Because of this, the authors suggest that cutting-edge forensic technologies are required to investigate and condense cybercrimes. To prove their claim, the scholars conduct more research into the various forensics and anti-forensics techniques available. The paper's unique feature was the invention of an anti-anti forensics instrument as a new forensic protection tool. The paper also covers the practical limitations of the instruments and issues with cyber-forensics. It is hoped that the findings of this study would help other researchers better understand the digital forensics field by providing them with an overview of the literature on the subject.

Robin Verma et al., *DF 2.0: Designing An Automated, Privacy Preserving, And Efficient Digital Forensic Framework*: The authors of the current study[5] show how the investigation's performance is still a problem despite a wide approach that protects data privacy without sacrificing the investigator's abilities. Consequently, researchers introduced a unique digital forensic framework that enhances speed in digital forensic processing while maintaining the anonymity of the perpetrator. In order to improve the investigation's transparency, the framework strengthens validation. Towards the conclusion of the research the authors construct an important framework component: the machine learning solution for recognizing the relevance of prospective evidence and for specifying a scenario specific privacy quotient of forensically relevant elements.

Ana Nieto et al., *Privacy-Aware Digital Forensics*: This study[6] emphasizes the necessity for privacy protection assurances in digital forensics, even when the investigations are conducted by responsible specialists. Information gathered from personal devices might result in horrifying intrusions into individuals' private rights. Considering how important the user and his personal data are in digital investigations, this study tries to shed some light on this critical and highly needed issue after analyzing the hardware limitations of devices, with a stronger focus on the implementation of collaborative methods within standard frames and processes.

[4] Jean-Paul A. Yaacoub et al., *Digital Forensics vs. Anti-Forensics: Techniques, Limitations and Recommendations*, 2103 ARXIV 1, 2-5 (2021).
[5] Robin Verma et al., *DF 2.0: Designing an automated, privacy preserving, and efficient digital forensic framework*, CDFSL PROCEEDINGS, 127-134 (2018).
[6] Ana Nieto et al., Privacy-Aware Digital Forensics, Ch. 8 SECURITY AND PRIVACY FOR BIG DATA, CLOUD COMPUTING AND APPLICATIONS 1-28 (2019).

V. Historical Background

With the rising expansion in network capacity, connection, and speed, social media is gaining popularity throughout all age groups.[7] Cyber attackers increasingly consider digital technology and tools to be the most accessible and convenient means of committing cybercrime. To combat cybercrime and speed up the investigative process, researchers have offered numerous methods and strategies for recovering digital information from computer storage, browsing data, cache records, cookies, and registries in an automated manner. Assumptions about a specific incident can be established by reading the data collected on social media using digital forensics tools and procedures.[8]

Digital forensics is the methodical investigation of a crime using the multimedia elements present in linked electronic devices. It employs a large number of legitimate and methodical approaches to collect and authenticate digital evidence gathered from crime-related electronic devices. The basic goal of digital forensics is to find crime-related evidence in order to recreate an incident. In recent years, digital forensics has gained prominence in cases where electronic devices are utilized to commit an offence. The discipline has now expanded to include many additional digital devices such as social media, cameras, webcams, mobile phones, and so forth by keeping the privacy of the users in check as well.

The legal standing of digital forensic investigation is constantly undermined by swift technical advances, a growth in the usage of digital devices, and the enormous quantity of data that these devices may store.[9] Given the magnitude and extent of social media, it is extremely difficult to secure and police it ethically.[10] Digital forensic investigators must scrutinize the methods and algorithms utilized for data analysis and generation in light of privacy and data protection limitations.[11] Evidence provided by computer forensics is now capable of being challenged on the grounds of reliability, the applicability and acceptance of digital forensic tools and techniques should take into account peer review, the presence of error rates, the standards for digital forensics investigations, and differences of opinion among experts[12]. However, the courts do not require digital evidence to have more rigid

[7] *Supra* note 1.
[8] Ashleigh Powell & Cydnee Haynes, *Social Media Data in Digital Forensics Investigations*, 61 SPRINGER 281-303 (2019).
[9] Register.com Inc. v. Verio Inc., 356 F 3d 393, 407 n. 4 (2d Cir 2004).
[10] United States v. Kennedy, 81 F Supp 2d 1103 (D Kan 2000).
[11] Daubert v. Merrell Dow Pharmaceuticals, Inc., 123 L Ed 2d 493.
[12] Kumho Tire Co. v. Carmichael, 119 S. Ct 37.

standards than other forms of evidence[13]. Furthermore, courts have not accepted the claim that digital forensic evidence is intrinsically flawed because it is susceptible to modifications[14]. But it is critical, to ensure that the digital forensic evidence produced was under the jurisdiction of a reputable law enforcement agency with skilled and trained professionals to establish its validity[15].

VI. Role of Social Media Evidence in Legal Proceedings

Information/evidence stored on social media platforms can provide detailed and unlimited material about a victim's or potential suspect's profile. Contacts, messages, geolocation data, images, and their actions, in general, are listed in chronological order when online data is analyzed[16]. Conversations between persons determine the mental state of the person. Pictures depicting the lifestyle of a person act as proof of expenditure, income level, health, and information of where and with whom a person spends time[17]. A person's behavior online, such as uploads, posts, comments or texts are essential in cases of cyberbullying or harassment. Online profiles are used to conduct background checks on potential suspects and witnesses and provide proof of fraud and identity theft. Seizing and examining digital devices is a legal requirement and even the Indian legal system accepts electronic records as evidence[18].

Hence, social media networks form a crucial source of evidence against the criminal which should be effectively utilized by the law enforcement agencies, in a legally and scientifically appropriate manner that respects user privacy.

1. Need for Authentication

Only when the authorship of the evidence is validated and there is proof that what is being offered to the court is accurate and true may social media material be accepted as evidence[19].Authentication of evidence is critical since it is simple for anyone to create a profile under a false name, and data is easily manipulated, reducing the trustworthiness of the material. It is also necessary for the investigator to get a search warrant before beginning an investigation.

[13] Perfect 10 v. Cybernet Ventures, No. CV 01-259LGB(SHX) 2002 ILRWeb (P&F) 1411; U.S. v. Tank, 200 F.3d 627.
[14] U.S. v. Bonallo, 858 F.2nd 1427, 1436 (9th Cir. 1988).
[15] State v. American Blast Fax, Inc., No. 00CV933, 2002 WL 508330 (E.D. Mo, March 13, 2002).
[16] Arshad et al., *Evidence Collection and Forensics on Social Networks: Research Challenges and Directions,* (2019).
[17] *Id.*
[18] Indian Evidence Act, 1872, § 65 A; Indian Evidence Act, 1872, § 65 B.
[19] Muhammad Firdaus, *Forensic Analysis of Social Media Data: Research Challenges and Directions,* Department of Information Security, 201956717, Pukyong National University.

2. Forensic acquisition of social media content through devices

Essentials to be fulfilled while collecting information from social media networks are as follows:

1. Collection of only relevant data or content
2. Collection of metadata along with social media content
3. Ensure that the data collected is true and accurate

3. Preserving Forensic Social Media Data

Digital forensic techniques should be in accordance with the following principles[20]; (i) evidence collected should not be altered or modified, (ii) show that evidence collected is exactly the same as the source, (iii) investigation and analysis of data is performed in an accountable manner. Thus, such data can be efficiently and effectively managed by utilizing sophisticated analytical tools.

VII. Review of Digital Forensics Tools

A digital forensic tool can provide superior analysis and visualization by reducing investigation time and effort[21]. Disk imaging, data recovery and carving, file analysis, document information extraction, memory imaging, memory analysis, network forensics, log file analysis, and mobile device forensics are just a few of the technique available.

1. EnCase

EnCase is a well-known digital forensics application that performs repeatable and defensible data collection, identification, analysis, and reporting in a forensically sound manner[22].It is also recognized by courts all across the world. It enables examiners to collect data from a wide variety of volatile and non-volatile devices, identify relevant evidence, and creates detailed reports on their observations. Examiner credentials are also defined to prevent the investigator from unlawfully falsifying data.

2. Forensic Tool Kit (FTK)

FTK, developed by Access Data, is another well-known and commonly used digital forensics investigation system[23].It performs all processing and indexing ahead of time, making filtering and searching more efficient. FTK has a number of distinct and integrated features that aid in data processing integrity, speed, imaging, indexing, and analytical depth. It also governs Big Data.

[20] Arshad et al., *Evidence Collection and Forensics on Social Networks: Research Challenges and Directions,* 28, DIGITAL INVESTIGATION, 126-138 (2019).
[21] Raghavan, S, *Digital Forensic Research: Current State of the Art,* CSI Transactions on ICT, 1, 91-114 (2013).
[22] Guidance Software: EnCase®. http://www.guidancesoftware.com/.
[23] Access Data: Forensic Toolkit. http://www.accessdata.com.

3. X- Ways

X-Ways Forensics is a data recovery and forensics program that is primarily available for the Windows platform[24]. It recovers data from hard drives, memory cards, flash discs, CDs, and DVDs in a secure manner. It has many automated file recovery algorithms as well as the ability to manually restore data. Disk imaging, RAM content analysis, data analysis, file carving, text search, and other multi-purpose features are included. The data is retrieved and opened in read-only mode. This assures that no original evidence is unintentionally tampered with[25].

VIII. Privacy-Aware Digital Forensics

To ensure that investigators do not unreasonably interfere with the privacy of individuals certain techniques were developed to preserve privacy. The authors analyse the Database, Computer, Network, and Mobile Forensics.

1. Database Forensics

Database forensics deals with the forensic study of databases and their related information/metadata. Privacy concerns under this domain are with respect to[26]:

a) Safeguarding and accessing the data
b) Securing the erasure of data
c) Protecting the data of honest users during investigations

Access Control

Regulating access acts as a security device, preventing illicit use and keeping the entire digital investigation under control. We find such mechanisms to protect privacy in DNA Databases[27]. Upon unauthorized access its contents become incomprehensible. Access can also be controlled by classifying data as private or not private[28]. The user, as well as the investigator, can do so. The user then chooses between either of the data and the investigator analyses which data is relevant for the case. Private and non-relevant data are not collected.

Secure Erasure

Because the goal of safe erasure techniques is to ensure that data can be retrieved in any way, this anti-forensic approach has also been seen as a privacy protection tool. Secure erasure is

[24] Fleischmann, S., *X-Ways Forensics/ Winhex Manual*, http://www.xways.net/winhex/manual.pdf.
[25] X-Ways Forensics, http://x-ways.net/forensics/index-m.html.
[26] Garfinkel SL, *Digital Forensics Research: The Next 10 Years*, 7, DIGITAL INVESTIGATION, Tenth Annual DFRWS Conference, 64-73 (2010), http://www.sciencedirect.com/science/article/pii/S1742287610000368.
[27] Bohannon P et al., *Cryptographic approaches to privacy in forensic DNA databases*, In: International Workshop on Public Key Cryptography, Springer, 373–390 (2000).
[28] Halboob et al., *Privacy Levels For Computer Forensics: Toward A More Efficient Privacy-Preserving Investigation*, 56, PCS, 370-375 (2015).

becoming increasingly common as a need in any company that stores digital data. Records can be encrypted with various keys. These keys can be deleted once the log records are no longer necessary[29].

2. Computer Forensics

Computer forensics acquire data from computer-based devices[30]. This allows them to examine the running processes on the attacker/victim machine through system file verification and extraction, allowing them to monitor and trace a specific attack. It quickly examines the hard disc information generated from digital sources before any changes are made.

Policy framework

Monitoring all of the factors that may impact privacy during a digital forensic investigation is incredibly challenging without the use of a framework that leads the investigator through the process.[31]. Thus, the Privacy Enhancing Technology, Generally Accepted Privacy Practices Standards, and the Fair Information Privacy Principles are recommended[32]. These frameworks are based on[33]: (i) expert mechanism, (ii) extraction of evidence and (iii) ranking.

Third-Party Breach

A third-party privacy breach[34] is described as *"the circumstance in which a third party, not responsible in the conduct leading to the investigation, is investigated".* Thus, the investigator should submit issue-focused queries to the system, which organizes documents based on their similarity, and then decide if a privacy breach has occurred based on the findings. If there is an infringement, the query is recorded, and the investigator is urged to ask a more comprehensive question. This reduces the likelihood of an investigator compromising third-party privacy and eliminates extraneous material, lowering the time required to conduct the inquiry.

3. Network Forensics

[29] Stahlberg P et al., *Threats To Privacy In The Forensic Analysis Of Database Systems*, ACM SIGMOD International Conference On Management Of Data, 91-102 (2007).
[30] Croft NJ & Olivier MS, *Sequenced Release Of Privacy-Accurate Information In A Forensic Investigation*, 7, DIGITAL INVESTIGATION, 95-101 (2010).
[31] W. J. van Staden, *Third Party Privacy and the Investigation of Cybercrime*, 9, Advances in Digital Forensics Springer, (2013).
[32] Reddy K & Venter H, *A Forensic Framework For Handling Information Privacy Incidents*, IFIP International Conference on Digital Forensics, Springer, 143–155 (2009).
[33] Gupta A, *Privacy-Preserving Efficient Digital Forensic Investigation Framework*, IC3,387–392 (2013).
[34] W. J. van Staden, *Third Party Privacy and the Investigation of Cybercrime*, 9, Advances in Digital Forensics Springer, (2013).

Network forensics is responsible for monitoring, analyzing devices and network traffic in order to obtain legal information and extract legal evidence. Privacy over a network can be ensured by (i) revocable anonymity, (ii) searchable encryption and (iii) traffic capture.

Revocable anonymity

Revocable anonymity is the practice of allowing users to operate or receive services anonymously until they misbehave, at which point they can be re-identified, usually with the assistance of a trusted third party[35].

Searchable encryption

Searchable encryption is a cryptographic technique that allows you to examine an encrypted database. It allows the investigator to look for data in the context of e-mail servers using specific keywords[36]. After, the data owner grants access to the encrypted file. However, because the data owner is in charge, he or she may conceal information from the investigator and obtain crucial case information.

Traffic Capture

Partial privacy can be guaranteed by dividing captured network traffic into files containing 5 minutes of network flows from a single IP. Each file is then encrypted with a key[37]. This enables investigators to obtain information relating to a particular period instead of the entire data[38].

4. Mobile Forensics

Mobile forensics is a relatively new branch of digital forensics that entails investigating mobile devices in order to gather and recover digital data that can be used as evidence[39]. This is accomplished by keeping the evidence's authenticity in an unaltered state**.** In such instances, displaying a message to alert the user of privacy expectations and gain their agreement is a usual method**.**[40]

IX. Challenges of the Current Digital Forensics Techniques

Considering digital forensics has so much promise, procedures have been widened. As technology has advanced, so has the difficulty of tracing digital evidence. As researchers'

[35] Antoniou G, *PPINA–A Forensic Investigation Protocol For Privacy Enhancing Technologies*, IFIP International Conference on Communications and Multimedia Security, Springer, 185-195 (2006).
[36] Law FY, *Protecting Digital Data Privacy In Computer Forensic Examination*, SADFE, IEEE Sixth International Workshop, 1–6 (2011).
[37] Shebaro B, *Privacy-Preserving Network Flow Recording*, 8, DIGITAL INVESTIGATION, 90-100 (2011).
[38] Adams CW, Legal *Issues Pertaining To The Development Of Digital Forensic Tools,* SADFE, Third International Workshop, IEEE, 123-132 (2008).
[39] Iosif I Androulidakis, *Mobile Phone Forensics*, MPSF, Springer, 75–99 (2012).
[40] Grover J, *Android Forensics: Automated Data Collection And Reporting From A Mobile Device*, 10, DIGITAL INVESTIGATION, 12–20 (2013).

concerns about the privacy of their subjects grew, they proposed a slew of privacy-preserving modelling strategies, the limitations of which are discussed below in terms of technology, procedure, training, and the law.

1. Technological Challenges

- Various types of technical hurdles mandating dealing with cryptographic and non-cryptographic data are met during a forensics investigation. This encompasses data size, data location, data leakage, anti-forensics tools, and lack of integration, which can thwart an investigation or consume a considerable number of resources As a result, cyber attackers rely on obscuring their paths by complicating their data history among other techniques in order to waste the time of forensic experts.[41]
- Engaging with the variability of various social media platforms is difficult because it is very easy to block data that cannot be traced back. There are several citations in the literary works that emphasize necessity cyber forensic tools that digitize diversified investigations.[42]
- Since social networks have no geographical integrity and cyber-attackers can function from any location at any time, the digital forensic investigator's ability to monitor and indict them is hampered.[43]

2. Procedural Challenges

- Currently, there is no uniform guidelines or standardization available, thus making it difficult for the investigators during crisis.[44]
- There is a dearth of incident management and standards in digital forensics. When it comes to investigating a cybercrime, forensics investigators are inadequately unprepared. Because of this, finding and tracing digital evidence is becoming more difficult.

3. Instructional Challenges

- Digital forensics, by its very nature, are heterogeneous because of the absence of coherence and uniformity in the data formats used by forensics tools such as datasets and databases.[45]

[41] Alvaro A Cardenas et al., *Big Data Analytics for Security,* 11(6) IEEE SECURITY & PRIVACY, 74–76 (2013).
[42] Simon Kemp, *Digital 2019: Q3 Global Digital Statshot*, DATAREPORTAL (Mar. 4 2022, 4:54 PM), https://datareportal.com/reports/digital-2019-q3-global-digital-statshot.
[43] *Supra* note 3.
[44] M Ali Aydın et al., *A Hybrid Intrusion Detection System Design for Computer Network Security,* 35(3) COMPUTERS & ELECTRICAL ENGINEERING, 517–526 (2009).
[45] Konstantia Barmpatsalou et al., *Current and Future Trends in Mobile Device Forensics: A Survey*, 51(3) ACM CSUR, 46 (2018).

- Availability of trained digital forensics manpower is a challenging issue in and of itself, especially given the forensics field's lack of qualification and skills.[46] Another difficulty is a lack of investigative skills.

4. Judicial Challenges

- There exists a lack of jurisdiction that is caused by a lack of official legal authority to make decisions. This exists due to complex and intricate human rights laws in the nations making it difficult for forensics investigators to trace and arrest cyber attackers.
- Further, as addressed before, there is a lack of standardized legal procedure including taking any criminal action post an incident.
- Investigation is challenging without invading the users' privacy making it difficult to create a reasonable balance between investigation and protecting the rights at the same time.[47]

X. Projected Privacy Levels

Websites on social media platforms are self-contained and self-regulate themselves. Each system is unique, and they're all made up of different components. In cybersecurity, digital forensics and privacy protection are two conflicting forces. If you want to keep your private information safe, you'll need to use current privacy-preserving solutions that encrypt everything. As a result, the investigation's time and budget are stretched even farther. In order to ensure that only relevant data is collected and encrypted, privacy requirements for digital forensics must be established.

The absence of a technology-based approach to privacy analysis is widely acknowledged, and a paradigm is certain to fill the hole. Based on the observed access possibilities, this research provides different layers of privacy for digital forensics. According to specified privacy levels, the system is more effective at safeguarding privacy in digital forensics.[48]

- In order to maintain one's privacy, it is essential that only pertinent information be gathered. Selective imaging has recently been proposed as a way to acquire just data relevant to the occurrence, reducing the investigation's cost.
- Existing privacy-protection methods are categorized as follows[49]:

  A. Policy-based

[46] *Supra* note 2.
[47] Luca Caviglione et al., *The Future of Digital Forensics: Challenges and the Road Ahead*, 15(6) IEEE SECURITY & PRIVACY, 12-17 (2017).
[48] Waleed Halboob et al., *Privacy Levels for Computer Forensics: Toward a More Efficient Privacy-preserving Investigation* 10 IEEE XPLORE 1-6 (2019).
[49] *Id.*

B. Cryptographic techniques.

- Data owners may be better informed about how their personal information is collected, used, and shared by using policy-based procedures. Cryptographic procedures safeguard the private data of the data owner throughout the inquiry. They encrypt all data, no matter how sensitive or unimportant it may seem, using cryptographic methods like encryption. Due to the fact that all data is regarded important and sensitive, all information is collected and encrypted.
- Forensic data can be classified using two factors:
  A. Privacy
  B. Relevancy
- All data may be considered private by default, however the difference (private vs. non-private) is established from a forensics perspective. The data owner's statement that part of his/her data is non-private is interpreted by the investigating body as implying that the data is not private. Data from forensic investigations are important since the investigation's purpose and scope limit the investigator's access to particular information.
- The Ontology-based architecture for privacy preservation in digital forensics commonly incorporates sensitive data such as login, passcode, personal account details, health data, and other information. By recognising authentication and the event, the suggested architecture protects privacy and secures sensitive data at the same time. Protected data in digital forensic investigations might be restricted from being seen by less experienced investigators, but access to authorised data could be granted to mid-level investigators while allowing highly skilled investigators to view secured data without limitation.
- Semantic Multimedia Analysis (SMA) Tool - Cyber-attack or terrorist information, as well as online content integrity, are the primary goals of this instrument. Social media multimedia data are mined for their usefulness. Aside from that, the SMA Tool is capable of obtaining multi-media data, standardizing it, and providing analysis results.
- European H2020 project RED-Alert – Terrorist material was identified as part of this project's goal of protecting the security and control of online information. They used speech recognition, face and object identification, and audio activity recognition to mine multimedia files for data. Their research on the challenges and prospects of this job, including the requirement of using digital forensic tools while abiding to GDPR, was conducted on social media using anonymization methods.

Critical Analysis

Several variables, such as the applicable privacy legislation, investigation duration, and so on, may influence whether the data owner considers all of his data to be private or non-private. In this situation, the inquiry cost in regards to time might vary since determining all of the data to be non-private necessitates encrypting all of the data. There is also no requirement to carry out the pre-analysis selection method. Another critical point is that this categorization is easily transferable. An ontology-based framework for privacy - preserving would allow better classification of digital forensic domains and would aid in the creation of techniques and standards that might provide guidance in the protection of privacy in computer forensics.[50]

XI. Recommendations

Without a model to assist the investigator through the inquiry, assessing all of the above-mentioned factors that might jeopardize privacy would take an inordinate amount of time. Due to the sheer increased volume, size, structure, and quantity of information, this study discusses and proposes the following solutions.

- Proper guidance in cyber security and digital forensics is required for investigators to be certified. Forensics and counter-forensics methods and technologies will also be more familiar to them, allowing them to conduct better investigations. As a result, things will be simpler and less time consuming.[51]
- In addition to authenticity management, social media analysis tools may be extremely valuable if they included a graphical presentation of collected data.
- Furthermore, machine learning techniques may be used to classify, organize Forensics may play a critical role in detecting, identifying, recovering, and safeguarding evidence in new or constantly merging concerns, thus it is important to keep an eye on and follow these developments. In order to do this, forensics areas need be expanded to embrace all technological and Internet of Things components. se, and analyses data. Big Data approaches may also help in containing and interpreting enormous amounts of data on social media.
- The collection and storage of social media forensic evidence must also be enhanced. Other strategies for protecting privacy and preventing evidence tampering are needed in

[50] Xuejiao Wan et al., *Ontology-based Privacy Preserving Digital Forensics Framework*, 9(4) INTERNATIONAL JOURNAL OF SECURITY AND ITS APPLICATIONS, 53-62 (2015).

[51] ERIK LAYKIN, INVESTIGATIVE COMPUTER FORENSICS: THE PRACTICAL GUIDE FOR LAWYERS, ACCOUNTANTS, INVESTIGATORS, AND BUSINESS EXECUTIVES, (John Wiley & Sons, 2013).

anti-forensics to provide higher accuracy and predictive detection with the use of various machine learning-based techniques.

- Public forensics training is necessary, as is more financing, particularly for developing forensics technologies and through forensics testing, this would assist assure their authenticity, benefits, constraints, and concerns.
- Forensics may play a critical role in detecting, identifying, recovering, and safeguarding evidence in new or constantly merging concerns, thus it is important to keep an eye on and follow these developments. In order to do this, forensics areas need be expanded to embrace all technological and Internet of Things components.

XII. Conclusion

In every digital forensics investigation, social media evidence has the potential to be a valuable asset. Because many crimes utilize social media, it is essential to follow legal and ethical guidelines when dealing with such kind of evidence. Therefore, we must come up with new and better ways to associate and show data to investigators so that they can understand and make better use of it. Meanwhile, there has also been a significant increase in activities to conceal evidence and alter/delete it beyond recovery, thereby obstructing an investigation. As a result, an innovative modern forensics analytical perspective was provided by the authors. An introduction to forensics was provided, along with the examination of cyber-forensics constraints. The employment of privacy-preserving measures to avoid evidence tampering, deletion, or modification was recommended to increase detection rate and accuracy. Most forensics tools are designed to evaluate digital data in a static fashion. Thus, a real-time inquiry process analysis is essential to successfully manage the radical technological environment.

Google AdWords Program Through The Lenses of The Indian Trademark Law

Vareesha Irfan*

Abstract

Google AdWords services have become a standard marketing and promotion strategy for businesses. While marketing is largely influenced by capital expenditure, creativity and ideas have played a significant role in making or breaking a brand. However, with the advent of the AdWords program, the balance has shifted greatly in favor of monetary investment in campaigning to such an extent whereat is not only used being to use to build one brand, but also to impede the growth of competitor's brands by riding on the coat-tails of their reputation. These services are hampering the development of individual businesses and interrupting commercial law and order by acting as a discrete facilitator of trademark infringements. Amidst the normalization of AdWords services and its promotion as a liberalizer of trade, it raises serious concerns about the unregulated grey area of the trade mark use. The paper attempts to highlight the ramifications of this marketing practice where the traders bid for keywords of their competitors to divert user traffic towards them, thereby exploiting the goodwill of a third party for selfish gains. The author has identified the role and liabilities of the entities involved in this practice resulting in trademark infringement. The paper relies on the existing case laws from different jurisdictions and decisions of the Indian courts on this aspect and attempts to suggest the most appropriate methods of dispute resolution resorted to in cases of similar disputes related to domain names. The author has also addressed the considerations put forward by the service provider Google and has accommodated the same in the suggestions made.

I. INTRODUCTION

Identity and the reputation associated with that identity are both crucial for the recognition of a person, a business, or any entity dealing in the trade of goods and services. Together, they make up for a brand that has a certain value in its respective market. Trademarks play a major role in protecting the identity and reputation of any trader and helping them grow while securing the interests of their consumers at the same time. Trademarks are one of the most valuable assets for an active entity in trade because of the protection it provides to the trademark holders from the encroachment of their rights by prohibiting and penalising their

infringement. However, for a long time now, an aspect of this encroachment had been overlooked wherein the secretive use and misuse of one's trademark were not being dealt with by the traditional trademark laws. This is in reference to the Google AdWords program, where keywords of the trademark of one party are purchased by some other party not legally entitled to use that mark to benefit from the familiarity, brand image and goodwill of the trademark owner by getting displayed in the Google search results for that particular trademark, even before the trademark holder. There has been a long discourse about such practices with respect to rules of trademark infringement, and the views are still diverse amongst different justice systems as to if such act amounts to infringement, and if it does, then who all are parties to it. The Courts have settled the question of infringement in India; however, the requirement of a systematic action plan in dispute resolution has still not been proposed. In order to reduce and avoid multiplicity of disputes in the courts, there is a requirement of instant grievance redressal in these cases that safeguards the rights of the trademark holder and prevents unnecessary litigation in this regard. The first part of the present paper describes the functioning of the AdWords program, which is essential to understanding the problem and its gravity. The second part explains the arguments made in support of and against the existence of infringement in using trademarks as keywords. This part elaborately discusses the contrasting views of multiple jurisdictions concerning the presence of each essential of an infringement in the entire transaction of purchasing a keyword and publishing the advertisement and the parties responsible for it. The third part puts forward the views of Google in favour of its AdWords program and its neutral role as a mere service provider and not a party to any infringement. The fourth part draws a comparative analysis of the redressal mechanism set-up for domain name disputes and advocates for a similar uniform dispute resolution model for AdWords disputes. The concluding part vouches for providing a grievance redressal platform and guidelines for monitoring keyword applications in reference to the international database for trademarks.

II. Google AdWords Program

The most popular synonym for the words 'search' or 'find' in any 21st-century dictionary is the word 'GOOGLE', a brand name that has turned into a verb. Google has successfully built its brand name by answering all possible questions arising in the mind of people from 4 o'clock in the morning to 3 o'clock at night. However, in the course of building its brand and that of many others, through its AdWords service, it has impeded the progress and has questionable become a party to infringement in certain instances. Before analyzing Google's

role and the consequences of its services with respect to IP infringement, let us understand the AdWords service in more detail.

Advertisers go through a step-by-step process to post ads on Google. First, an advertiser chooses which languages and places to target with their ad.[1] An advertiser can opt to target people who have their Google language choice set to English only or users who are searching from a specific city, state, or nation. The creation of the advertisement is the next phase.[2] An advertiser names their Ad Group first.[3] The next step is for advertisers to build an ad with up to three lines or 95 characters of text.[4] To assist advertisers in developing ad text, Google publishes Editorial Guidelines and a Content Policy.[5] Following that, the advertiser must choose keywords or keyword phrases.[6]

Any word or phrase submitted by users into search engines to find information about or connected to that word or phrase is referred to as a keyword.[7] Google uses keywords to target adverts to specific consumers.[8] The selection of keywords by Google is relatively unrestricted. The most important condition is that the keywords chosen must be directly related to the content of the advertiser's website. Finally, advertisers must decide how much they are willing to spend each time a user clicks on their ad, which determines the Cost Per Click (CPC). An advertiser must also select a daily budget, which is calculated by dividing the monthly budget by the number of days in the month".[9]

So far, the procedure appears simple: when a consumer enters a keyword or keyword phrase that matches one of the advertiser's chosen keywords, the advertisement shows up as a sponsored link. However, Google's strategy requires more than just a match between an advertiser's keywords and those supplied as search terms by a user, and that is where an AdRank comes into the picture. Google uses AdRank to determine where advertising appears

*Vareesha Irfan, B.A. LL. B (Hons.), Faculty of Law, Jamia Milia Islamia University, New Delhi, vareesha999@gmail.com

[1]GOOGLE ADWORDS: GETTING STARTED, STEP-BY-STEP,available at<https://Adwords.google.com/select/steps.html>last seen on10 May 2022.

[2]ibid.

[3]GOOGLE ADWORDS FAQ: GETTING STARTED, STEP-BY-STEP, available at<https://Adwords.google.com/select/faq/start.html#2>last seen on10 May 2022.

[4]ibid.

[5]GOOGLE, INC., GOOGLE ADWORDS: EDITORIAL GUIDELINES,available at<https://Adwords.google.com/select/guidelines.html>last seen on10 May 2022.

[6]GOOGLE (n3).

[7]A Guide to Internet Terms: A Glossary,available at<http://www.getnetwise.org/glossary.php#K>last seen on 10 May 2022.

[8]ADWORDS GLOSSARY, available at<https://Adwords.google.com/support/bin/answer.py?answer=6323&topic=29>last seen on10 May 2022.

[9]GOOGLE(n3).

as a sponsored link in response to a user's search query.[10] It is determined by several parameters, including the maximum CPC (Cost Per Click), clickthrough rate, and ad text.[11] The advertiser's maximum CPC specifies the maximum amount that the advertiser agreed to pay each time a customer clicks on its ad.[12]The clickthrough rate is calculated by dividing the number of clicks received by the number of impressions received by an ad as a sponsored link on Google.[13] Advertisers with high clickthrough rates might pay less for adverts to appear near the top of sponsored links because the clickthrough rate increases for well-targeted advertisements.[14] Positioning sponsored links based on multiple parameters produces an output that puts advertisers with larger budgets on an equal footing with advertisers with more successful ad campaigns, as opposed to a general understanding that it simply displays those ads at the top that generate the most cash for Google.[15]

III. Likelihood of Trademark Infringement by Bidding for Keywords Consisting of Brand Names of Competitors

Although, at the outset, Google AdWords seems an effective marketing solution service accessible to all kinds of businesses and service providers. However, there are some issues with the use of this service which include trademark infringement through hijacking keywords of competitor and speculation of contributory infringement on the part of Google. Let us deal with the same in detail. Before proceeding with the analysis of the probability of trademark infringement through Google AdWords, it is essential to understand what amounts to such an infringement. Under the Indian trademark law, (i) use of any mark in the course of trade, (ii) by a person not legally authorized to do so, (iii) which is 'identical' or 'deceptively similar' to a registered trade mark in relation to 'identical' or 'similar' goods and services offered under the registered mark, is an infringement of that mark.[16]

1. Use in the Course of trade

In order to establish a possibility of trademark infringement within the service mechanism of AdWords program, it is necessary to settle the probing question of whether the *'use'* of the

[10]GOOGLE ADWORDS GLOSSARY: AdRank, available at<https://Adwords.google.com/support/bin/answer.py?answer=6300&topic=29>last seen on10 May 2022.
[11]ibid.
[12]GOOGLE ADWORDS GLOSSARY: Maximum CPC, available at<https://Adwords.google.com/support/bin/answer.pyanswer=6326&topic=29>last seen on 10 May 2022.
[13]GOOGLE ADWORDS GLOSSARY: Clickthrough, available at<https://Adwords.google.com/support/bin/answer.py?answer=6305&topic=29>last seen on10 May 2022.
[14]Adwords Select-Google 's Pay Per Click Service, Google Enters Pay Per Click Service, available at<http://www.pay-per-click-bid-managers.com/google-ppc.html>last seen on10 May 2022.
[15]ibid.
[16]Ss. 28 & 29, Trademarks Act, 1999.

registered trade mark in dealing with AdWords would be considered as a 'use in the course of trade.' There are diverse opinions of courts around the globe on this particular aspect. The courts of New Zealand refused to recognize the plaintiff's trade mark 'MOOLA,' used as a keyword by the defendant for Google AdWords services, being used as a trade mark that would identify the entity of origin of the goods/services.[17]The core reason cited for the refusal is that since the use of the plaintiff's mark as a 'keyword' is not seen or known to the public, there is no likelihood of confusion in such cases.[18]The similar position that using trademarks of third parties as a keyword which triggers advertisements of another party does not amount to a 'use' for the purposes of trademark infringement.[19]

On the other hand, the Courts in India have interpreted the law regarding the use of trademarks in AdWords as 'use in trade.' The use of the plaintiff's trade mark 'Assamesematrimony' by the defendant in the ad text, even though in a descriptive way, was held to be 'use in the course of trade' for being visible in the advertisement and thereby misleading the consumers looking for the plaintiff's services who ended up on the landing page of the defendant's website.[20]However, the Court should have considered the descriptive nature of usage before granting an the injunction in the present case. Google's trademark policy with respect to the AdWords services is more appropriate where it undertakes to initiate inquiries on complaints regarding the use of the trademarks as a part of the ad text and remove the advertisement if it finds that use is unauthorized or unfairly used, i.e., not descriptive.[21]Nevertheless, the bone of contention is the use of the mark in keywords which is invisible to the eyes of the users and for which Google refuses to investigate or take responsibility.[22]

The Indian Courts have also held a similar stance in the case of invisible use of the trademark where the use of 'Make My Trip' as a keyword in the AdWords program was declared infringement to the extent of not being used in a descriptive sense by competitors.[23]Similarly, the use of registered trademark 'Agarwal Packers and Movers' as a keyword has also been held an infringement, and the defendant had been injuncted to use the same.[24]Moreover, the

[17]NZ Fintech Limited T/A Moola V. Credit Corp Financial Solutions Pty. Ltd. T/A Wallet Wizard [2019] NZHC 654.
[18]Intercity Group (NZ) Limited V.Nakedbus NZ [2014] NZHC.
[19]Cosmetic Warriors Ltd. & Anr. V. Amazon.uk. Ltd &Anr. [2014] EWHC 181 (Ch).
[20]Consim Info Pvt. Ltd. V. Google India Pvt. Ltd.(2013) 54 PTC 578.
[21]Google Ads policies, available at <https://support.google.com/adspolicy/an>last seen on 29 May 2022.
[22] ibid.
[23]Makemytrip India Private Limited v Booking.Com *BV* 2022 SCC OnLine Del 1227.
[24]M/S Drs Logistics (P) Ltd & Another v Google India Pvt Ltd &Anr.

Court had directed the service provider, i.e., Google Inc. Ltd., to conduct inquiry about the complaints filed by the plaintiff of any other use, and review all such advertisements using the said mark for infringement/passing off and remove the same.[25] Although this judgment resolves every aspect of the issue and proposes a requisite solution for the dispute in question, the need of the hour is to shift the inquiry procedure regarding trademark infringement in keywords by AdWords service providers to a mode of redressal before taking the dispute to the courts and making it a default practice.

2. Use by unauthorized person

Considering the use of trademarks as a keyword in the AdWords program as infringement, then who would be responsible for it? It is a settled law that in such cases, the primary liability would ensue on the advertisers, i.e., the entity whose page is linked on the search platform including the search engine and the play store, and also, the third-party advertisers creating the advertisement and selecting the keywords.[26]However, the debatable question is whether AdWords service providers like Google can be held liable for a contributory infringement. Although Google is not using the trademark of others as an identifier to sell its services, it is using the trademark as its product, i.e., keywords, while selling it to the advertisers who want to purchase them.[27]The question that now remains is whether such use would be considered 'in the course of trade' or not. The Courts in the UK have ruled that dealing in keywords did not amount to 'use in the course of trade' for the purposes of trademark infringement but have still considered the possibility of liability of contributory infringement by Google depending on its involvement and role in the publication of the ad consisting the infringed trademark.[28] On finding that the process of keyword selection was purely mechanical and Google played no active role, the Courts let it go scot-free owing to the E-commerce Directive 2000.[29]

The US Supreme Court, in the case of a trade dress infringement, has held a manufacturer or distributor liable for secondary infringement if it knowingly continues to supply and distribute infringing products, which lead to consumer confusion.[30]The Court had applied this doctrine in cases of AdWords program and held Google liable for contributory infringement

[25] ibid.
[26]Head Digital Works Private Limited v Tictok Skill Games Pvt. Ltd.CS(COMM) 613/2021
[27] Isaiah F. Fishman, *'Wj are Competor's Advertising Links Ds/ajed When I Google Mj Product? An Anajsis of Internet Search Engine Liabizo for Trademark Infrngement*, 5 J.MARSHALL REV. INTELL. PROP. L. 447 (2006).
[28]Google France SARL V. Louis Vuitton Malletier SA [2010] C-236/08, C-237/08 and C-238/08
[29] Electronic Commerce Directive, Directive 2000/31/Ec Of The European Parliament And Of The Council, s. 4.
[30]Inwood Labs., Inc. v Ives Labs., Inc. 456 U.S. 844, 853-54 (1982)

for enabling and encouraging infringement by approving the ad text, including the trademark.[31] This standard is also applied in the India Courts, where an intention and knowledge of infringement on the part of any accessory to the act can make them liable for contributory infringement.[32]It is difficult to establish the intention in cases of descriptive marks; however, if there were to be a complaint mechanism for the use of trademarks as a keyword, which Google does not offer at the moment,[33] it could be made out whether Google could be held liable for contributory infringement, depending on the inquiry reports and action taken in each case. The directions of the Courts in the decision given in *M/S Drs Logistics (P) Ltd & Another v Google India Pvt Ltd & Anr.*,[34]echo this method as a probable solution to ensure protection for the trademark holders.

3. Likelihood of Confusion

This aspect of infringement can be understood in respect of AdWords programs by a cause-and-effect relationship of initial interest confusion and diversion of traffic. In order to understand this cause-and-effect relation, let's look at an analogical expression. Suppose you want to visit the Jimmy Choo's boutique, but every time you ask your Cab Driver to drop you at Jimmy Choo's, he drives you to Saks instead, which has arranged one of its entrances to look like that of Jimmy Choo's. The driver drops you there and gets tipped by the owner of Saks for 'diverting traffic' towards them.[35]Likewise, if one searches for 'X' on Google, the top two results is that of Y and While 'X' is the third result, even though the first two results have 'ad' written in the top-left corner of the Ad text, the user looking for 'X' has already become interested in the first two results under the impression that they might find what they were looking for in these result and don't want to scroll down anymore.

Thus, through this initial interest confusion, the traffic meant to reach the webpage of the trademark holder gets diverted to the webpages of entities that purchase the keywords of those trademark holders to trigger their ads. It enables the third parties to exploit the goodwill and reputation of the trademark holder for their commercial gains thereby endangering and infringing on the exclusive right of the trademark holder.[36] This defeats the two primary objectives of trademark law, i.e., preventing confusion amongst consumers and protecting the

[31]GEICO v Google, Inc. 330 F. Supp. 2d 700, 704.
[32] Consim (n20).
[33]Google Ads Policies (n21).
[34] Drs (n24).
[35]Regina Nelson Eng, *'A Likelihood of Infringement - The Purchase and Sale of Trademarks as Adwords'* (2008) 18 *Alb. L.J. Sci.& Tech*. 493 p. 521-522 (2006).
[36] Hung P. Chang, *Return to Confusion: Call for Abandonment of the Initial Interest Confusion Doctrine, 12 Intell. Prop. L. Bull.* 131, 136-38 (2008).

goodwill of trademark owners, which is associated with their goods or services.[37]It is crucial that only the trademark owner reaps the monetary benefits and gains a reputation for their goods and services, not their competitors.[38]

An argument against considering this a likelihood of confusion is that unless there is no obvious deception involved by the actual use of the trademark in the ad text, it should not be termed as an infringement. However, as seen above, the impact caused by this exercise is equivalent to that caused by an infringement. Apart from the diversion of traffic, it also leads to 'dilution of trademark', which generalizes a trademark eliminating its distinctiveness, slowly stripping it off the entitlement of trademark rights. The impact of dilution of trademarks is recognized and acknowledged in India as a threat to distinct and well-known trademarks.[39] When the search results are flooded with deceptively similar results by the name of one particular keyword entered by the users, the confusion as to the origin of goods/services arises and chances of dilution of the trademark increase.[40]

IV. Google's Defence

1. Consumer's free choice v. Trade mark holder's rights

The advocates of trade liberalization strongly argue for the Google AdWords program and see trademark holder's contentions of refraining from allocating trademarks as keywords, as a threat to trade liberalization. The rationale is that of consumer choice and preference in that when a user searches a keyword, they might also be looking for a variety of goods/services or goods/services related to the keyword entered by the user, and restricting the adoption of trademarks as keywords takes away consumer choice.[41]For a customer, this is like entering a shop blind-folded with the shopkeeper picking out for them only the products of the brand that they say they want to purchase; however, the customer's loss is that they cannot see better brands or avail discounts or any other choices that might be available. Nevertheless, the case of trademark holders is not built on restricting consumer choice but on protecting their own interests and rights in their trade mark and goodwill. Trademark law protects the traders against misrepresentation, and while bidding on someone else's trade mark as a keyword, the

[37]Mary Lafrance, *Understanding Trademark Law*80 (Lexis Nexis, 2005).
[38]Qualitex Co. V. Jacobson Prods. Co. 514 U.S. 159, 164 (1995).
[39]Aktiebolaget Volvo & Ors. V. A.K. Bhuva&Ors. 2006 (32) PTC 682
[40]Interflora Inc. and Interflora British Unit V. Marks and Spencer plc. Flowers Direct Online [2013] EWHC 1291 (Ch).
[41]Ashley Tan, *'Google Adwords: Trademark Infringer or Trade Liberalizer'* (2010) 16 Mich Telecomm & Tech. L Rev 473, 504.

third-party is actually trying to show a false association and misrepresent themselves as the rightful trademark holder.

2. Geographical limitation

It is evident from the plethora of decisions rendered by the courts in different jurisdictions and some of those mentioned hereinabove that there is no uniformity in the laws with regard to trade mark infringement in Google AdWords. While some courts consider the use of a mark as a keyword as an infringement, the others do not, and amongst those who consider it an infringement, some do not hold Google liable for contributory infringement while others do. Google's search database displays results that are not limited by territorial borders, but the rights of a trade mark holder are territorial in nature. Thus, it is important that there must be a uniform understanding about the infringement, just as in the case of domain names.[42]

It is an advantage that trade mark law is regulated via the TRIPS[43]and globally managed by WIPO because it can ease things in the beginning if it were to be settled that Google needs to stop giving away registered trademarks as keywords else, it can be held liable for infringement. Moreover, if the Courts direct Google to alter its trade mark policy to include a complaint redressal mechanism to take down advertisements triggered by keywords which are trademarks, it can cross-reference the database of WIPO and check for the registered trademarks in that territory. It is pertinent to note that this would not eliminate litigation altogether even after filing a complaint with Google, as it cannot account for the trademarks protected under common law without any registration; however, it will most certainly reduce the number of disputes reaching the Courts at first instance.

3. Fair Use

One other noteworthy and crucial aspect of trade mark use is *'fair use',* which is an exception to trade mark infringement in cases of honest industrial practices, use for related goods/services, and conditional registrations.[44] The argument in this regard is that a refusal to sell keywords of third-party trademarks will affect the right of fair use by traders, primarily of those whose services depend on these marks, such as e-commerce marketplaces, products/services compatible with that of a third party, licensed distributors, marketers and retailers, etc. This is indeed a valid consideration which can be taken care of by the compliant mechanisms in two possible ways. The first way is that on the basis of a preliminary search of

[42]ibid 507.
[43]s. 2, TRIPS Agreement 1996
[44]s. 2, Trademarks Act, 1999.

the trade mark database, Google can refuse to give the keyword for the mark in the, which could be further appealed under the claim of fair use, with a proper justification and a proof substantiating such claim which can then be analyzed by the team and then proceeded with accordingly. The second way is that the trade mark holder can complain regarding the usage of their mark, and the team can analyse it in the similar way it does with the use of trademarks in the ad text currently[45] and decide if the use is fair or not.

V. Domain Name Disputes Vs AdWords Dispute

Domain name refers to words that help a user identify a website address, just as a trade mark helps a consumer identify the product. These domain names are available for everyone to purchase and acquire for as long as they are paid for. A record of the same is kept with the providers, who are called 'domain name registrars' accredited under Internet Corporation for Assigned Names and Numbers (ICANN), a not-for-profit institution responsible for domain name registrations. They are also accessible globally without any geographical limitations. Since the traders often use their trademarks as domain names for their websites, certain persons known as 'squatters' see this as an opportunity to purchase the domain names without having an intention to carry out any activity on that web address. This is known as 'parking', and it is often done with malicious intent by the competitors to restrict the online presence of traders or by squatters to sell the domain names to the legitimate trader later for a profit.

In such cases, a domain dispute arises wherein the person parking on the domain name of some other trader can be held liable for infringement; however, a domain name registrar is not liable for infringement when publishing the list of registered domain names as it is not considered an infringing instrument.[46]These domain name disputes can either be resolved by initiating a passing-off action in courts or through the procedure according to the Uniform Domain Name Dispute Resolution Policy (UDRP) before the service providers who are also accredited under the ICANN, which includes the WIPO Arbitration and Mediation Centre. The entire set-up of dispute mechanism followed in cases of domain name disputes can effectively be applied to the disputes arising out of AdWords program, which would decrease the litigation before courts in this regard and ensure a smooth resolution for the concerned parties. Even though the law might not be uniform regards to the consideration of infringement and liable parties in such cases, however, at least in India, it has been settled,

[45]Google Ads policies (n21).
[46] Lockheed Martin Corp. v Network Solutions, Inc.,985 F. Supp. 949 (C.D. Cal. 1997).

and the Courts have decided that 'parking' on keywords of other keywords in infringement. Although AdWords service providers like Google might not be liable for infringement as the domain name registrars, they are a party to these disputes and hence, bound by the law of the land to act in consonance with the orders of the Courts, and other guidelines that shall be issued with respect to such disputes in future.

VI. Conclusion

According to the decision of the Indian courts, using third-party trademarks as keywords to trigger one's Google Advertisements is a trademark infringement. However, the law is not yet settled on whether Google can be held responsible for a contributory infringement along with the advertiser. Even though Google might not be responsible for the infringement, it can most certainly prevent it. This can be done at multiple stages to ensure the least chances of litigation in these disputes. Firstly, when purchasing the keywords, Google can conduct a preliminary search through the WIPO Database for trademarks or the domestic database of trademark offices and registries to see if the exact keyword matches an existing registered trademark. If so, the purchaser can be informed of the match and be suggested some alternate keywords for their advertisements that are not registered trademarks or invite alternative suggestions for the advertisers themselves. Secondly, Google should amend its trademark policy and include a provision for complaints by trademark holders for the use of their marks as keywords and investigate the same just as it investigates the unauthorized use of a trademark in Ad texts. Even if, after resorting to both these methods, the trademark holder's issue is not resolved, then they could approach the Court. This would not only increase the accountability of the service providers towards the users and trademark holders but also relieve the Courts from unnecessary litigation. Although Google's operation is global and there is still dispute considering the presence of infringement in the use of trademarks as keywords, it cannot deny the order of the Courts to conduct an inquiry and ensure the rights of the trademark holders. Furthermore, in the past, Google has tweaked its policies for one territory and then implemented the same globally.[47] Thus, it can alter its trademark policy and provide search assistance and inquiry in such cases of infringement in India. However, the uniformity in law throughout all jurisdictions will facilitate the resolution of conflicts between cross-border traders in a better way. Therefore, a set of international guidelines on the subject is called for, which can either direct the existing set-up for domain name disputes

[47]Leila Abboud, Kate Holton, *'Google changes trademark ad policy in Europe'* (Reuters, 4 August 2010) https://www.reuters.com/article/us-google-adwords-idUSTRE6732G320100804>last seen on 29 June 2022.

to look after the disputes related to AdWords program or direct the service providers to devise and dedicate a complaint forum for attending to the aggrieved trademark holders.

Intellectual Property Management in Healthcare Innovation During Covid-19- Battle of Granting Patents for AI in healthcare

Aranya Nath* & Antara Paral**

Abstract

From prehistoric civilizations to the modern period of striving humans, the endless love affair of life and technology has endured the test of time. Whether it was the development of wheels, a flying machine, or artificial brains, technology has repeatedly been shown to be inescapably and progressively important for the sustenance and advancement of life. However, the health sector is one of the prominent industries that have seen significant interference. Healthcare, strongly linked to life in general, has shown increasing reliance on emerging technology, which has been labelled a Digital Revolution in the healthcare system. The researcher hopes to debate the subject and its relationship with Intellectual Property Management in this chapter, in addition to whether existing patent laws and constitutional laws would be capable of resolving recent advances in the field of artificial intelligence and other technological breakthroughs in healthcare. There is debate over whether artificial intelligence and other advances in science will be able to get patents. The preparation to incorporate the article by comparing earlier developments in technology utilized in the healthcare sector to the current approaches widely used by medical professionals globally during a pandemic. It would assist readers in comprehending the revolution from its acknowledged significant inception.

Furthermore, the authors consider the factors that caused such a development and its subsequent admission into the medical profession. As has been observed, the COVID - 19 scenario has functioned as a catalyst for digital innovation in healthcare. In summing up, the researchers constitute an essential and appropriate query for the illustrious viewers to consider regarding the previously mentioned 'Digital Revolution,' which is, subtly but significantly, taking the world of healthcare and its research to an entirely different level with time. To address this problem, we must introduce a fresh concept or set of regulations from image to completion, which could solve all challenges.

Keywords: Artificial Intelligence, Healthcare, Covid-19, Intellectual Property, Patent Laws, Constitution Laws, Digital Revolution, Pandemics, Covid’19

I. Introduction

At the turn of the decade, the current healthcare service sector is undergoing significant changes. Many depend on ongoing technological improvements and reflect a rising trend toward personalized medicine. Hereditary design, big data, and medical care-related innovation are all critical foundations of the next decades of healthcare improvements, and all rely heavily on fresh and original innovations.

Given the amount of research directly impacting the medical care field, intellectual property (IP) law becomes a prominent actor on the scene. While protection is an important aspect of biotech and clinical research, growing the motivations for development and invention, other IP zones are also important in the plans of most established healthcare companies. Now in the 5th generation of healthcare AI plays an important role, so it's debatable whether it may grant artificial intelligence patent protection. We currently do not have so artificial intelligence involved in discovering something new, but if such artificial intelligence fabricates whatever is unique in the future, should such artificial intelligence be granted a patent right? On what grounds may an artificial intelligence be refused a patent right if it has truly produced anything new in the future due to scientists' prospective breakthroughs regarding a humanistic artificial intelligence's cognitive capabilities? In recognizing the linkage between IP law and health care, it is necessary first to understand what can protect types of intellectual property and why.

Intellectual property rights are legal rights that govern creativity and invention. Essentially, intellectual property necessitates a different and more confusing set of laws for theft and ownership because these boundaries are generally much more indistinct and easier to verify than physical property.

When actual possessions are taken, the victim experiences a lack of property or riches while the cheats profits. In any event, advancements and inventive work might suffer primarily due to the invasion. If a victim of licensed innovation theft possesses rights to a song or a patent for just a creation, they do not need to lose such rights to face harm. All else being equal, the emergence of a copycat or a competitor might reduce the value of the first maker's effort and result in a loss of benefits.

In India, there are four main types of intellectual property law: trademarks, patents, copyrights, and licensing. Below, we look at how each relates to the existing healthcare system.

II. Research Methodology

The Researcher adopted Doctrinal Research method to explain the various technologies that medical practitioners have adopted during the Covid-19 pandemic to prevent further spreading. Over here, the researcher uses the doctrinal method of research where the authors collected all the information related to the first chapter from various articles, journals, e-books, and other secondary sources. Following the next, the researcher uses an exploratory research method to explain the patentability of medical advances in healthcare. Therefore, the researcher must establish the legislation's lacunae by providing suitable examples and judicial precedents.

III. Literature Review

R.C. Goyal, Handbook of Hospital Personal Management, Prentice Hall of India, New Delhi, (1994) – The methods and measures of planning, organizing, staffing, directing, and controlling a hospital and its administration were explored in depth in this study. The author emphasized the use of scientific methodologies to improve the hospital's entire services, management, and thus the patients.

The application of Section 304A of the Indian Penal Code to doctors and the importance of patient consent before operation were discovered through this research. The discussion on Medical Negligence or Deficiency in Service that took place in this book paved the way for a greater understanding of patient rights and related issues.

Syed Amin Tabish, Hospital and Health Services Administration Principles and Practice, Oxford University Press, New Delhi (2001) – This study, which is one of the first of its kind in the field of hospital and health-care management, emphasizes the importance of continuing to improve knowledge and skills in order to improve organizational effectiveness by implementing modern techniques derived from behavioural sciences and business administration. The author asserted that medical knowledge has advanced at an unparalleled rate in the last two decades of the twentieth century, resulting in astonishing improvements in human health. These advancements, along with the resulting changes in demography, have drastically altered disease epidemiology and disease burden. As a result, health-care

organizations are increasingly being pressured to focus on evidence-based medicine and cost-effective delivery. According to the author, motivating and leading people to success requires a unique combination of talents and sensibility.

Advances in medical technology, fresh perspectives on community care, and more severe cost-cutting targets mean that health-care executives' ingenuity and commitment are constantly tested. Therefore, it is true that various Technologies which medical practitioners adopt during the Covid-19 pandemic, when the whole world shattered to death, medical practitioners were the messenger of God who saved people's lives by providing the best treatment. So, in this scenario, the evolution of Smart Healthcare has been coming into the forefront.

IV. Evolution of technology used in present times

An environment generates incredibly powerful forces capable of reshaping and disrupting enterprises.[1] Necessity is the mother of creation is not only a cliché but a realization that the world has lately experienced during a pandemic emergency. When the limitations of obsolete technologies render our healthcare system ineffective. During the COVID-19 epidemic, the necessity for innovations and enhanced capabilities increased.

Since the Pandemic, here are the six most important advancements in medical care innovation in recent months and where each sector may have the biggest impact in the future.

Current Scenario

The current pandemic has thrown light upon the significance of medical care suppliers to look ahead of time and get ready for emergencies. Since the surge in COVID-19 numbers can possibly overpower emergency clinics and make medication and gear deficiencies, medical services experts have steered imaginative approaches to foresee the area and seriousness of impending expansions in COVID-19 cases. Clinics cross country have made prescient systematic apparatuses to figure how the COVID-19 may play out including various clinics and hospitals.

Children's' Hospital of Philadelphia's model uses humidity and temperature regulation, as transmission of COVID-19 fluctuates upon the temperature basis. Its model likewise utilizes

*Aranya Nath, LLM IPR & Cyber Law, Gitam University, Subhamitanath002@gmail.com
**Antara Paral, 4th Year, BBA LL. B, IFIM Law School, antaraparal2018@gmail.com
[1] How to get value from an ecosystem | McKinsey, https://www.mckinsey.com/industries/financial-services/our-insights/how-the-best-companies-create-value-from-their-ecosystems (last visited Jan 12, 2023).

GPS information to record traffic in COVID affected areas, corresponding to the methodology followed by Common Spirit's in Chicago. Zeroing in micro level, Cleveland Clinic's COVID-19 danger adding machine makes predictions depending upon the patients' race, age, sexual orientation, financial condition, vaccination records and present medical treatment & drugs[2]

V. Pharmaceutical Patents in Healthcare

In IPR, especially in financially active companies, patents are usually refereed as the "measurement of innovation" but the scene in pharmaceutical industry is a bit different as patents on new drugs are not instantly commercially viable[3] It means that a patent "may be more valuable at the end of its term than at the beginning" in case of Pharma[4]Moreover, a pharmaceutical company's Research and Development is funded with profits from its patented drugs present in the market(Cook et al., 2010) which deteriorates its ability to invest in R&D and stay innovative when the FDA denies a company's NDA in Us these are some of the barriers in Pharma industry hampering innovation and growth. There are some very different and unique challenges for pharmaceutical industry in the patent process. Patents are granted for a maximum of twenty years from the date at which the patent application was filed. In the pharmaceutical industry, a company may file a patent once only when it has discovered a new drug, prior to beginning the clinical trials. As repercussions of these inevitable bars of market entry for a particular patent, the pharmaceutical company's timeframe to commercialize its patent reduces significantly in no time. Therefore, this means that when a company's profits are decreased then its investments in R&D also decreases. Additionally, this decrease in innovation also may lead to a decrease in corporate credibility Therefore in US, the pharmaceutical companies are encouraged to patent as soon as possible, and not closer to when the NDA will be approved because patents offer a first-mover advantage. This is especially true in industries that do not rely on cross-licensing or generic components

Thus, it is imperative that pharmaceutical companies have the best tools and resources, such as block chain, to help ensure a smooth NDA process and best facilitate any FDA

[2] Josephine Johnston & Angela Wasunna, *Patents, Biomedical Research, and Treatments: Examining Concerns, Canvassing Solutions*, 37 THE HASTINGS CENTER REPORT S1 (2007).

[3] Transforming healthcare: policy discourses of IT and patient-centred care | SpringerLink, https://link.springer.com/article/10.1057/ejis.2014.40 (last visited Mar 26, 2022).

[4] Mark Lemley, *An Empirical Study of the Twenty-Year Patent Term*, (2016), https://osf.io/preprints/socarxiv/e26dc/ (last visited Jan 12, 2023).

investigations. Using block chain will best situate pharmaceutical companies to make substantial investments in R&D and innovation while maintaining a first-mover advantage.

VI. Emerging new trends in global healthcare sector

In healthcare, they can possibly convey a customized and coordinated insight to consumers, upgrade supplier efficiency, connect with formal and casual parental figures, and improve results and reasonableness. By the start of the twenty-first century admittance to medical services had come to be respected by most nations and the United Nations as a unique decent that is important either as an issue of or in accordance with fundamental basic liberties. An assessment of medical care frameworks along these lines remembers thought of the ways for which a specific framework tends to generally held qualities. Healthcare spend is rising at an alarming rate. As the terms 'leadership' and 'innovation' are at the center of this viewpoint, it is fundamental to characterize them at the start

There are several money related and quality measurements that emergency clinics and other consideration offices are required to follow and develop. As the Centers for Medicare and Medicaid Services (CMS) proceed to add and change quality projects, it tends to be hard for clinic pioneers to zero in on the most crucial and effectively improved measurements. A comparable pattern is being seen in creation of IP by organizations domiciled in India which are documenting licenses in the United States, as larger part of the innovation patent recording being done in rising advancements. According to the recent report by NASSCOM's on "Emerging Technologies: Leading the Technology IP Creation Bandwagon for India"

Health care and Medical Devices continued as the top application after programming/software applications with generally more quantity of technology patent filing and in case of start-ups healthcare and medical devices the priority focus area for filing the patent. Interestingly, it is observed that Industrial Applications, Software Applications and Health and Medical Devices have their majority application of patents in the case of emerging technologies; with Healthcare and Medical devices reigning in IOT patents.

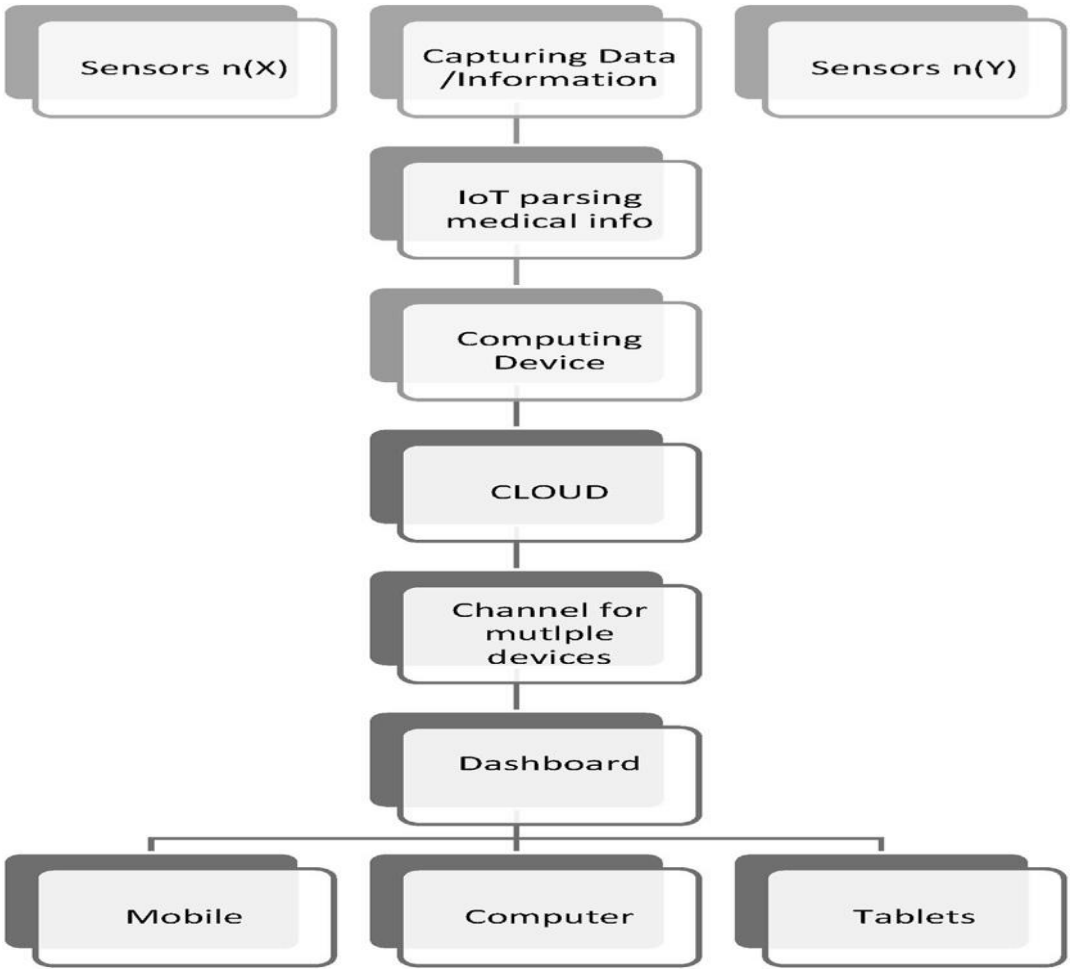
VII. Importance of Internet of things (IoT) during Covid-19 Pandemic

It is well-known to everyone that Corona Virus has three phases in the early stages around march- April when the first nationalized Ministry of Healthcare has initiated lockdown; there's an essential need for faster improvement of Covid-19 diagnosis.[5] It is contagious[6];

[5] Zhang SX, et al, *Unprecedented disruption of lives and work: health, distress, and life satisfaction of working adults in China one month into the COVID-19 outbreak*, PSYCHIATRY RES 11 2 958 (2020)

therefore, Even an asymptomatic patient can easily be diagnosed with Corona Virus. As a result, the transmission of disease increases rapidly. Internet of things (IoT) plays a considerable role by connecting medical tools to create an intelligent system per Covid patient requirements. Internet of things (IoT) has the excellent capability and high quality of sensors used to accelerate the detection process by capturing the patient's health data stored. It helps to analyse data efficiently; all the records are adequately maintained, which can be shared with doctors in case of emergency arises.

The entire Internet of things (IoT) has been carried out through a systematic process.



"Fig. 1: Shows the Process of Internet of things (IoT) in medical fields."

In the second phase, which refers to the quarantine phase, according to WHO mandate, isolation for a couple of periods is better for treating the patients suffering from Covid-19 at that time IoT devices, i.e., IoT buttons drones are there to diagnose the patients with due care.

[6] Christaki E, *New technologies in predicting, preventing and controlling emerging infectious diseases.* VIRULENCE 6(6) 558–565 (2015)

Drones Technology

Drones are referred to as simple aircraft which can easily blow away.[7] It has first come into the eyes of the people during the war between Italy and Austria.[8]It is also referred to as an unmanned aerial vehicle (UAV).[9]When the Internet of things (IoT) is connected with drones, it helps to leverage various possible tasks as it increases the plausibility. During the early phase of Covid-19, the entire world was fighting to survive the deadly Corona Virus.

At that time, this technology was a boon as it had a good track record in finding out the infected people from the crowd[10] so that they should be isolated for treatment and chances of transmission would be less. It helps to check the temperature of the people among the public and can also reach easily towards the possible location[11] where accessibility isn't easily achievable.

IoT Buttons

In general, an IoT Button is a configurable technology that can implement for repeated operations. During this Pandemic, IoT buttons can play a significant role in notifying authorities or a patient's family of any contaminated zone or emergency.[12] Devices are primarily instructed to inform the authorities in a crisis with necessary maintenance or public health and safety.

Tele-Robots

Tele-Robots are an amalgamation of telecommunication services that focus on medicine. Often it is controlled manually by a human and may give various benefits to patients such as Telemedicine, virtual surgeries, and digital medications with no human interface throughout the procedure. A nurse, for example, uses these robots to analyse patients' temperatures without approaching them. Doing treatments remotely helps to prevent infections.[13]

---

[7] Kardasz P, et al, *Drones and possibilities of their using*. J CIVIL ENVIRON ENG 6(3) 1–7 (2016)
[8]Naughton R, *Remote piloted aerial vehicles: an anthology*, CENTRE FOR TELECOMMUNICATIONS AND INFORMATION ENGINEERING, Monash University, 3 (2007)
[9] Rouse M (2019) Drone (UAV). https://bit.ly/2ZHuonE. last access on March 16, 2022
[10] Haleem A, et al, *Areas of academic research with the impact of COVID-19,* THE AMERICAN JOURNAL OF EMERGENCY MEDICINE, (2020).
[11]Chamola V, et al, *A comprehensive review of the COVID-19 pandemic and the role of IoT, drones, AI, Blockchain, and 5G in managing its impact.* IEEE 8 90225–90265 (2020).
[12]State V *Visionstate ships first IoT buttons for rapid response to cleaning alerts*, (2020) https://www.globenewswire.com/news-release/2020/03/23/2004645/0/en/Visionstate-Ships-First-IoT-Buttons-for-Rapid-Response-to-Cleaning-Alerts.html . Accessed March 16, 2022
[13]Avgousti S, Christoforou et al, *Medical telerobotic systems: current status and future trends*. BIOMED ENG ONLINE 15(1) 96 (2016)

VIII. Importance of AI in healthcare during Covid-19

Artificial Intelligence [4] has great importance in health care sectors, with the rapid advancement of effective techniques used in smart health care. Studies show that AI has great importance in smart health care as a software program has been provided by AI to elucidate data compilation which includes images, sounds, text for a proper explanation as a result it becomes a boon to get success. Nowadays with the latest innovative techniques of computer application both artificial intelligence & machine learning moving forwards pertain to the improvement in health care. The essential requisite of artificial intelligence (AI) and machine learning (ML) in healthcare is to re-frame the health care industries and making the software for getting the correct answers and also helps to get precise answers with proper analysis of the complicated data sets.

AI has various benefits in the health care sector like in technological advancement AI helps in diagnosing the patients remotely and also helps in providing the best treatment AI helps in accessing the previous & present health issues through the data provided and thus it saves the costs of the patient also. AI assures robotic surgeries without any hassle. But every technique has both pros and cons. The main cons of this technique are privacy issues, errors that have a great impact upon patients like for instance if any patient consumes any drug which is wrongly recommended by AI then it will lead to serious health issues. Machine learning also functions simultaneously with AI in identifying the disease, provides the best possible medicines for the treatment, and also keeps all the records updated which is the most essential requirement in smart health care.

IX. Positive Impact of Internet of Things (IoT) in Covid-19 Pandemic

Internet of things (IoT) provides the most substantial and most positive impact in the revolution of Healthcare during Covid-19. It quickly detects the ailments. Therefore, it has a strong manifestation in providing the best treatment through early detection, and constant monitoring is there, which helps the doctors to isolate the patients. It establishes a centralized management infrastructure at a hospital where all operations are electronically documented and may leverage other data mining techniques to tackle issues during the COVID-19 Pandemic. This equipment enables effective monitoring of patient health and keeping precise decisions during challenging circumstances. It informs about any impending illnesses and suggests a remedy for their protection by closely monitoring the overall health. It assists in

monitoring an upper respiratory infection and serves as a warning to take prescribed medicine.

X. Is there anything wrong in the Concept of Patents in AI Inventions in Healthcare

Whenever laws are established, they reflect the current societal situation and provide solutions to the challenges when the laws are adopted. Laws cannot anticipate societal changes that occur over time.[14] For such changes, laws provide an opportunity to update existing laws in response to the evolving society and its acceptance,[15] such as recognizing homosexuals in society.[16] However, in the case of granting patents to artificial intelligence, the entire notion of patents appears to be rather improper because it was developed for humans rather than humanoids. Humanoids can develop anything that can be patented, yet the idea of granting patents to humanoids does not match current patent regulations. As computers undertake intellectual functions previously carried out by individuals, they will shake the AI landscape. Artificial intelligence and machine learning are influencing every sector, from robots and unmanned cars to electronics, healthcare, and pharmaceutical technology. AI can solve complicated issues, improve decision-making, and create new products and processes. AI employs algorithms that allow it to learn and grow by processing data without human interaction.[17]

XI. IP protections for Digital Health-Tech

1. Justification of Intellectual Property- special reference to social awareness.

In India, the IPR framework is very stringent. Still, the techniques used in medical science are under the surge of innovation; therefore, it should adopt the licensing policies under Intellectual Property to safeguard the infringer techniques. Intellectual Property has been justified based on *"Article 27 of the Universal Declaration of Human Rights"*,[18] where everyone has the legitimate right to reap the benefits of the scientific art of inventions. Thus,

[14] Horváth Attila, Tradition and Modernization: Educational Consequences of Changes in Hungarian Society, 36 (2) INTERNATIONAL REVIEW OF EDUCATION 207, 217 (Oct. 19, 2019), www.jstor.org/stable/3444561.
[15] Manfredi Christopher, Why Do Formal Amendments Fail? An Institutional Design Analysis, 50 (3), WORLD POLITICS 377, 400 (Oct. 28, 2019), www.jstor.org/stable/25054046.
[16] 3 Misra Geetanjali, Decriminalizing Homosexuality in India, 17 (34) REPRODUCTIVE HEALTH MATTERS 20, 28 (Oct. 23, 2019), www.jstor.org/stable/40647442.
[17] Hall Bronwyn Hetal, Recent Research on the Economics of Patents, 4 ANNUAL REVIEW OF ECONOMICS 541, 565 (Oct. 24, 2019), www.jstor.org/stable/42949948.

[18] Nomani, M.Z.M, *Right To Health: A Socio- Legal Perspective*, UPPAL PUBLICATIONS, 56 (2004).

the scope of Intellectual Property came into the limelight from the conception of general interest to Human-specific interest. The implementation of the value of Data in Intellectual Property is directly proportional to the benefits of the idea of common goods. Thus, it can't be separated from the concept of implementation of Intellectual Property Laws.

Thomas Jefferson stated that individuals might possess rights to an insight that happens about them as provided as he maintains it to himself and thus does not communicate it with others. Nevertheless, once the concept has been disseminated and forwarded onto everyone, the openness of the concept turns instantly accessible. Thomas Jefferson highlights the insight of *"divine rights,"* It thus signifies that must foster an ideology articulated in significant activities to propagate for the public interest to integrate one personal standard of living and conscience. It helps in sustainability, and divine rights are primarily advocated in commodities such as nutrition, healthcare, and schooling.

2. Development of Healthcare Jurisprudence

"The theory of the Product of Nature is widely accepted in the United States. According to this philosophy, every type of structure artificial is patentable, while things in their original condition, i.e., the product of nature, are not. “The Purified and isolated teaching," on the other hand, is an exception to the "*Product of Nature doctrine. According to this idea, pure and separated natural substances are patentable if the act of isolation makes them more valuable than in their original condition.*" Furthermore, in the landmark decision "*Diamond v. Chakrabarty," the "US Supreme Court*" set the door for life patents by ruling that "*everything under the Sun that man produces is patentable."*

The Court ruled in this case that "*non-naturally occurring man-made life, such as genetically modified microorganisms, are patent-eligible.* “The natural formation and extent of human activity, and even the degree of surplus value by such intervention, are the factors used to determine whether or not a patentable invention has been developed." This ruling paved the way for biotechnology patents to flood the market.

Although it did not address the "*eligibility of gene patents*," this ruling served as the foundation for DNA patents. "*Given the "Isolated and Purified*" exception to the "Product of Nature doctrine" and the US Supreme Court's decision in "*Diamond v. Chakrabarty*,"[19] the US Patent and Trademark Office took a more liberal approach to gene patents.

[19]Diamond V. Chakrabarty, 447 US 303 https://supreme.justia.com/cases/federal/us/447/303/ (last visited on

Claiming that "*gene sequences were compositions of matter isolated by man and markedly different from what is found in nature*. "*In 1991, the Federal Court upheld the Patentability of compressed and reproduced DNA sequences in Amgen, Inc. v. Chugai Pharmaceutical Co." However, the legality of patenting the "BRCA112 and BRCA213 genes,*"[20] In the case "*Association for Molecular Pathology v. Myriad Genetics, Inc.,*[21]*"variants that can drastically raise the risk of breast and ovarian cancer were recently brought into doubt.*"

The United States Supreme Court unanimously declared that "*a naturally existing DNA sequence is a product of nature and is not patentable merely because it has been isolated,*" but that "DNA is patented because it is not naturally occurring." In constitutional interpretation reasons, the idea that they will have life is grossly inadequate to be considered a relevant component within itself. The Court ruled that Congress is better prepared to deliberate on the matter above since it could not balance the various values and interests represented therein. Finally, it clarifies that because patent laws include materials such as those in the conflict in this case within their scope, no legislative framework exists to exempt it.

The only suitable finding is that microorganisms produced using Recombinant DNA technology are eligible for patent protection.

3. The Protection of IP Rights in Digital Health Technologies

Digital Health was increased rapidly with the growing technology before the Covid-19 Pandemic hit. However, its inception after the Healthcare crisis started due to the outbreak of Covid-19. Internet of things (IoT), smart wearables, m-health, Telehealth all have cost and adequate IP protection, with the rapid growth of digitization.

In this context, the Internet of things (IoT) is referred to as machine learning communication, which has a lot of improvement in healthcare owing to 3d Printing. This manufacturing process uses a variety of polymers.

It prints three-dimensional figures layer upon layer.

March 16, 2022

[20] Amy Corderoy, BRCA1 GENE PATENT RULING TO BE APPEALED THE SYDNEY MORNING HERALD, http://www.smh.com.au/national/brca1-gene-patent-ruling-to-be-appealed-20130304-2fg1f.html (last visited on March 16, 2022)

[21] D'Arcy V. Myriad Genetics Inc [2015] HCA 35 HIGH COURT OF AUSTRALIA, https://wipolex.wipo.int/zh/text/579044 (last visited on March 16, 2022)

Indian market is considered the fastest growing market in every domain. In the case of 3D Printing In India, hospitals are receiving various Applications for this technology, which has helped treat complex heart disease. Earlier patients who were in urgent need of prosthetics had to chip off extra inches of bone, but with the help of 3D Printing, patients can get customized prosthetics and recover speedily. Therefore, Intellectual Property has a significant role in incentivizing the development of new technological services by enabling IPR holders to exclude third parties from using their inventions and creations for a set period.

While also boosting their value through suitable legal framework protection.

Intellectual Property indicates that Copyright, Patent, and Industrial Designs have a significant role in the Internet of things (IoT).

Copyright

The first criterion for Copyright protection is the work's originality. Copyright is a jurisdictional right. It encompasses the registration and authorship of the creative ideas expressed as India is a member of the Berne Convention. Under the "Indian Copyright Act 1957, literary works include computer data protection and databases rights." Software protection is essential as the patents act has a bar on computer inventions. Therefore, all the databases or electronic health records and the software installed in the Internet of things (IoT) are protected under Copyright Act 1957.

Patents

As Indian Patent Act 1970 is stringent in India, there's no such legislation arising in the protection of IoT Devices. As a result, it becomes difficult, but after the advent of "*Ferid Allani v Union of India*," computer-related innovations (CRI) involving software are analysed to comply with the "*Indian Patent Office's Guidelines for Examining Computer-Related Inventions.*" However, as companies increasingly rely on computational operation models, Indian courts' opinions on what qualifies for Patentability have become more dynamic. "While deciding a case of a Patentability debate encompassing a CRI, the panel relied on the scope of Section 3(k) of the Patents Act, observing that this bar on patenting is in respect of "*computer programs per se*."

While rather than "all inventions based on computer software incorporated in words per se" to ensure that inventions based on computer programs were not refused patents. While the integration of the term has exacerbated a little ambiguity about the Patentability of CRIs, it

has functioned as a vital objective by removing the complete ban on patent protection in CRIs.

Trade Secrets

Establishing an innovative layout takes a substantial commitment of both finances, however once developed, replicating such a design is affordable and straightforward via decrypting. As a result, while the layout design is going through the registration and evaluation processes, it is essential to know how to maintain the knowledge concealed from competition to boost long-term growth and innovation. It is possible because of the confidentiality offered by trade secrets. When you choose open source development software, the software may also benefit from this protection.[22]

Integrated Layout Design

A device's aesthetic and sensation are just as essential as its performance in today's environment. Although an IoT sector's achievement is focused on its functionality, market dynamics demonstrate that customers favoured one device over the other based on its look rather than its utility. Consequently, an IoT development needs to think beyond functionality and build an attractive appearance. Therefore, the safeguarding of this design is essential, as any third party can produce a counterfeit and benefit or damage the reputation and goodwill.

XII. Managing IP Licensing Agreement

SEPs Licensing: It refers to the Technologies that Patents can easily protect. It stated that essential technology is protected by Standard Essential Patent. It is a patented integration product that is recognized as a necessary feature for producing a standard generic product that can be used for smartphones. Without using it, it will not perform. It also raises competition Laws as it results in an agreement between two manufacturing companies competing.

Patent Pools: When two companies came to the decision of licensing their patents to free levying charges determined previously as a royalty income among themselves or to third parties, it refers to the pooling of Patent.

[22] Nomani, M.Z.M., Rahman F, *Intellection of Trade Secret and Innovation Laws in India*, JOURNAL OF INTELLECTUAL PROPERTY RIGHTS, 16(4) 341-350 (2011)

XIII. Encouraging Social Functions of Intellectual Property

Digital health is a pretty recent business that thrives at the confluence of health, creativity, technology, medical devices, and pharmaceuticals. Most digital health systems rely extensively on data to support diagnosis, treatment, prevention, and disease monitoring. The extensive use of creativity in the digital health system mandates comprehensive IP Rights protection. On the other hand, the public health emergency necessitates the widespread application of the social function to assure availability, accessibility, and cost.

For instance, a patent; a licensing agreement offers the integration of a social role as a counter to the patent's exclusive rights and monopolistic nature. Then it might constitute a significant risk to human health since the patentee wields tremendous control over the price, the quantity of supply, and the availability of healthcare of a product or technology. As the international framework for Intellectual Property, the TRIPs Agreement constitutes public health protection as part of the "Doha Declaration, which states that should implement the TRIPs Agreement to support WTO member states' efforts to protect public health by providing versatility and protections."

Parallel importation is also essential in protecting public health, specifically in the Covid-19 outbreak, wreaking havoc on several nations. Parallel importation enables importing patented products from a third country to be marketed at a reasonable cost. It is necessary to perpetuate societal discretionary income and satisfy medical requirements. This proposal is intriguing and realistic, specifically for underdeveloped and least-developed nations with relevant industrial factors to enhance their pharmaceuticals.

XIV. Conclusion

Based on the above discussion, it is evident that IoT will analyse the patient's condition instantaneously in the coming years. This technique will electronically record all specific info to avoid recurring complications with the COVID-19 patient's medication. The utilization of slashing technology will dramatically improve the healthcare system, and doctors will be required to embrace them. The Internet of Things (IoT) is a sophisticated advanced field with numerous applications in generating precise medical treatment, giving up an efficient method to evaluate sensitive files, information, and diagnostics. As an incubator, IP Policies are fair enough to safeguard the novel techniques from infringement.

"I Could Not Sufficiently Wonder at The Intrepidity of These Diminutive Inventions" - Patenting Prospects of Nanotechnological Inventions in India

Sarvagya Chitranshi*

Abstract

Nanotechnology has proven its worth as an essential sector of innovation in a varied number of industries. There are now recognized processes and inventions coming from its research, that have resulted in both, more efficient industry practices and better consumer products. However, since it is a relatively new area of development, there are certain issues with the registration practices linked to nanotechnological inventions. It is a classic case of law needing to be in step with scientific innovation. In this research paper, we have made an attempt to recognize those important issues with the Indian patent regime that creates roadblocks in the pathway of registration of nano-inventions. It is important to note that a generally more competitive, fair and rewarding legal system aids growth in the scientific sector. Even prior to this, we have listed out the reason for why nanotechnology deserves an explicit mention in the patent regime, owing to its large-scale and multi-industrial applications. Furthermore, we have made certain international comparisons, largely through the existing literature present in form of case laws and experts' opinions that can serve as initial markers along which the Indian patent regime can be developed. They provide for procedural help on developing certain guidelines for appropriate legal recognition of such inventions. Following this, the paper offers certain solutions that are important from the perspective of enlarging the scope of the Indian patent regime towards nanotechnological inventions. The most important suggestion in this regard, remains to be the much-needed attention both from the legislative and judicial wings to create a rather conducive environment for research and development in nanotechnology, in the Indian state.

Keywords: Nanotechnology, Nano-Patents, Inventive Step, Indian Patent Act, TRIPS.

I. Introduction

The importance of nanotechnology and its application in various industrial and day-to-day activities is being recently realized globally. The intense research that went on in the arena with the promise of delivering revolutionizing products and inventions is something that has become a reality. Sectors such as information technology, homeland security, transportation, environmental science, food safety, medicine, energy among many others have seen legitimate applications of innovations-based nanotechnology. It won't be quite wrong to say that innovation at the microscopic level has had and will continue to have large 'macro' impacts.

Nanotechnology in itself can be defined as the characterization, design, production and application of systems, structures and devices at a nanoscale. The functional aspect of these takes place in the dimensions ranging from 1 to 100 nanometers. It must be understood that there is no one field that can be characterized as nanotechnology. It is an interplay of physics, chemistry, biology and its interplay at the microscopic level to create large-scale impacts.[1] Materials or substances, when reduced to a nanoscale can exhibit very different properties and an augmented approach towards their such nature can create fantastic products. Due to its varied and widespread impact on various industries, nanotechnology can favor the economic development of a nation and aid job-creation. It is understood that sustainable economic development cannot take place without a strong technological and scientific basis on both levels of microeconomics and macroeconomics. Its various facets like green nanotechnology focuses on sustainable energy production, particularly bringing in focus the developing countries which can help support their people and the nation's economy.[2]

As a concrete understanding, there is a definite contribution of nanotechnology to an overall development of various industries, working in consonance with the nature. However, the issue lies at the primary step of further aiding innovative growth in the field of nanotechnology itself i.e., the registration of new inventions and their incentive-based

*Sarvagya Chitranshi, B.Sc. LL. B(Hons.), Gujarat National Law University, sarvagya20bsl014@gnlu.ac.in

[1] Lemley & Mark A, *Patenting Nanotechnology*, 58(2) STANFORD LAW REV, 601, 630 (2005).

[2] M. Cisneros, *Patentability Requirements for Nanotechnological Inventions: An Approach from the European Patent Convention Perspective*, 1 NOMOS VERLAGSGESELLSCHAFT MBH, (2008).

application. We shall delve into the importance of this research and evaluate its importance for the Indian state, thereby getting into the details of the issues faced by Indian patent regime at present and certain suggestions derived from an analysis of international sources that can help improve and accentuate the same.

II. Importance of Patents for Nanotechnological Inventions – Rationale of The Study

With the growing importance of nanotechnology in various facets of modern-day society, it is essential to streamline the process of its registration and further application in the Indian jurisdiction. There are a number of roadblocks for the same, as we shall see in the further sections. The existing patent regime in India is formulated along the lines of the TRIPS agreement and nearly fulfils all the requirements of the same. However, the legal framework that governs sectors of technology is supposed to keep pace with the innovation in the concerned industries, thereby rendering it obsolete in comparatively lesser amount of time. This can well be seen in the jurisprudence of nanotechnology patents in India, rather being a subset of international circumstances. It is therefore, necessary to understand the issues with the existing patent regime in India that might create issues for nanotechnology patents and make a comparative determination on where it stands with respect to nanotechnology inventions.[3] The industry impact of such inventions and the rampant research in the sectors covered under the same makes it indispensable for India to create an environment of protection and promotion, not just for intellectual benefit but also for economic contribution.

III. Industry Application and Regulation - Significance and Utility of The Study

We have understood the reasoning behind conducting this research and the impact that an improvement in the Indian patent regime with respect to nanotechnological inventions can bring about. We now understand the importance of this particular paper by going through

[3] Lo et al., *Approval in Nanotechnology Patents: Micro and Macro Factors That Affect Reactions to Category Blending*, 26(1) ORGANIZATION SCIENCE, 119, 139 (2015).

the issues that are recognized here that contribute to the stated objective.

1. Recognized issues – Research Questions

The general requirements for obtaining a patent for nanotechnological inventions in India is the same as for a general patent. These are as follows –

i. Intended Invention must be novel.

ii. It must be non-obvious, i.e., there must be an inventive step.

iii. It should have industrial application.

However, there are specific issues that are recognized as a part of the jurisprudence related to patenting requirements of nanotechnological inventions in India. These can be summarized under the following headings –

- **Sec. 3(b) of Indian Patents Act: renders nano biotech inventions non-patentable on moral grounds:** As per the provisions of Sec. 3(b)[4] of the Indian Patents Act, the following inventions are non – patentable.

  "Inventions of primary or intended use or commercial exploitation of which could be contrary to public order or morality, or which causes serious prejudice to human, animal or plant life or health or to the environment"

  This generally creates a barrier to nanobiotechnology-based patents since there is an assumption that the usage of nanoparticles results in various cases of toxicity. An example is that of the case of ***Plant Genetic Systems/Glutamine Synthetase Inhibitors***.[5] Here, genetic engineering was used to make certain plants resistant to herbicides. The process was not given the patent based on the reasoning that it altered natural characteristics of a living organism, causing injustice to others and harming the environment.

[4] Escoffier & Luca, *Reinterpreting Patent Valuation and Evaluation: The Tricky World of Nanotechnology*, 2, 1 EUROPEAN JOURNAL OF RISK REGULATION, 67, 78 (2011).

[5] SINGER & PETER A., *Harnessing Nanotechnology to Improve Global Equity*, 21, 4 ISSUES IN SCIENCE AND

TECHNOLOGY, 57, 64 (2005).

- **Sec. 3(d)[6]: renders nanotech inventions nonpatentable on the grounds of Novelty:** It is likely that the vagueness of particle size under nanotechnology can cause various inventions on a general nanoscale to be ruled out of its regime. There isn't a clear definition of nanotechnology or nanobiotechnology under the 'nano' patent regime. This would create issues for any invention of a nanoparticle that doesn't show enhanced efficacy.
- **Requirement of Utility:** It is pertinent to note that inventions under nanotechnology fall under the category of unpredictable arts. It is highly possible that there is an observable variation in the results achieved in the laboratory and in industrial application of the same products or inventive processes. It is also highly difficult to ascertain the external impact of such inventive processes. The case of ***EMI Group North America Inc v Cypress Semiconductor Corp***[7] is an example where the patent was granted even when there was no clear proof of utility of the concerned invention.
- **Multi-Patenting of Nanotechnology:** There can be myriad of uses for nanoparticles in fields of drug delivery, as medical devices or having diagnostic/therapeutic use case. There are two-fold questioning criteria here which is –
    i. Whether separate methods of application like medical purposes warrant separate patent classification?
    ii. Whether allowing of patents in fields like that of medical science would raise pertinent ethical and moral questions and does the usage of nanoparticles even constitute beneficial usage?[8]
- **Complexity of Patenting:** Fundamentally, nanotechnology is an emerging science in India and expert opinion on the same might be scarce. At present, Indian Patents Act does not have any provision that relates directly to it which goes against the Trade-Related Aspects of Intellectual Property Rights (TRIPS) agreement provision of intellectual protection of every branch of science, for the promotion and encouragement of research and innovation.

[6] Singh & Associates, *Patenting of nanotechnology invention: issues and challenges*, LEXOLOGY (May 20, 2022, 10:30 AM), https://www.lexology.com/library/detail.aspx?g=7025304d-89d2-4927-8c2e-c38a70164475.

[7] EMI Group North America Inc v. Cypress Semiconductor Corporation, 268 F.3d 1342 (Fed. Cir. 2001).

[8] Darby et al., *Grilichesian Breakthroughs: Inventions of Methods of Inventing and Firm Entry in Nanotechnology*, 79/80 ANNALES D'ÉCONOMIE ET DE STATISTIQUE, 143, 164 (2005).

Therefore, anything from an improper rejection of a nanotechnology patent due to an examiner's faulty conclusion to an overly broad granting of a patent can lead to legitimate candidates bearing the brunt of lack of expertise. India should ensure that patent landscape of its jurisdiction is conducive for future growth of nanotechnology inventions.[9]

- **Multidisciplinary nature of inventions in nanotechnology:** As stated, nanotechnology is not a generally separate branch but rather, an umbrella term that can have various wings. It is therefore more important to recognize the functioning of practical science at the nanoscale and formulate legislative guidelines for the same. The task is a difficult one due to the issues faced in grasping the intricacies of all the fields that come under nanotechnology and ensuring that they get a fair opportunity at analytical judgement of their claims.[10]

The present paper makes an attempt at analysis all these lacunae in the Indian jurisprudence with respect to nanotechnology patents and analyzing international examples to make suggestions on creating a representation for nanotechnology patents in the Indian jurisdiction.

IV.Existing Ideas - Literature Review and Analysis of Legal Cases

1. Legal Understanding of Novelty

There have been important legal cases that have laid out certain guidelines or precedents on determining the novelty, inventive nature and industry application of nanotechnological inventions. The decision in the case of ***T 0006/02 (Photodegradable Cellulose Ester Tow) Case***[11] was one of the first of many that evaluated the nature of novelty for a nanomaterial. The issue with the determination of novel properties in nanomaterials or nanoparticles is that the concerned properties are not detectable on a macro scale that define novelty at a microscale. Therefore, it is difficult to conclusively determine whether the properties are exhibited by the material at the nanoscale are also inherently present in it at the macro

[9] Patra & Debasmita, *Nanoscience and Nanotechnology: Ethical, Legal, Social and Environmental Issues*, 96, 5 CURRENT SCIENCE, 651, 657 (2009).

[10] Hullmann et al., *Publications and patents in nanotechnology*, 58 SCIENTOMETRICS, 507, 527 (2003).

[11] Photodegradable Cellulose Ester Tow Case.

scale.[12] In the present case, the addition of nano particle size to cellulose ester enhanced its photodegradability. The material here i.e., Titanium Dioxide is adjudged to be innovative in the sense that a generic disclosure like "plastics materials" as defined in the prior art does not normally negate the novelty of any specific example (cellulose esters) lying under that disclosure.

Another essential decision that struck a distinction between novelty at a micro level to that of materials already known in existing literature was made in the case of ***T 0915/00 (Nanocrystalline Metals) Case***.[13] The nano crystal here was made up of nickel, which was obtained from electrode positioning and had a crystalline size in the order of 11 nanometers. It was adjudged that it was a novel material even in comparison to a nearly identical material, already disclosed in existing literature, which comprised of macro crystalline nickel obtained by electrodeposition. Here, a difference was recognized between the similar nature of a macro and micro nature of a nearly similar material due to the difference in process of obtaining the same.

European Courts have laid out precedent of understanding prior art in the case of nanotechnological patents as in the case of ***T 0509/92 (Dipeptide Crystals) Case***.[14] The Board in this case recognized the novelty of aspartame type IIA crystal based on its X-Ray characteristics and moisture content. The concept of prior art is encompassed in Article 87(1)[15] of the European Patent Convention which states that –

"a prerequisite for claiming priority is that the application used as a basis therefor must be the "first application" for the same subject-matter. In accordance with Article 87(4) EPC, the definition of "first application" extends also to an application which is not truly the first, provided that at the date of its filing, the previous truly first application has been withdrawn, abandoned or refused without having become open to public inspection and

[12] Kalele, Suchita, *Nano shell Particles: Synthesis, Properties and Applications*, 91, 8 CURRENT SCIENCE, 1038, 1052 (2006).

[13] Nanocrystalline Metals Case.

[14] Nordberg & Ana, *Nanotechnology, Human Rights, Patent law and the Global South: A brief overview*, NEW TECHNOLOGIES AND HUMAN RIGHTS 313, 332 (2013).

[15] Amit Kumar, *Nanotechnology Development in India: An Overview*, RESEARCH AND INFORMATION SYSTEM FOR DEVELOPING COUNTRIES, (2014).

without having served as a basis for claiming a right of priority."

2. The Importance of Determining An 'Inventive Step'

The concept of inventive step becomes very essential in the context of inventions based on nanotechnology. The fundamental understanding is that the new invention must not be derivable from state of the art that already exists – the test of non-obviousness. It must focus on, in the context of nanotechnology, upon previously unattainable structure, size, organization, compositions, methods of measurement and methods of changing and using properties of nanomaterials. The concept of a skilled person here is also very important which can comprise of a team of individuals, accounting for the multidisciplinary nature of nanotechnology.[16]

It is very important to note that activities at the nano-level are generally unpredictable and therefore, are based on suggested outcomes, especially during the experimentation stage. The inventive step is concretized when there is success in achieving the suggested outcome through the said experimentative procedure. The jurisprudence based on specific aspects of this principle has been built through various cases such as the ***T 0070/99 (Fluid handling in micro fabricated analytical devices) Case***[17] where it was stated that –

"When the miniaturization of a device is accompanied by an unpredictable effect, the result of the miniaturization should always be regarded as inventive regardless of the apparent obviousness of the means used to achieve it."

The EPO Enlarged Board of Appeal in this case was convinced on the fact that prior art claimed by the appellant in the other documents did not even come close to the invention and thus, did not contain any relevant information. The principle of an unpredictable effect also being given an inventive status was laid out in the case, as stated. This laid stress on the aspect of nanotechnology becoming the conclusive issue in the case.

It has also been stated that a skilled person, as understood in the context of novel inventions had no reason to believe that the preceding teaching could be successfully

[16] Ghosh, A., Krishnan, Y, *At a long-awaited turning point*, 9, NATURE NANOTECH, 491, 494 (2014).

[17] Chatterjee, Debabrata, Sreevas Sahasranamam, *Trends in Innovation Management Research in India – an Analysis of Publications for the Period 1991–2013*, 107, 11 CURRENT SCIENCE, 1800, 1805 (2014).

extrapolated to structures smaller by at least two orders of magnitude, even if hindsight was not available. The case here was ***T 0915/00 (Nanocrystalline Metals) Case***[18] which distinguished the method of the claim from the existing continuous electroplating method. The extent of relief to a skilled person was raised to one not having the ability to obviously predict an exact mathematical range, even while performing a series of experiments that exists as prior art. This is stated in the case of ***T 0453/97 (Antireflective Coating for use in Photolithography)***.[19] Furthermore, the importance of suggested usage of the size of particles was something considered as essentially important in the case of ***T 0952/01 (Method of coating a Substrate)***.[20]

3. Industrial Application

Finally, as is the purpose of patent jurisprudence, societal benefit is the most important aspect that can conclusively ascertain the grant of one. Therefore, industrial application means that the intended invention must be one of utility and operability. There must be a real-world benefit and practical feasibility of the stated invention.

Particularly for the nanotechnological inventions, it is important that the application for the same has clear and repeatable disclosures about the invention, which focuses upon the nanotechnological aspects. This defines the object of protection and ensures that another 'skilled person' can execute the steps laid out in the application. For instance, generalization as a concept was accepted in the case ***T 0915/00 (Nanocrystalline Metals)***[21] since there were two subsequent documents that were substantiating the repeatability of the process contained in the application, not only for Nickel (the primary material for which the experiment was conducted) but also for other metals.

The importance of a clear disclosure of all experimental details for it to be considered as a valid patent application was again emphasized upon in ***T 0288/02 (Atomic and molecular***

[18] Barpujari, Indrani, *The Patent Regime and Nanotechnology: Issues and Challenges*, 15, 3, J. INTELLECT. PROP. RIGHTS, 206, 213 (2010).

[19] *Id.* at 18.

[20] Zhang, Yuanjia, Sulfab, Maisoun, Fernandez, Dennis, *Intellectual property protection strategies for nanotechnology*, 2, 6 NANOTECHNOLOGY REVIEWS, 725, 742 (2013).

[21] *Id.* at 20.

radicals of Nitrogen) Case.[22] The most interesting aspect of the case was that the Board here distinguished between embodiment of molecular radicals and atomic radicals, where the former was the one who's process had sufficient disclosure but not for the latter one. Hence, strict importance was laid on the repeatability of a particular experimentative procedure.[23] Furthermore, all the analytical tests, procedures, methods and the requisite tools to determine and monitor the parameters of an inventive process must also be accurately described, as held in ***T 1250/01 (Methods and Test Tools) Case***.[24]

V. Suggestions and Recommendations

We have gone over some of the important procedural, substantive and practical issues with nanotechnological patent issues that exist in the Indian paradigm and have analyzed how certain international cases and legislations can prove to be the guiding source for overcoming them. The suggestions in that regard shall be as follows –

1. ***Laying out clear and comprehensive definitions*** - The most important step that needs to be taken in the development of a conducive patent regime for nanotechnology is incorporating definitions on its various aspects in the legislative sphere as well. There are nano categories produced in the US (United States) and EU (European Union) patent regimes, which can serve as a preliminary source for India's nanotechnology patent categorization system.
2. ***Interpretation of patentability criteria*** - The lack in clarity in patentability criteria leads to various rejections that can't be backed up with substantial reasoning and justification. Furthermore, the non-existence of a proper procedural guideline, places an additional burden on the examiner reviewing patent applications. A possible shortage of skilled, suitably qualified, and trained examiners may lead to the issuance of low-quality patents.
3. ***Development of proper prior art databases*** – Prior art databases carry immense importance for any category of patents and more so, for the ones in nanotechnology. An

[22] The Editor, *NANOTECH PATENTABILITY ISSUES IN INDIA*, 3, 1 ROSTRUM'S LAW REVIEW (2016).

[23] Priyanka Rastogi, *India: Patenting of Nanobiotechnology Inventions: Exploring the Challenges Under the Indian Patent Law*, MONDAQ (May 22, 2022 1:42 PM), https://www.mondaq.com/india/patent/1185834/patenting-of-nanobiotechnology-inventions-exploring-the- challenges-under-the-indian-patent-law.

[24] *Id*. at 23.

inclusive nano-patent classification that can aid the search of patent lawyers can fast-track the entire process of application and acceptance of nanotechnology invention-based patents. Furthermore, it shall also serve as essential reference points for promoting further innovation in the field.

4. ***Promoting fair competition in the nanotechnology sphere*** – Incorporation of special provisions that are specifically concerned with nanotechnology patents is indispensable for making innovation in the field more competitive. There is a need for advanced legal and procedural strategies that can augment the industry and its functioning. Proper recognition of inventive methods can serve as appropriate motivation for researchers and innovators of the field.

5. ***Recognition and regulation of multiple nanotechnological fields by separate examination teams*** – Since, the field of nanotechnology covers multiple fields and their interface, as a suggestive measure, separate teams that specialize in a specific field can be designated to examine the patent applications of the concerned field. A policy decision that can separately classify nanotechnology patents can be succeeded by such a mechanism.

The most essential suggestion that can summaries the above stated points is recognition of nanotechnology and its patents exclusively in jurisprudence of the Indian state. An implicit involvement does not serve the purpose of helping a new-age industry that can anticipate rapid growth.

VI.Possible Limitations

Given the diversity of nanotechnology as an industry and its recent upsurge, there are obviously limitations to an immediate implementation of a plan that can ensure the creation of a conducive environment for innovation in the same. It is important to note them as for the purpose of overcoming them from both a legislative and application-based point of view.

1. ***Broad claims in a multidisciplinary industry*** – The issue of broad claims by the applicants always creates issues, both from the examination perspective and the industry perspective. The patentee makes an attempt at maximizing their leverage by preferring claims that can transcend as many industries as possible. This practice should be stopped or it will lead to

various overlapping claims and unnecessary fragmentation.[25]

2. ***Lack of Experts*** – As recognized, the lack of properly trained experts in the various fields of nanotechnology is a major roadblock in development of a patent regime that can help foster growth in the area. Any leniency adopted by the examination committee can lead to weak patents directly affecting the morale of the entire industry.
3. ***Procedural delay in amending the Patents Act*** – It is definitely realized that specific changes and amendments are needed in the Patents Act for facilitating a system for inventions in nanotechnology. But the legislative process is a long and tedious one that is preceded by expert committees that can make proper suggestions for concerted changes in the Act. If not prioritized, the entire process can take an unaffordable amount of time from the perspective of the 'skilled people'.
4. ***Rarity of Judicial Intervention*** – An analysis of the available literature that can serve as a direct source for the Indian state developing a patent regime for nanotechnological inventions is largely the international judicial decisions that have set out important guidelines for the experimentative process and its ratification. However, the issue is that such cases are in the rarest of circumstances considered in a *suo motu* manner and can only reach the Court when a party decides to go till that

   extent. Therefore, it reduces the possibility of the Court laying any stress on the importance of existence of concrete laws and guidelines for nano-patents.
5. ***Vagueness in International Guidelines*** – Although, we have made a reasonable argument for how the TRIPS agreement is principally in support of separate provisions for nanotechnological inventions and patents, the truth is that there is no international provision that caters to the same in the stated capacity. The existence of one would have definitely sparked greater action on behalf of not only India, but every state party to it, for the purpose of complying with it.[26]

   A concerted effort towards dealing with these limitations can certainly help in creating a rather equitable and beneficial nanotechnology patent regime in India.

[25] Karan Singh, *Issues and Challenges While Patenting Nanotechnology in India – An Overview*, SWARIT ADVISORS (May 20, 6:20 PM), https://swaritadvisors.com/blog/issues-and-challenges-while-patenting-nanotechnology-in-india/.

[26] *Id.* at 25.

VII. Conclusion

From our analysis of the issues existing in the Indian Patent jurisdiction with respect to nanotechnology inventions, international juridical comparisons and proposed solutions, it is clear that there is a roadmap which can be followed to address the problem at hand. The commonality between science and technology and any instrument of the Intellectual Property Rights regime is their purpose to promote and embrace innovation/creativity. Given the sheer drive for the same in various fields covered under nanotechnology and its industrial impact, we can anticipate some legislative action in this regard.

However, we have also gone over several issues that can create roadblocks in the suggested pathway. The most important one of them is the issue of personnel i.e., individuals who can serve as domain-level experts from the point of view of regulation and management. Any legislative improvement should be supported by existence of people who can carry it out effectively and therefore, ensuring well-functioning and academically sound committees is the requirement of legal authorities.

From the legislative standpoint, we have stressed upon building a framework from the ground up, which shall involve legally recognizing important nanotechnological definitions, laying out requirements and distinctions that can make an invention qualified to be considered under the category and clarify the procedural aspects of registering an invention in this regard along with taking care of its application. The approach should be more research and analysis based rather than just being driven by early-stage precautions, as in the case of nanobiotechnological inventions.

Legislators and Courts must recognize the potential in the industry of nanotechnology and act upon making India as one of the most favorable jurisdictions for patenting of such inventions. A concerted effort in this direction can surely lay out a better path for the future.

Need For a Repaired Safe Harbor for Ecommerce Platforms

Yaksh Bhakhand*

Abstract

The following article deals with an unexplored area of regulation i.e., Ecommerce platforms for the purpose of safe harbor protection. Following a globally recognized need for revaluating the standards of intermediary protection and the domestic pressure the Apex Court led to framing of the Intermediary guidelines 2021.These guidelines prima facie does not regulate Ecommerce platforms despite a serious need for implementation of safe harbor protection over such platforms. Section 79 of IT Act provides for conditions to claim safe harbor protection; however, the operational design of passive Ecommerce platforms can easily claim bypass the requirements laid down under clauses (a) and (b) under sub-section (2) leading to an absurd result. Keeping in mind this anomaly, an alternative framework based on EU's proposal for Digital Services Act, 2020 is furthered by the author, where such a framework would complement other provisions of the IT Act along with a balanced due diligence requirement over the Ecommerce intermediaries, which would require them to act expeditiously upon receiving "actual knowledge" of illegal content. Thus, allowing a balance between the public policy and wide userbase of such platforms on the one side and a global standard of safe harbor protection on the other.

Keywords: Safe Harbor protection**,** Passive Ecommerce platform, Actual Knowledge approach**,** Minimalist approach

I. INTRODUCTION

The birth of Safe harbor protection was an interplay between strict liability of an intermediary and the general obligation of any service provider to ensure compliance with the law and public policy, while maintaining such a balance an approach with minimal constraints and burdens was appreciated, but a change has occurred in favor of stricter guidelines stricter due diligence requirements for the intermediaries keeping in mind the newly found ease in monitoring and moderating capabilities achieved by "using a combination of machine learning, automation, and dedicated teams of human reviewers."[1]These online intermediaries

*Yaksh Bhakhand, B.A. LL. B(Hons.), National Law University, Jodhpur, yakshmeena@hotmail.com

especially the ecommerce platforms which are most prone to host copyrighted material or other such illegal material need a specially balanced mechanism to regulate the industry which is expected to reach 300mn users by 2025 is urgently required.[2]

With The Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021 ("Intermediary guidelines 2021") the protection of intermediaries, especially the Social media intermediaries ("SI")have come under spotlight, where these "due diligence guidelines" are not just tolerated, but rather appreciated at least on the issue of elaborate compliance mechanisms as the guidelines were developed in the backdrop of a need to ensure the safety and sovereignty of the cyberspace and of personal data,[3] along with the order of the SC *In re: Prajwala letter dated 18.2.2015 videos of sexual violence and recommendations,* where the Apex court directed the government *"to frame necessary guidelines to eliminate child pornography, rape and gang rape imageries, videos and sites in content hosting platforms and other applications."*[4]

Capricious scope

However, the guidelines display a capricious scope, as it proceeds with classification and sub-classification of intermediaries into SI's and Significant social media intermediaries ("SSI") without any corresponding reference to them in the concerned provision or the enabling provision under Section 87(2)(zg) of the Information Technology Act, 2000 ("IT Act") which also allows for framing guidelines "to be observed by the intermediaries."[5]Further, the ambit of the guideline is also inconclusive keeping in mind the definition of SI's, especially in context of ecommerce platforms which may not ordinarily form part of such definition but could very well be roped into it.

Stumbling block for E-commerce

The Safe harbor protection accorded to intermediaries per the act exempts them from any liability for any third-party information, data or communication link which may be hosted by them or made available by them to a person who access such data.[6]However, this exemption

[1]Amazon India, *Author, Publisher & Vendor Guides. https://www.amazon.in/gp/help/customer/display.html?nodeId=201909210.* (last visited Jan. 20 2022)

[2]S.H. Salman, *India's e-commerce market to see 300 mn shoppers by 2025*, THE LIVE LAW (Jun. 11 2020). https://www.livemint.com/industry/retail/india-s-e-commerce-market-to-see-300-mn-shoppers-by-2025-11591894031861.html.

[3]Debopama Bhattacharya, *The Information Technology (IT) Rules, 2021, IDSA comment on* The Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021. https://www.idsa.in/idsacomments/it-rules-2021-dbhattacharya-040621. (last visited on Jan. 20 2022).

[4]*In re: Prajwala letter dated 18.2.2015 videos of sexual violence and recommendations,* S.M.W.P. (Crl.) No. 3/2015.

[5]The Information Technology Act, 2000, § 87(2).

[6]The Information Technology Act, 2000, § 79(1).

is available when the intermediary acts as a "mere conduit" or functions as a passive transmitter.[7] So, exemption merely on this criterion is a chimera for the e-commerce platforms. As far from just facilitating transmission, the online marketplaces such as Amazon provide services like fulfillment by Amazon where goods are stored in amazon fulfillment centers and their shipping along with customer services are provided by Amazon.[8]Therefore, an exemption citing Section 79(2)(a) of the IT Act cannot be claimed by online marketplaces. So, the further question which arises is whether they can claim protection under Section 79(2)(b), as the Hon'ble Delhi High Court had observed in the case of *Amazon seller services pvt. ltd. v. Medicare ltd.*[9]that Section 79(1) applies when criteria either under (a) or (b) along with (c) is fulfilled, sub clause (c) being a mandatory provision. With respect to the requirement under 79(2)(b), the consumer is the one who initiates the transactions as long as he exercises the user click then it's the customer who initiates the transaction. Also, recipient of the communication, which is the buyer, is not chosen by the ecommerce intermediary. They do not change any of the information in the transmission, such as the product choice, the quantity of units, and so on. So, an ecommerce platform cannot be granted protection under (a), and it could never be denied protection under sub-clause (b).[10]

If such an approach categorizing the intermediary as mere conduit is followed then it would result into a situation where under no ordinary circumstance could liability accrue on to an Ecommerce marketplace as it would always receive the protection of safe harbor under 79(1), this is essentially due to the nature of ecommerce marketplaces which is based on an invitation to offer, with a user-oriented and user-derived modes of trade. Even the AI based "Rekognition API" of Amazon which is one of the most advanced automated content moderation services, does not in itself go on to take down or modify content, but is limited to identification and labelling the content (text, images, videos) based on the filters provided by the user (intermediary).[11]So, an ecommerce platform though does not operate as a mere conduit, but at the same time it could in every circumstance claim the benefit of section 79(2)(b) which lays down three conditions as discussed hereinbefore.

The vacuum

[7]Christian Louboutin SAS v. Nakul Bajaj and ors., 2018(76) PTC508(Del).

[8]Amazon Sellers India, *Amazon India Seller Standards.* https://sell.amazon.in/sell-online/fulfillment-by-amazon?ref_=asin_soa_rd&ext_vrnc=hi&ld=inrgooginkenshoo_502X109191_b_c_347414083365_asret_&gclid=CjwKCAiA_omPBhBBEiwAcg7smQ2X4BWt26-D-CDuP6j42eh4ECSt8X7h6kb9Bjphwu9_ZABCDUcZ4RoC1AkQAvD_BwE. (last visited Jan. 20 2022).

[9]Amazon seller services pvt. ltd. v. Medicare ltd.,2020 (81) PTC 399 (Del).

[10]*Id.* at ¶ 121.

[11]Amazon AWS, *Amazon Rekognition Content Moderation.* https://aws.amazon.com/rekognition/content-moderation/. (last visited, Jan. 20 2022).

The criteria to be used to assess whether e-commerce platforms are in conformity with the requirements under Section 79 of the IT Act for such platforms to effectively claim safe harbour protection have not yet been definitively determined by Indian courts.

Therefore, a vacuum is being created if we rely solely on the provisions of Section 79(2) at least with respect to passive Ecommerce platform, in this context we would be required to follow an approach of actual knowledge similar to Section 79(3),[12] but wider and elaborate. So, to make this regulation more subjective and meaningful an additional requirement in the form similar to that imposed on hosting services by the draft proposal of the EU Digital Services Act("DSA") should be made which under Article 5[13]provides intermediary protection for hosting services.

Compatibility of DSA with Indian standards

A special emphasis is made on the Digital Services Act of the European Union to rectify the anomaly caused by the ineffectiveness of sub-clauses (a) and (b) of Section 79, the IT (amendment) Act, 2008 which provided for intermediary protection in Indian under its Section 79 was based on the Ecommerce directives of the European Union with a combination of both actual knowledge approach, and an ineffective nature of service approach (conduits, caching, hosting services). For instance, the exemption of liability of mere conduits under Section 79(2)(b) is verbatim to Article 12 of the Ecommerce directives, 2000.[14] Additionally, the concept of "Significant social media intermediary" under the Intermediary guidelines 2021 is similar to "very large online platforms" under Digital Services Act, under which such significant intermediaries are required to comply with additional due diligence requirements due to their wide user base. Even the object and purpose of this sole provision which governs Intermediary protection in India is in favor of a minimalistic approach, as observed by the Delhi High Court in *My Space Inc. v Super Cassettes Industries,*[15]where the Court observed that safe harbor protection under Section 79 is neither an enforcement provision nor does it attract any penal liability on non-observance, the scope and understanding of the purport behind the provisions was delineated by stating that *"The underlying objective of Section 79 is to guarantee that an intermediary is allowed certain safeguards in terms of universally accepted norms of intermediary liability, as well as to promote digital trade and economy. Section 79 is not an enforcement provision, and it*

[12]The Information Technology Act, 2000, §79(3).
[13]Proposal for a Regulation of the European Council and of the Market on a Single Market For Digital Services (Digital Services Act) and amending Directive, art. 5, 2020, 2000/31/EC(E.U.).
[14] Directive on Electronic Commerce, art. 12, 2000 (E.U.).
[15]My Space Inc. v Super Cassettes Industries, 2017 (69) PTC1 (Del).

does not specify any penalties for noncompliance. It establishes a structure in which intermediaries must adhere to specified minimal requirements in order to avoid responsibility; it is an affirmative defence rather than a blanket immunity from liability."[16]So, it is required that universally accepted norms are followed by the intermediaries to not lead such protection into blanket immunity at least for the Ecommerce platforms in India.

Article 5 of DSA states that an Information society service which allows for storage of information of a user, shall not be liable for storing information on the request of recipient of the service, if such a service provider (a) does not have actual knowledge of illegal activity or such content, or is unaware of the facts or circumstances by which such an illegal content is apparent, (b) And upon obtaining such knowledge acts in an expeditious manner to remove or disable access to such content. [17]

The applicability of such a mechanism would also complement Section 79(3)(b) which provides for an actual awareness or actual knowledge approach for setting intermediary liability. So, an intermediary is liable only if it has an "actual knowledge" which as per the SC in case of *Shreya Singhal* v. *UOI*[18]should mean to be having knowledge received from either a court order or an order from a suitable government authority in that regard.[19] More compelling reason for envisaging a provision similar to Article 5 is that it provides a combination of safeguards and duties, the terms *"is not aware of facts or circumstances from which the illegal activity or illegal content is apparent"* necessitates that the intermediary should be unaware of even the facts and circumstance which may apparently indicate existence of an illegal activity to claim exemption. Further, in the light of the new complain and redressal mechanism is allowing complaints by individuals, it is important that the actual knowledge requirement as envisaged under DSA is followed, which allows for either notices from the individuals through complaints or by the mechanism for self-inspection by the intermediaries,[20]such a mechanism and interpretation would also complement the Rule 10 of the Intermediary guidelines 2021 which provides for a grievance redressal mechanism where

[16]*Id.* at ¶ 47.
[17]*Supra*note11.
[18]Shreya Singhal v. UOI, AIR 2015 SC 1523.
[19]*Id* at ¶ 117.
[20] Adoption 22, Proposal for a Regulation of the European Council and of the Market on a Single Market For Digital Services (Digital Services Act) and amending Directive 2000/31/EC, 2020 (E.U.).

the grievance is required to be redressed within 15 days,[21]also the self-regulating mechanisms also provided under rule 12.[22]

Additionally, the DSA through this provision tries to ensure that when the intermediary or online platform allows the users to enter into agreements with distant traders, then also If it is apparent or leads consumers to believe that the information was either provided by the intermediary himself or could be modified and be controlled by the intermediary then even such a belief would take away the exemption provided to hosting service.[23]

Thus, the balance struck between liability and exemptions to hosting services by the EU Act is very well founded especially considering the stringency of the Intermediary guidelines 2021 which have an elaborate regulating mechanism, redressal system and a code of ethics which places heavy burden on intermediaries (either social media intermediary or the significant social media intermediary).

Insufficiency of Intermediary guidelines 2021

Again, with respect to the due diligence requirements of an ecommerce platform we ought to consider that the guidelines for a SI, and SSI differ drastically, and roping in E-commerce platforms under the Intermediary guidelines 2021 will be counterproductive. For instance, Rule 3 which governs both an intermediary, SI and SSI, provides for publishing rules and regulations on the website of the intermediary, they are required to inform that they ought not to publish illegal content and non-fulfillment of takedown request would give them a right to terminate access by the intermediary, they are required to secure their computer resource and information contained in them etc.[24] While SSI's are also required to appoint a chief compliance officer and a 24x7 nodal contact person, SSI's are required to undertake general monitoring through technologically deployed methods etc. these SI's and SSI are generally "publishers of news and current affairs content"[25] so they are also bound by a self-regulating mechanism and a model code. Thus, the compliance burden or the due diligence burden on these intermediaries is heavy, coupled with this the chaotic definition of SI's under the intermediary guidelines 2021 which states as "primarily or solely enabling online interaction between two or more users and allows them to create, exchange, upload, share….information."[26]Now, exchange between two users is possible at any online platform

[21]The Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021, Rule 10.
[22]*Id.* at Rule 12.
[23]*Supra* note *13*, Art. 5(3).
[24]The Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021, Rule 3.
[25]The Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021, Rule 4.
[26]The Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021, Rule 2(1)(w).

be it ecommerce or a social media platform, so it can very well include even intermediaries other than social media intermediaries, including online marketplaces. Therefore, placing such heavy burden on Ecommerce platforms would lead to an inefficient result, and to work out this result, eventually the government could attempt to bring online marketplaces within the definition of SI's as interplay of Section 79(2)(a) or (b) could not effectively regulate ecommerce platforms and also even clause (3) carrying the actual knowledge approach under the provision is unproductive as it's just a simple compliance mechanism which places no onus on the ecommerce platform despite such platforms having considerable means to filter out illegal content.

CONCLUSION

The alternative framework achieved by such application of actual knowledge approach is both balanced as a due diligence requirement and as a framework to weed out illegal and tainted content from the platforms. As additionally such a mechanism would prevent any general monitoring by these platforms which in itself may lead to greater deals of scrutiny affecting the privacy of the users of such platforms. As for the Intermediary guidelines, 2021 they are considered to be "progressive, liberal and contemporaneous,"[27] nonetheless, they face challenges surrounding the right to privacy, free speech and expression, and is accused of being ultra vires to the parent act at various high courts.[28]

Moreover, as we approach Republic Day there are multiple sellers at Amazon which are selling a plastic model of national flag along with the state emblem for display in vehicle,[29]despite such use of state emblem and flag being prohibited under the State Emblem of India (Prohibition of Improper Use) Act, 2005.[30]Realizing such inaction it is required that the government now shifts its focus on ecommerce platforms, and introduce a balanced framework allowing the ecommerce industry to bloom within the perimeter of public policy.

[27]Press release, MINISTRY OF INFORMATION & BROADCASTING (Feb. 21 2021) https://pib.gov.in/PressReleasePage.aspx?PRID=1700766 (last visited Jan. 20 2022).

[28]Ayushi Saraogi, *IT Rules Challenges May Reach Supreme Court*, The Supreme Court Observer (Jul. 24, 2021). https://www.scobserver.in/journal/it-rules-challenges-may-reach-supreme-court/.

[29]Amazon India, *VOILA Car Dashboard Indian Flag Cross Design Stand Satyamev Jayate Symbol Stand for Car Standard. https://www.amazon.in/Dashboard-Indian-Design-Satyamev-Standard/dp/B09HZWX4PN/ref=sr_1_2_sspa?keywords=car+dashboard+flag+india&qid=1642696273&sprefix=car+dashboard+flag+%2Caps%2C403&sr=8-2-spons&psc=1&spLa=ZW5jcnlwdGVkUXVhbGlmaWVyPUFBRTdPM1gxTlhONkkmZW5jcnlwdGVkSWQ9QTAzMzEzNTk4QlkzSUVVUEJEU0omZW5jcnlwdGVkQWRJZD1BMDQ2ODc5MTEyOEExRlAwOUpIM0smd2lkZ2V0TmFtZT1zcF9hdGYmYWN0aW9uPWNsaWNrUmVkaXJlY3QmZG9Ob3RMb2dDbGljaz10cnVl.* (last visited Jan. 20 2022).

[30] The State Emblem of India (Prohibition of Improper Use) Act, 2005, §3.

Online Gaming and Regulation in An Inverse Proportion

Aditi Mohapatra*

Abstract

In the face of the current epidemic, digital platforms have come to the people's rescue, and they are now used in practically every area, including education, job, and gaming. Due to a lack of legal understanding among the people, the Madras High Court has raised the issue of online gaming platform regulation, citing the growth in their abuse and the entrance of illegal activities through such platforms. For a number of reasons, the article aims to highlight the issue of India's lack of online gambling legislation. Throughout the debate, the author will argue that lawbreakers have used the void to engage in unlawful gaming and betting. The article examines present regimes for regulating such circumvention and explains why the center, rather than the state, should be involved. The paper will offer the status quo of other nations to prove our points and assess the system's flaws. Likewise, the government's approach to online gaming regulation will be examined via the examination of previous and unsuccessful government initiatives to present an extensive and clear picture of the government's position. It also discusses the challenge of using skill and chance tests over the internet and offers advice and a possible approach to regulate the current situation.

Keywords: Gambling Legislation, Internet, Online Betting, Online Games, Video Game Laws

I. Introduction

In this decade, India's video game industry has advanced significantly. Previously, the term "video game" conjured up thoughts of computers or cassette-based games; but, with the advent of digitalization, the term "video game" has expanded to include smartphones, virtual reality headsets, and other portable devices. The introduction of video games on smartphones has resulted in a significant increase in people's digital gaming activity. The researchers saw an increase in user participation in online gaming among individuals aged 25–35 years, as well as a slight rise in female users, during the COVID-19 lockdown.[1] Demonetization has

*Aditi Mohapatra, 4th Year, BBA LL. B, KIIT School of Law,

aditi.mohapatra21@gmail.com

aided in the transition of the general people, regardless of socioeconomic position, to digital platforms for most daily functions like online bill payments, online money transfers, and other similar duties. Furthermore, during this COVID-19 outbreak, the demand, usage, and popularity of numerous online games, including TeenPatti, Rummy, Poker, and other fantasy games, has skyrocketed in our nation.[2]In the previous decade, India, as one of the world's most promising gaming markets, has seen a spike in the number of gaming websites throughout the world.[3]According to recent research conducted in India by the well-known firm KPMG, the country's gaming business would reach a value of Rs. 250.3 billion in the next four years, that is 2024.[4]

The growth of the Indian digital gaming industry highlights the surge in gambling and betting. It is common knowledge that there is a profusion of programs available on the internet that allow users to wager and gamble real money on dependent events and games of chance. According to research published by the "International Centre for Sports Security," India has an alarmingly high incidence of engagement in betting operations.[5]The current betting industry in India is estimated to be worth roughly 130 billion dollars, according to the ICSS research.[6]This begs the issue of whether or not these gaming platforms should be regulated because of the potential for them to encourage unlawful betting, gambling, and lottery operations.

Surprisingly, India currently lacks specialized online gambling and gaming legislation, leaving the government with little choice except to control these platforms using physical rules, namely the skill vs. chance criteria.[7]Physical testing on digital platforms has been questioned for a variety of reasons, including the difficulties of applying restricted and severe physical rules to dynamic and vast digital networks. The reality that gambling activities demand different levels of expertise on physical and online platforms is overlooked, as are

[1]K. P. Amin, et al, 20 *Online Gaming During the COVID-19 Pandemic in India: Strategies for Work-Life Balance*,INT. J. MENTAL HEALTH & ADDICTION (2022)

[2]Aaroha Kulkarni, 7 *Victims of the Virtual Vortex: Regulating the Video Game Industry in India*, COMMUNICATION, MEDIA, ENTERTAINMENT AND TECHNOLOGY (2020)

[3]Supaarna Dutt D' Cunha, *How Digital in India is Growing up into a Billion-Dollar Market*, FORBES (last visited Apr. 7, 2022), https://www.forbes.com/sites/suparnadutt/2018/03/09/how-online-gaming-in-india-is-growing-fast-into-a-billion-dollar-market/?sh=ce8f9f655b62

[4]*The Evolving Landscape of Sports Gaming in India*, KPMG (last visited Apr. 7, 2022),https://assets.kpmg/content/dam/kpmg/in/pdf/2019/03/online-gaming-india-fantasy-sports.pdf

[5]Vivek Benegal, 108(12) *Gambling experiences, problems and policy in India: a historical analysis*, ADDICTION (ABINGDON, ENGLAND),2062–2067(2013) https://doi.org/10.1111/j.1360-0443.2012.04068.x

[6]*Id.*

[7]Sanju George, et al, *Should Gambling Be Legalized in India?*, INDIAN JOURNAL OF PSYCHOLOGICAL MEDICINE 43(2) (2021)

the considerable risks of manipulation and cheating on these digital platforms. This is not an issue exclusive to the federal government or the Supreme Court, they have decided to remain silent in the face of such open and active illegal action.[8] As a result, the author of this article has emphasized the critical need for special laws for video games, as well as the present legal system's failings in regulating these games.

II. Literature Review

1. Benegal, V., Gambling Experiences, Problems And Policy In India: A Historical Analysis, Addiction (Abingdon, England), Volume 108, 2013

This study aims to outline a historical review of gaming in India, as well as current anti-gambling laws. From antiquity to the present, gambling has been a popular hobby and a pervasive element of daily life. Recent events, such as the proliferation of sports betting operations and online betting sites, are upending the status quo, triggering calls for gambling to be legalized. The author assembles data from a survey of existing literature, including historical sources, lay press publications, and online sources, to offer an overview of gambling and anti-gambling legislation from antiquity to the present.

2. Gupta, R., Legalising Betting in Sports: Some Reflections on Lawmaking, Economic and Politi, Volume 48, No. 48, (November 30, 2013)

In this paper, the author argues that arguments over allowing sports betting in the wake of the Indian Premier League controversy elicit two main problems about our legal and legislative processes, as well as how we respond to such scandals. Initially, the author disputes the state's moral power to prohibit gambling. Further, the paper examines the ineffectiveness of legislation as a viable reason to abolish or alter it.

3. Jha, Inakshi, Dey, Shantanu, Legalisation of Gambling on Outcomes of Sporting Events—A Farcical Solution to an Uncontrollable Problem? Nirma University Law Journal, Volume 3, Issue 2, 2014

[8]C.S.S. Ravishankar, *Online Gaming, Gaming Laws & legal Puzzles in India*, ICSI (last visited Apr. 7, 2022) https://www.icsi.edu/media/portals/22/Gaming%20Laws.pdf

The authors of this article want to analyse the polemic subject of legalizing sports betting in India within the limitations of the evolving legal structure. Both the authors have engaged in a thorough analysis of the Indian Gambling Laws affirming the aims of inclusion and continue to a comprehensive illustrated perusing a set of arguments arguing for and against the issue's cause, employing a sequential assessment of the subject in hand. The second half of the paper, which is aware of the Pro-Legalization Agenda movement's ideological underpinnings, makes a concerted effort to propose constructive structural explanations for the manifestation of the desired change before coming to a conclusion by clarifying the authors' stance on the issue and highlighting the Legislative Dynamism argument.

4. Valleur, M., Gambling and gambling-related problems in France,Addiction(Abingdon, England), Volume 110 , Issue 12 , 2015

The author of this paper aimed to present an overview of France's gaming environment and gambling-related issues, including history, law, gambling policy, and epidemiological statistics on excessive gambling. Since the establishment of the royal lottery in 1776, governmental monopoly has been the cornerstone of French gambling regulation. While land-based gambling remains largely a state monopoly, the internet gaming market was partly liberalized in 2010. And in reaction to the surge in gambling venues and possibilities, regulating bodies were formed, mounting evidence of gambling-related concerns, European Commission pressures, and the expansion of internet gambling. According to the paper, the incidence of problem gambling is much greater among internet gamblers in France than among land-based gamblers; nevertheless, this disparity cannot be explained only by the fact that online gaming is more addicting.

5. Pawar, Sakshi, Lohiya, Naman, Legalising Online Sports Betting In India: a Gamble Unto Itself? Indian Journal of Law and Public Policy,Volume 4, Issue 1, 2017

In 2017, the Supreme Court of India decided to rule on the constitutionality of letting Pan-India sports betting and internet betting platforms. However, many nations in this contrast consider gambling to be illegal within their borders. Furthermore, many jurisdictions' laws have not kept up with technology advancements and do not regulate internet gambling. Many Indians continue to illegally utilize online betting sites and invest millions of rupees in the

industry, establishing a parallel underground economy. The author of the paper addresses the lack of regulatory frameworks in this industry and offers improvements that would usher India to legalize online betting.

6. Kulkarni, Aaroha, Victims of the Virtual Vortex: Regulating the Video Game Industry in India, Communication, Media, Entertainment and Technology, Volume 7, 2020

Technology has become more accessible as a result of globalization. Since children mainly utilize sophisticated electronics for entertainment, most traditional games and leisure activities for children have been replaced by video games. The author discusses the current state of India's video game industry and assesses recent game bans. In addition, the author tries to evaluate the varied effects that video games have had on the Indian population. Furthermore, current law attempting to govern the video game business is examined, as well as legislation in use across the world. This research project looks into how video games may be controlled more strictly and effectively, as well as possible solutions.

7. George S, Velleman R, Weobong B., Should Gambling Be Legalized in India?, Indian Journal of Psychological Medicine, Volume 43, Issue 2, 2021

The research aims to objectively assess the advantages and disadvantages of legalising and regulating gambling in India, as well as provide future suggestions. The main arguments in this paper advocating the legalizing and regulation of India's illicit gambling/gaming business concentrate around the fact that it is a massive sector in terms of economics. As highlighted in the paper, the quantities of money engaged in India are enormous, as are the numbers of persons involved, with sports betting being the most popular type of illicit gambling. Gambling and gambling-related disorders have a negative influence on the most vulnerable in society, according to research from throughout the world. According to the authors, there is currently no compelling justification in favour of gambling legalization in India. They conclude that at this point, the question, "why should gambling be tolerated," should receive more attention than the how-to question, "how can it be legalized." Ethnographic data that has been well-designed and epidemiological studies across India should be used to address the why issue.

8. Avula, Kedara Gouri, Enactment Of The New Online Gaming Acts – A Game Changer In Socio - Economic And Legal Perspective – A Need Of The Hour, Aayushi International Interdisciplinary Research Journal, Special Issue No. 86, 2021

The author states that new gaming legislation must be enacted in India as soon as possible. Gambling, poker, casinos, lotteries, betting, and other related activities are all subject to gaming legislation, with a concentration on gambling legislation. With the exception of Nagaland and Sikkim in the north-eastern states, which have implemented Online gambling, there are no such gaming laws that have been passed in India as a result of technical innovation. This article provides a critical assessment of the necessity for new gambling legislation in India, in general, and in Andhra Pradesh, in particular. Considering how these events tempt participants by displaying money as well as using both "Game of Skill" and "Game of Chance "to achieve financial gain, tournament organizers are exploiting legal loopholes and getting away with it, which demands strong laws to prohibit.

9. Rathakrishnan, B., George, S., Gambling in Malaysia: An overview, BJPsych International, Volume 18, Issue 2, 2021

In the 19th century, Chinese traders seem to have introduced gambling to Malaysia. In Malaysia, gambling is immensely popular in both legal and illicit forms. Lotteries, casino games, and horse racing are permitted types of gambling in Malaysia, however, all kinds of sports betting and internet gambling are prohibited. Regardless of this, Malaysian gambling research is lacking, and there is no comprehensive plan in place to address gaming-related issues. This paper provides an overview of the Malaysian gaming industry, gambling legislation, and research findings to date, as well as making recommendations for the future.

10. Amin, K.P., Griffiths, M.D. & Dsouza, D.D., Online Gaming During the COVID-19 Pandemic in India: Strategies for Work-Life Balance,International Journal of Mental Health and Addiction, Volume20,2022

The author discusses the Online Gaming Industry in India during the COVID-19 Pandemic in this paper. At the time of writing, the unique coronavirus pandemic has brought the whole globe to a halt, infecting millions of people globally. The Indian government launched state-wide lockdown and self-isolation regulations to fight the spread of COVID-19. As a result,

many people have experienced disruption in their jobs and schooling as well as psychological hardship as a result of the actions. The gaming sector, for example, has been remarkably unscathed by the epidemic, with user involvement increasing significantly over this time. According to the author, previous study data shows that most gaming participation is beneficial and that the advantages can be educational, physical, and psychological. It also implies that bad gaming is associated with psychological issues. During the COVID-19 epidemic, the author emphasizes the importance of providing the best mental health treatment to the whole public, particularly vulnerable populations.

III. The Current Legal Situation in India Regarding Online Gambling

The Indian Constitution permits both the federal and state governments to enact laws governing gaming, including gambling, lottery, and other forms of gambling, and a few states have done so. Because state governments have not modified their local laws to meet the requirements of the contemporary technological era, the introduction of the internet has rendered these laws ineffective. It creates loopholes and provides miscreants wide reign. To provide a fuller picture of the issue, the authors will use existing state legislation, court declarations, and the perspectives of the federal and state governments to describe the present position with online gambling.

At first, all gambling operations in India were governed by the central statute known as The Public Gambling Act, 1867. This law prohibited all gambling and betting industries, with the exception of lotteries and skill games.[9]In addition, all states are empowered to establish legislation to control such activities in their jurisdiction under Entry 34, List II of the Constitution of India's Seventh Schedule. [10]Various states have attempted to interpret the legality of internet gambling in their jurisdiction in the past. Orissa,[11]Assam[12]and Telangana[13] have all outlawed any form of stakes-based internet gambling. Furthermore, since there was no way to trace them, leading to revenue losses for the state, the Government of Maharashtra

[9]Public Gambling Act, 1867, §3.

[10]Public Gambling Act, 1867, §6.

[11]The Orissa Prevention of Gambling Act,1954, § 3.
[12]The Assam Game and Betting Act,1970, §14.

outlawed internet lotteries in their jurisdiction.[14] The states that are most receptive to internet gaming are Sikkim[15] and Nagaland[16]. The "Sikkim Online Gaming (Regulation) Amendment Act 2015" allows service providers to set up online gaming machines in gaming parlors that are connected to a LAN. As a result, internet gambling in Sikkim is theoretically limited to gaming houses, casinos, and other licensed establishments.[17]

The Nagaland Prohibition of Gambling and Promotion and Regulation of Online Games of Skill Act, 2015, aims to regulate and operate online games of skill through the granting of licenses by the Nagaland government.[18]This Act grant licenses to any internet site to run games like rummy, poker, and other similar games in all states where such games are legal. Section 11(1) said that state governments shall notify the licensing authority of Nagaland if licensees infringe the terms of this Act, local laws, or norms. [19]Despite the fact that this act should be viewed as a great step forward in the field of internet gambling, however, a specific component of the statute raises concerns regarding its constitutionality. The act's section 7(3) permits any firm formed in India to apply for a license, and the licenses are valid across the country. This clause simply challenges the validity of the legislation, which has previously been challenged in court on the basis that state activities must have some "territorial and geographical link" with the state in question.[20]It's also worth noting that state laws can't be imposed outside of the state's geographical limits. As a result, this act might be viewed as lacking constitutional legality, which can be challenged in court.

Furthermore, the Law Commission of India's 276th report was prepared in mid-2018 to investigate the possibilities of legalizing betting and gaming in India. The group first

[13]The Telangana Gaming(Amendment)Act,2017,§3.

[14]*Maharashtra Decides to ban Online Lotteries*, CRICKET PREDICTION (last visited Apr. 7, 2022),https://cricketprediction.com/gambling/lottery/decides-ban-online-lotteries/.

[15]The Sikkim Online Gaming (Regulation)Act,2008, §3(1).

[16]The Nagaland Prohibition of Gambling and Promotion and Regulation of Online Games of Skill Act, 2015, §2(10).

[17]LAW COMMISSION OF INDIA, REP NO.276 ,LEGAL FRAMEWORK : GAMBLING AND SPORTS BETTING INCLUDING IN CRICKET IN INDIA,(2018).

[18]The Nagaland Prohibition of Gambling and Promotion and Regulation of Online Games of Skill Act, 2015, § 7(3).

[19]The Nagaland Prohibition of Gambling and Promotion and Regulation of Online Games of Skill Act, 2015, § 11(1).

[20]Jay Sayta, *Despite its Flaws, Nagaland's Legislation on Online Games of Skill Excites the Gaming Industry,* SWARAJYA (last visited Apr. 7, 2022),https://swarajyamag.com/books/despite-its-flaws-nagalands-legislation-on-online-games-of-skill-excites-the-gaming-industry

proposed that, given the current climate, legalizing betting and gaming across India is not acceptable, and that a blanket prohibition be implemented. [21]

Nevertheless, the study recommended outlawing acts be made illegal in India, acknowledging India's rapid growth of online gaming and adding that a blanket ban would not help the government control gambling in the nation.[22] Aside from that, the research made several recommendations for the government to consider if it decides to build a regulatory framework in India to address this issue. According to the research, the government can use Sections 67 and 69A of the Information Technology Act to manage to gamble and bet on online platforms if it wishes to outlaw them. [23]

If the government agrees to regulate betting and gambling in India, cash generated from online gaming might be utilized for public benefit, according to the research.[24]The panel advised that the linking of PAN and AADHAR should be established to safeguard vulnerable parts of society to regulate online gambling and betting while keeping the state's economic and social welfare in mind.[25]It was also recommended that betting be classified by income slabs, preventing low-income individuals from participating in high-rate betting. While investigating online betting platforms, the panel also examined abroad websites and concluded that a considerable amount of money is being transferred to foreign countries, causing the Indian government to lose money. The panelists stated that stopping these behaviors is difficult and that players should always use VPN.

As a result, the best potential solution is to regulate these websites and alter FDI and FEMA regulations to help increase FDI in the country, which would assist generate money.[26] Furthermore, the panel recommended that the Central government utilize its legislative jurisdiction under Articles 249 and 252 of the Indian Constitution to regulate

[21]Auroshree, *276th Law Commission Report on Legal Framework: Gambling and Sports Betting Including in Cricket in India,* THE SCC ONLINE BLOG (last visited Apr. 7, 2022), https://www.scconline.com/blog/post/2018/09/05/276th-law-commission-report-on-legal-framework-gambling-and-sports-betting-including-in-cricket-in-india/

[22]Aditi Singh, *Law Commission Recommends Regulated Gambling and Betting in Sports to Curb Fraud*, MINT (last visited Apr. 7, 2022), https://www.livemint.com/Politics/347GdwsMY2a0fScdJpuHPK/Law-Commission-recommends-regulated-gambling-and-betting-in.html

[23]The Information and Technology Act, § 67,69A

[24]Raadhika Gupta,48(48) *Legalising Betting in Sports: Some Reflections on Lawmaking,* ECONOMIC AND POLITICAL WEEKLY, 13–15. (2013). http://www.jstor.org/stable/23528912

[25]*Supra* note., 20

[26]Sakshi Pawar and Naman Lohiya, *Legalising Online Sports Betting In India: a Gamble Unto Itself?* **INDIAN JOURNAL OF LAW AND PUBLIC POLICY** 4(1) (**2017)**

online gambling.[27] In addition, the panel recommended that the state adheres to using the authorities granted by the Seventh Schedule to regulate gaming and gambling on a physical basis. Despite the fact that the panel recommended several measures to regulate online gaming and gambling for the state's social welfare as well as income creation, the government has taken no action to date. Questions concerning the central government's activities in response to the law report's recommendations abound in the legislature, but no response has yet been received.[28]

Dr. Shashi Tharoor submitted a private bill in late 2018 in response to the issue, which included some of the recommendations from the 276th law commission report. Online Sports Gambling refers to games that include predicting the outcome of a sports event as well as making a wager on the outcome, in part or whole, of such sporting event, using a telecommunication device, according to Section 2(n) of the law.[29]The third chapter of the bill discussed the regulation of betting operations on internet platforms and proposed the formation of an online sports betting commission. The government should allow FDI in licensed online sports gaming, according to section 25 of the law.[30] Although this law was presented in 2018, it has yet to be passed. This measure, however, was a welcome step toward regulating internet betting, but it was limited to sports betting and did not include online gaming.

The legality of online gaming has been questioned in a number of cases before the courts. *M/s Gaussian Networks Pvt. Ltd. v. Monica Lakhanpal and the State of NCT*is one of the relevant cases.[31]The court ruled in this instance that skill games played for money in digital space are banned since there is a substantial risk of game manipulation when played on virtual platforms.[32] Further, the court held that the level of ability required to play online games cannot be compared to that required to play offline games. Furthermore, the Supreme Court ruled in *Dr. K.R. Lakshmanan v. State of Tamil Nadu,*[33] that offline rummy is a skill game. While debating the issue of online rummy, the Supreme Court decided to

[27]Inakshi Jha and Shantanu Dey, *Legalisation of Gambling on Outcomes of Sporting Events—A Farcical Solution to an Uncontrollable Problem?* NIRMA UNIVERSITY LAW JOURNAL 3(2) (2014)

[28]Sneha Johari, *No Clarity on the Status of Online Gaming and betting in India*, MEDIANAMA (last visited Apr. 7, 2022),https://www.medianama.com/2019/02/223-online-gaming-betting-status-unclear-india/

[29]The Sports (Online Gaming and Prevention of Fraud) Bill, 2018, § 2(n).
[30]The Sports (Online Gaming and Prevention of Fraud)Bill,2018,§25.
[31]M/s Gaussian Networks Pvt. Ltd. v. Monica Lakhanpal and the State of NCT,CRPNo.119of2012.
[32]Abhishek Saxena & Aashna Kothiyal, *Poker In India - Left Poker Faced By Regulations*, MONDAQ (last visited Apr. 7 2022),https://www.mondaq.com/india/gaming/866462/poker-in-india--left-poker-faced-by-regulations%20.
[33]Dr. K. R. Lakshmanan v. State of Tamil Nadu, (1996) 2 SCC 226.

put a hold on the debate over whether the game is a game of skill or chance and directed the federal government to decide.[34]The federal administration has yet to express its thoughts on the subject. While deciding on a case involving offline rummy, the Madras High Court expressed worry about the absence of regulation surrounding online gaming and ordered the state government to develop regulations to appropriately control the position of online gambling and gaming.[35] As a result, there is still some doubt about whether or not an online skill game is prohibited. Thus, we may deduce that, despite the urgent need for a robust framework, the relevant government has taken no action, resulting in a static state of online gambling.

IV. A Global Perspective

There are grey areas in gaming regulation not just in India, but also in other countries such as a lack of regulatory standards for gaming, gambling, betting, and so on.[36]On a global scale, the issue of regulating internet gaming is more complicated; other nations' perspectives on online gaming legislation may be split into three categories: total ban, no-ban, and partial ban. [37] The authors attempted to evaluate the state of online gaming regulation in Australia, France, Malaysia, Russia, Switzerland, the United Kingdom, and the United States of America in order to have a better understanding of the issue.

Both the federal and state governments control internet gambling in Australia. Internet gambling activities such as online casinos, poker, blackjack, and other games are outlawed under the country's Interactive Gambling Act of 2001. Furthermore, Section 7A of the Act forbids the promotion of interactive gaming websites designed specifically for Australians.[38] When the authorities have awarded licenses, sports betting, horse racing, greyhound racing, and other similar activities are authorized in Australia.

In France, unlike in Australia, internet gambling is regulated solely by the federal government. Because the financial benefits of online betting outweighed the negative effects in the country, all forms of internet betting and gambling are legal in France, with

[34]Swati Shalini, *Is Online Betting or Gambling Legal in India,* MY ADVO (last visited Apr. 7 2022),https://www.myadvo.in/blog/Online-Gambling-Is-India-Game/
[35]D. Siluvai Venance v. State, (2020) SCCOnLineMad1546

[36]*Gaming Translation: Which Countries Don't Allow Online Gambling?,* JACKPOT TRANSLATION (last visited Apr. 7 2022),https://www.jackpottranslation.com/2017/04/27/gaming-translation-which-countries-dont-allow-online-gambling/
[37]*Supra* note. 16
[38]The Interactive Gambling Act, 2001, § 7A.

the exception of classic casino games such as roulette and slot machines, which were proven to be more addictive than other games.[39]Furthermore, internet gambling is governed by the Gaming Act, which is a federal law. The Regulatory Authority for Online Games, commonly known as the *Autorité de régulation des Jeux en ligne*, was established under this Act.[40]And it was in charge of regulating the tariffs and licensing provisions for online gambling in France. [41]

As an Islamic state, the Malaysian government formerly forbade all forms of gaming in the nation. Telecommunication is included in the source of betting under The Betting Act of 1953, which explicitly forbids any operator from engaging in any type of betting activity.[42]This Act, however, included various exceptions after acquiring permissions, such as betting on horse races and lotteries. Aside from that, Malaysia prohibits all forms of gaming and gambling. Furthermore, the country's Syariah Criminal Offenses (Federal Territories) Act, 1997 expressly states that all forms of gaming shall be illegal in the country.[43]However, the Malaysian government is considering allowing for internet gambling and is also mulling a tax moratorium to incentivize online gaming in the nation, according to the Philippine Amusement and Gaming Corp (PAGCOR). [44]

Furthermore, under Russian Federal Law N244-FZ172[45] only five distinct gambling zones were permitted to operate in venues with slot machines and table games.[46] Russians gamble on overseas websites because the Russian government is more concerned with regulating gaming firms than with people, resulting in income losses for the government. In the case of *Pskov Region v. Rostelecom*,[47] the Russian Supreme Court also held that Russians must be barred from utilizing any online gaming platforms. In India, for example,

[39]Marc Valleur,*110*(12) *Gambling and gambling-related problems in France.* ADDICTION (ABINGDON, ENGLAND), 1872–1876. (2015). https://doi.org/10.1111/add.12967

[40]GAMINGACT,2010, art.35.

[41]*Supra* note., 35

[42]Balan Rathakrishna, Sanju George, *Gambling in Malaysia: An Overview.* BJPSYCH INTERNATIONA 18(2) 32–34. (2021)https://doi.org/10.1192/bji.2020.55

[43]The Syariah Criminal Offences (Federal Territories) Act,1997, §18.

[44] Will Malaysia Open up to Online Gambling?, ASIA GAMING BRIEF (last visited Apr. 7, 2022), https://agbrief.com/news/malaysia/16/09/2020/will-malaysia-open-up-to-online-gambling/

[45]FederalLawN244-FZ172,2006.

[46]Stephen Carter, *Online Betting in Russia: an Overview*, I GAMINGBUSINESS, (last visited Apr. 7, 2022) https://igamingbusiness.com/online-betting-in-russia-an-overview/

[47]Deputy State Prosecutor for the Pskov Region v. Rostelecom (Case No. 91-KGPR12-3).

there is a controversy about whether poker is a "game of chance or skill,"[48] while in Russia, doubt over what game should be included in gambling lingers, despite the fact that gambling is illegal.

There is a federal system in Switzerland, which implies that the center has the authority to pass laws at both the national and state levels. The Money Gaming Act of 2017, which enables all types of online gaming in the state, governs online gaming. This legislation has been challenged for vote across the country due to the destructive aspects of gambling. After receiving a majority of votes in a referendum, this measure was eventually passed in 2019. It was introduced to curb addiction and govern all types of internet gaming. [49]

In the United Kingdom, internet betting and gambling are governed under the United Kingdom Gaming Act of 2005.Gaming is defined in Section 6 of the Act as "playing a game of chance for money." [50]The term "game of chance" is defined under this act to encompass games that combine skill and luck, as well as those in which skill triumphs over chance.[51] Section 9 deals with all sporting activities, including bets on races, tournaments, and other events.[52] Section 50 of this Act says that only people over the age of 18 are able to participate in gaming and gambling activities, preventing youngsters from doing so.[53]Users above the age of 16 can also participate in lotteries, small gambling, and betting within the terms of this Act. In order to operate in the nation, a Gambling Commission has been formed to give licenses to providers of such services, who must pay an extra remote gaming charge.[54]

The US regulatory framework permits all three levels of government, namely the federal, state, and local governments, to enact legislation governing internet gambling. The Unlawful Internet Gambling Enforcement Act governs online gambling in the nation. This statute prevents operators from taking any monetary instrument in connection with Unlawful Internet Gambling of their own volition. Unlawful Internet Gambling is described as knowingly placing, receiving, otherwise conveying a bet or wager intentionally by any mechanism that employs, at least in part, via the Internet, where the

[48]*Supra* note., 42
[49]*Supra* note., 16
[50]The United Kingdom Gambling Act, 2005, §6.

[51]The United Kingdom Gambling Act, 2005, §6(2).

[52]The United Kingdom Gambling Act, 2005, §9.
[53]The United Kingdom Gambling Act, 2005, §50.
[54]The United Kingdom Gambling Act, 2005, §20.

bet or wager is illegal under any relevant Federal or State law in the State or Tribal lands where it is initiated, accepted, or otherwise made.[55]This law also makes it illegal for any financial institution to handle transactions between Americans and internet gambling websites. Furthermore, the Interstate Wire Act of 1961 prohibits all forms of internet gaming and betting[56] with the exception of online casinos.[57]Among legal experts and the judiciary, there has been a disagreement about the interpretation of legislation. As a result, the legal status of internet gambling in the United States remains murky.

The authors discovered that different governments have challenges with regulating and managing internet gaming in their territory after examining online gaming, gambling, and betting laws in different countries. A number of the uncertainties that exist in the Indian government also exist in other countries. For example, the Russian government has banned all forms of gambling in the country but has been unable to regulate those who gamble on overseas websites. In addition, the question of whether poker is a game of chance or skill exists in Russia, as it does in India. Furthermore, Australia has failed to prevent its residents from gambling on overseas sites. Regulations in the United States, like those in India, are vague when it comes to including games of chance in gambling, making it difficult to regulate these activities.

The writers have also acknowledged that adopting some of the regulatory procedures used in other nations might help India get back on track. The UK government's regulations on the internet gambling can be implemented by the country, as they remove any ambiguity concerning the matter. India can take into account the act's provisions prohibiting minors from participating in gaming and gambling, which is a critical factor in terms of laws. In addition, the Malaysian government's approach of enabling international players to invest while delaying taxation for operators may be used as a wise policy for luring investments. Furthermore, the French law established a governing body to supervise licensing and tariff rules; this is a crucial step that India has yet to take and must be addressed quickly.

[55]UnlawfulInternetGamblingEnforcementAct,2006, §5362.

[56]United States Department of Justice, *Whether Proposals By Illinois And New York To Use The Internet And Out-Of-State Transaction Processors To Sell Lottery Tickets To In-State Adults Violate The Wire Act*, JUSTICE.GOV(last visited Apr. 7, 2022),https://www.justice.gov/sites/default/files/olc/opinions/2011/09/31/state-lotteries-opinion.pdf

[57]Thompson v. Master Card International, 313F.3d257(5thCir.2002).

V. Virtual Space Applicability of Physical Tests

Because there are no specialized regulations to control gambling and betting activities, the reliance must be placed on the skill and chance tests designed for physical platforms, as stated in the first portions of the article. The authors' argument against imposing physical exams in virtual space is based on variations in skill levels on both platforms. There is a greater need for the presence of mind in front of other competitive players in the physical area, whereas there is ample time to react to rivals' activities in online forms. Furthermore, in physical space, an individual plays alone since there is no opportunity for consultation, however, on online platforms, an individual may always consult other individuals, dividing the skill test. The most significant distinction is that online platforms have the potential for manipulation, cheating, and collision. There's a good likelihood that in online games with more than two players, some people may join up against others for monetary gain. Furthermore, with software games, there is a risk of technical disparity from the service provider's end or from technically savvy players who create hackers or exploit software flaws.

The issue is not limited to the differences in gaming activity between physical platforms and online mediums, but also extends to the applicability and enforcement of physical laws on online portals. The "Public Gambling Act 1867" in India applies to the "United Provinces, East Punjab, Delhi, and the Central Provinces," and it clearly outlaws the operation of common gaming establishments and other public gambling operations.[58]However, because gaming and betting regulations fall under the scope of the state list, Entry 34 in the seventh schedule of the Indian Constitution, this act is subject to the applicability of state legislation.[59] As a result, if a state legislator has passed gaming legislation, the gambling act is effectively abolished in that state. This occurrence appears to be acceptable, but because it is accessible from anywhere in the country, it puts pressure on the capacity of different state legislation to be applied to internet platforms. The Delhi Gambling Act, for example, prohibits games of chance[60]but the Goa Gambling Act contains special provisions that allow gambling.[61] While this regulatory disparity is visible in physical space, it is difficult to implement on digital platforms. It's also worth noting that, unlike now, state gaming and

[58]Public Gambling Act 1867, §3.
[59]Public Gambling Act 1867, §6.
[60]Delhi Public Gambling Act, 1955, §3.
[61]The Goa Public Gambling (Amendment)Bill,2012, § 13(b).

betting law in India was written or implemented during a period when digital media and the Internet were rare. As a result, except for Sikkim and Nagaland, no state legislation specifically addresses internet gambling, which is limited to physical locations.

Except in Assam [62]and Orrisa[63](where gambling is illegal), gambling is only allowed in "common gaming halls" under all state gambling regulations. [64]Common gaming halls are public facilities designed for the purpose of profit by attracting individuals to participate in "instrumentalities of gaming" with the intention of earning or losing money owing to the risk involved. Casinos are the most well-known example of such buildings. As a result, private locations are not considered gaming houses, and gambling in such locations is not considered illegal. Because it's unclear if virtual spaces belong under the same category as traditional gaming establishments, this circumscribed illegality of gambling activities has raised questions regarding the applicability of ancient state laws to internet portals. In *Mahalakshmi Cultural Association v. Director, Inspector General of Police*, this matter was brought before the Supreme Court. [65]Although the court reviewed the problem, the writ before the federal court was found to be infructuous when the court was about to resolve the difficulty since the initial petition filed in the Madras High Court was withdrawn by the association of attorneys. In the recent case of *D. Siluvai Venance v. State*, the Madras High Court highlighted a similar issue,[66] where the court expressed concern about the absence of regulation of gaming on internet platforms when determining on the instance of offline rummy. As a result of this plot twist, it's still up in the air whether or not state law will include internet gambling. This enigma opens the floodgates for the court to examine each case separately and determine whether or not the online game may be controlled under current legislation. There is always a quandary over the applicability of regulations in the virtual gaming area due to the delay in court declarations and the lack of a straight jacket methodology.

[62]The Assam Game and Betting Act,1970, §14.
[63]The Orissa Prevention of Gambling Act,1954, §3.
[64]Pratyush Kumar Jena and Vishal Chaudhary, *The Legalisation of Betting in India* (last visited Apr. 7, 2022),https://www.livelaw.in/columns/the-legalisation-of-betting-in-india-161835

[65]Mahalakshmi Cultural Association V. The Director, Inspector General of Police, (2011) SCCOnLine Mad 1997.

[66]D. Siluvai Venance v. State, (2020) SCCOnLine Mad 1546.

VI. Recommendations and Suggestions

With the advent of online gaming activities in India, there has been controversy on which road should be taken. There have always been disagreements between those who feel that all online gambling sites should be prohibited and those who believe that these platforms should be regulated. Individuals who are opposed to regulating online gaming activities frequently argue that doing so will allow people to engage in such unethical acts. Furthermore, the authors argue that it is difficult to properly manage these platforms due to the quick rate of technical progress and the scope of dynamicity within their grasp. As a result, modifying the Information Technology Act alone will not solve the problem of online gaming discussed in the prior chapters.

However, it must be overlooked that a total prohibition would result in a rise in covert illicit betting and gambling operations, which will ultimately prove to be more dangerous to society. Furthermore, the fact that an act cannot be regulated is a poor justification for not doing so at all. Certain initiatives toward regulating these platforms, according to the authors, must be implemented. There are several reasons for making this assertion. To begin with, internet gambling is already allowed in the nation, and the authorities are nothing near putting an end to it. Second, it is common knowledge that most persons associated with the underworld are engaging in such operations and that their proceeds from these platforms are used to fund terror. Legalization would not only stop the movement and spread of black money, but it will also bring in a lot of money to the state.

Regulating internet gambling, as previously said, is difficult and cannot be accomplished simply by changing current legislation. To regulate these platforms, the government should develop specifications to ensure that enforcing these laws does not result in an unethical outcome. To begin, the government should take strong measures to impose a blanket prohibition on children and other vulnerable members of society. This is a difficult aim to attain, but it may be accomplished by placing requirements on these websites. Websites should be required to take all reasonable precautions to guarantee that minors are not participating in gambling activities on their site, which may be accomplished through different checklists and due diligence. The government should also prohibit the display of any undesirable or pornographic content on such sites, which is commonly done through adverts.

Physical gambling has always been simple to regulate due to its physical representation and the fact that such domains are well-known since they are generally played at regular gaming

establishments. There appears to be no set restriction in the case of online gaming, so people from other nations can join, further complicating the matter. As a result, the government should enact strict anti-money laundering and anti-foreign direct investment legislation. The severity of current sanctions can be enhanced to increase the rigor of these rules. Furthermore, the government should concentrate on taxing these dynamic and revenue-generating platforms thoroughly and correctly. The implementation of these measures will enable the government to generate additional money without losing funds to the dark economy or foreign operators. [67]

The problem of online gaming, on the other hand, cannot be solved simply by amending current rules or enacting new legislation for this burgeoning industry. As a result, establishing and establishing a supervisory organization that can supervise the Indian and international functioning of online gambling would be essential to properly regulate this activity and for that matter any system of work. By issuing periodical notices for their regulation, this authority will aid in addressing the dynamic nature of such platforms. Furthermore, the obligation does not cease with the formation of such distinct entities. These entities should also have quasi-judicial and administrative powers, including:

- When online gaming rules are enacted, the supervisory body's first task should be to assess existing online gaming platforms and weed them out if they do not meet the legal requirements. It is possible to do so shortly after the establishment of a body like this. The body after institutions can offer gaming platforms a fair time to submit all necessary information about their existence, such as assets, tax receipts, a business strategy, and ownership structure, among other things. [68]
- Any information from these gaming platforms should be available to the supervisory authority for the purposes of due diligence, investigation, and verification of any substantial infractions or criminal activities that happened after these online platforms were shut down. In cases of criminality, as well as when internet platforms engage in the black economy, tax evasion, or disseminating degrading content, the supervisory body should be given the right to penalise the culprit with harsh penalties.

[67]Kedara Gouri Avula, *Enactment Of The New Online Gaming Acts – A Game Changer In Socio - Economic And Legal Perspective – A Need Of The Hour,* Aayushi INTERNATIONAL INTERDISCIPLINARY RESEARCH JOURNAL 86 (2021)

[68]*Supra* note., 67

- The body should also be forced to establish a separate cell within its institutions where citizens may make concerns. It will aid the regulatory authorities in identifying illegal and unsuitable internet platform functions. Additionally, because the regulatory body has quasi-judicial powers, it can mediate conflicts between persons and websites by providing sufficient counsel. The judicial functions can operate in a similar way to the consumer courts. In the event of criminal activities, however, the supervisory body should be given the power to order the competent authorities to begin the proceedings.
- Finally, gaming commissions can be created in each state to ensure that the supervisory board functions effectively. These commissions may maintain a close eye on gaming activity both in-person and online in their respective state jurisdictions. The commission might report any illegal practices to the board, which could then take prompt measures to stop them. These commissions will improve the supervisory boards' performance and allow them to have surveillance and control in all parts of the country.

Although the aforementioned changes in the status quo are not thorough, they do provide a wide framework for regulating online gaming businesses. The key issue that may still require consideration once the above-mentioned ideas have been implemented is that of foreigners engaging in online gambling operations in India. In the case of the *Board of Control for Cricket v. Cricket Association of Bihar & Ors*[69], the Supreme Court of India issued an order directing the law commission to investigate the situation and fix the vacuum regarding foreign involvement. Various research studies and committee reports have been published since then, but the existing gap in foreign involvement has not been adequately addressed or given serious consideration. Separate legislation, on the other hand, is likely to solve the issue completely.

VII. Conclusion

It is a well-known fact that in desperate circumstances, extreme measures must be taken. In this period of modernity, there are two worlds: the physical world and the digital world. The physical world's rules are well-established, but lawmakers are constantly modifying them. Despite the esteemed Prime Minister's persistent advocacy on behalf of Digital India, internet platforms remain one of the country's most underserved industries. Finally, because of the distinct functioning, scope, and sample area of these platforms, India should abandon its

[69]Board of Control for Cricket v. Cricket Association of Bihar & Ors., (2016) 8 SCC 535.

approach of regulating online gambling through physical legislation. Furthermore, if the Indian government is unable to introduce new legislation, it might duplicate essential features of numerous international laws based on their enforcement and implementation in India. Despite the fact that the judiciary has always been active in identifying the issues surrounding the regulation of online platforms, it has always been cautious in applying a dynamic interpretation to existing legislation. It is a well-known reality that legislation cannot be introduced regularly, and so the judiciary, rather than advising the state to introduce new rules, can give life to outdated statutes in the meantime. The necessity for new legislation, on the other hand, is never rejected since the court is limited to interpreting current laws and cannot create new policies. Although the authors acknowledge that fully regulating such platforms is very impossible, this should not deter the government from enacting comprehensive law that covers as much as feasible. The dynamic nature of such platforms can only be managed by establishing a separate regulatory agency with the authority to issue notifications and rules on a regular basis in order to keep tabs on online gambling operations. Furthermore, in the argument over whether online gambling sites should be fully banned or regulated, the authors believe the latter is more possible. The basis for this decision is that a comprehensive prohibition is unenforceable because of the Internet's international nature, which means that a ban will not prevent the masses from engaging in gambling activities. Furthermore, because of its global reach, online gaming should not be regulated by state laws. The author believes that laws governing internet gambling should be enacted by parliament and that they should apply uniformly across the country. While gambling activities are covered by the state list, the fact that internet and mass communication are covered by union list entry 31 cannot be overlooked.[70] Finally, when it comes to regulating online gambling sites, the legislature should avoid adopting a rigid and uncompromising attitude toward gamblers. The legislation should emphasize protecting gamblers' rights from unscrupulous players, fraudulent platforms, and hackers.

[70]INDIACONST.sch.7, list I, Entry31.

Pegasus – Spyware with Wings as Seen from a Legal Lens

Ashutosh Chandra*

Abstract

Recently, FBI had revealed that Pegasus was supposed be used for surveillance of offender. The fact coupled with the reports indicating the India bough the spyware and there has been usage found, this article deals with the legal implication of the use. Even though the usability of Pegasus is in contention by the Indian government, the article will analyse a scenario had the software been used and the legal admissibility of evidence that is acquired through Pegasus. The primary question that would arise would be concerned with the violation of the privacy of an individual. Since the information that is acquired through the usage of Pegasus has been essentially obtained without consent and knowledge of the target, there would also be questions of admissibility of evidence acquired through Pegasus for using the evidence against someone. This article will focus on both these legal standpoints and make an argument that the information cannot be administered on the grounds of violation of substantive as well as procedural law.

Key Words: Pegasus, Privacy, Evidence, Admissibility, IT Act

I. Introduction

With the advent of technology, 'end-to-end encryption' has become the norm to protect what an individual sends or receives on an application or a website. To define the term 'end to end encryption'', it is a system of communication where only the participants of a particular conversation can have access to the data shared. It protects your data from a third party, which comes across as a noble way forward. The most apparent usage of the term can be seen on a common widely used application, that is, WhatsApp[1]. However, in the recent past, the levelled field of technology has been threatened. In 2019, the matter of spyware developed by an Israeli surveillance firm, NSO group, came out in a US Court. The spyware named

*Ashutosh Chandra, Jindal Global Law School, 19jgls-ashutosh.c@jgu.edu.in

[1]WhatsApp, 'About end-to-end encryption' (*WhatsApp*, 2021) https://faq.whatsapp.com/general/security-and-privacy/end-to-end-encryption/?lang=en

'Pegasus' provided an entry into phones of people and facilitated access to the private data of users[2]. This essentially breaches the line established by end-to-end encryption.

The technology provides law enforcement agencies with the power to infiltrate handheld devices such as a mobile of an individual, and gain control of the device. Once this is done, data regarding the individual present on the device is collected. This includes, calls made by the person, their contacts, messages, their browsing history, and alike. In addition, the person's camera and microphone can also be accessed and data about the individual or their surrounding through the same can be acquired. Their location and movement could also be accessed. The spyware essentially allows agencies of the government in a country to extend their surveillance capabilities by monitoring the mobile device of the person. Most problematically, this method could be adopted without the person knowledge, much less consenting to the process[3].

In July 2021, a report by Amnesty International came to light that stated that the spyware was used to spy on hundreds of individuals. This number also included Indians.[4] In addition, a statement was made by the NSO group that the spyware is only sold to vetted governments. Due to this, the possibility of usage of spyware by the Indian government was brought into question in the same period.

In the same month, a petition was filed in the Supreme Court of India. This petition desired to allow a Special Investigation Team (SIT) monitored solely by the court to investigate the matter.[5] Of course, in the middle of this, the ruling Indian Government party had claimed that the list released by Amnesty International could not be directly related to the NSO group. However, the Amnesty International in response made it clear that the findings of the report released by them were not disputed.[6] Later, in May 2022, the Federal Bureau of Investigation

---

[2]The Times of India, *Pegasus Snooping: How costly is the Israeli spyware?* THE TIMES OF INDIA, July (2021) https://timesofindia.indiatimes.com/business/india-business/pegasus-snooping-how-costly-is-the-israeli-spyware/articleshow/84893498.cms.

[3]Stephen Shankland, *Pegasus spyware on State Department phones: What you need to know CNET*, Dec (2021) https://www.cnet.com/tech/mobile/pegasus-spyware-on-state-department-phones-what-you-need-to-know/.

[4]Amnesty International, *Massive data leak reveals Israeli NSO Group's spyware used to target activists, journalists, and political leaders globally*, AMNESTY July (2021) https://www.amnesty.org/en/latest/news/2021/07/the-pegasus-project/.

[5]Express News Service. *Pegasus row: Plea in Supreme Court seeks court-monitored SIT probe*, THE INDIAN EXPRESS, July (2021) https://indianexpress.com/article/india/plea-sc-sit-probe-pegasus-snooping-allegations-7416757/

[6]D Ghose, and L Matthew, *Amnesty International rebuts claim by BJP, says it 'stands by' Pegasus reports,* THE INDIAN EXPRESS, July (2021) https://indianexpress.com/article/india/project-pegasus-false-rumours-unlawful-targeting-amnesty-7416993/

revealed that it did aim to use Pegasus spyware for operations with Israel's approval. Its intention was to collect data of those people it had been monitoring and investigating for criminal activities and terrorism.[7]

Having stated the current position on the matter, this article deals with the legal implication of the use of Pegasus. Even though the usability of Pegasus is in contention by the Indian government, the article will analyze a scenario had the software been used and the legal admissibility of evidence that is acquired through Pegasus. The primary question that would arise would be concerned with the violation of the privacy of an individual. Since the information that is acquired through the usage of Pegasus has been essentially obtained without consent and knowledge of the target, there would also be questions of admissibility of evidence acquired through Pegasus for using the evidence against someone. This article will focus on both these legal standpoints and make an argument that the information cannot be administered on the grounds of violation of substantive as well as procedural law.

II. Analysis

1. The Relevant Provision

It is to be noted that Section 69 of the Information Technology Act, 2000 ("IT Act") deals with the issuance of directions for interception or decryption of any information through any computer source. The issue of Pegasus being used can be analyzed under the subject. Section 69(1) states that the direction can be issued by either the state government, the central government or any of the officers appointed by the former two mentioned. The governments or the officer for the issuance must be satisfied that such direction is necessary or expedient to be issued in the interest of sovereignty or integrity of India, defense of India, security of the State, friendly relations with foreign states or public order or for preventing incitement to the commission of any consignable offence relating to the above or for the investigation of the offence. In the necessity of the same, any agency of the appropriate government can be directed to intercept, monitor, or decrypt or cause to do so any information generated, transmitted, received, or stored in any computer resource as per the section. Further, provision 69(1) is subject to sub-section (2), the latter stating that procedure and safeguards subject to which such interpretation and monitoring or decryption as previously mentioned in

[7] '*FBI Aimed to use Pegasus spyware for operations with Israel's approval, report reveals'* MIDDLE EAST MONITOR, May (2022) https://www.middleeastmonitor.com/20220514-fbi-aimed-to-use-pegasus-spyware-for-operations-with-israels-approval-report-reveals/

the previous provision may be carried out. In lieu of the Section, the Supreme Court had said it is necessary to obtain information through decryption for detection, prevention, and investigation of criminal activities, which in furtherance may protect the sovereignty of the State and the dignity and reputation of an individual.[8]

The power to monitor, intercept or decrypt information had been given to 10 central bodies or agencies by the Ministry of Home Affairs in 2018.[9] These agencies or agencies include National Investigation Agency and Cabinet Secretariat. As such, this did not increase the scope of the power that was given by the section previously. Further, Sections 69A and Section 69B specifically talk about power to issue directions for blocking for public access of any information through any computer source and power to authorize to monitor and collect traffic data or information through any computer resource for cyber security respectively[10].

2. Discretion of the Authority

The process of decrypting, intercepting, and monitoring information under the Rules laid down do not have adequate procedural safeguards that have to be adhered by a Competent Authority as per the author.[11] Even though each order that is passed for surveillance is only reviewed by a three-member committee, this his committee would consist of the cabinet secretary, legal secretary, and the telecom secretary of the union government as per the Information Technology Rules, 2009 for Section 69(2) of the Act[12]. As a rule of requirement, scrutiny of the order for surveillance prior to issuing is also not necessary as per the Supreme Court with regards to the Telegraph Act 1997 in the People's Union of Civil Liberties v. Union of India case in 1996[13].

This means, during the process of passing the order and possibly intruding on someone's privacy, no outside agency or the committee formed even needs to be consulted. And although this has been done in furtherance of safeguard of the society, it has adverse legal implications for the members of the society. The primary implication is that a particular authority is given power with no check. The authority has the full discretion to use the power

[8]*Facebook Inc. v. Union of India* [2019] T.P. Civ. No.(s) 1943-1946/2019 https://main.sci.gov.in/supremecourt/2019/27178/27178_2019_13_24_17064_Order_24-Sep-2019.pdf
[9] '*Home Ministry Allows 10 Central Agencies to Engage in Electronic Snooping*, THE WIRE, Dec (2018) https://thewire.in/government/home-ministry-allows-10-central-agencies-to-engage-in-electronic-interception
[10]The Information Technology Act [2000]
[11]Information technology (Procedure and safeguards for interception, monitoring, and decryption of information) Rules [2009], Rule 3
[12] Information Technology (Procedure and Safeguards for Interception, Monitoring and Decryption of Information) Rules [2009]
[13]*People's Union of Civil Liberties v. Union of India* [1996] AIR 1997 SC 568

and constitutes the sole determinant of when to issue an order. The consequence of the same would-be scenarios where the power may be used for the personal gain of people part of the authority, or for reasons other than what it was originally intended for, and the violation of rights of the people with no adherence to the due process of law as such adherence is not checked at any stage.

3. Legality of Pegasus's Possible Use

a) Section 69 of the IT Act:

Coming to the application of Section 69, electronic surveillance if analyzed in the backdrop of Pegasus would showcase that there was spyware placed on mobile devices, thus intercepting them and data was acquired by monitoring activities ultimately, happening through the same device. Even though Section 69 specifically does not provide for the methodology for interception or decryption, the section appears broad enough to cover Pegasus in its purview. Therefore, the application of Section 69 is imminent in the case. The only question up for analysis regarding the same is that if there were conditions present as prescribed in Section 69 that would deem the surveillance to be lawful. These conditions had been previously provided.

Coming to the specific conditions that fall under Section 69, keeping in mind the circumstances of issuing of allegations, the spyware has been potentially used against journalists, activists, and political leaders in India. One other instance that had been the center of focus was the alleged sexual harassment case against former Chief Justice of India, Ranjan Gogoi, where the spyware has alleged to be used against the victim[14]. Taking the instance as an example, it must be determined if the alleged application of Pegasus would constitute legal or not.

As such, the discussed Section provides for the use of 69 for purposes relating to 'investigation of a crime'. In doing so, the scope of the law has been given a huge ambit. Along with the offence, even non-cooperation or non-assistance is also a punishable crime as per Section 69(4). However, the case People's Union of Civil Liberties v. Union of India had recognized the Right to Privacy and created safeguards for the protection of these rights against the surveillance powers of the State. One of the safeguards included a commission of

[14] A Mahaprashasta et al., '*Days After Accusing CJI Gogoi of Sexual Harassment, Staffer Put on List of Potential Snoop Targets*' THE WIRE, July (2021) https://thewire.in/rights/ranjan-gogoi-sexual-harassment-pegasus-spyware

an authority for monitoring orders, which has been discussed earlier and concluded to not be very effective because of the members of the authority. The judgement also stated that the law established to curtail the privacy of an individual should be just, fair, and reasonable.

b) Right to Privacy:

In furtherance, the landmark Puttaswamy case[15] establish an interpretation of the right which includes notions of dignity, autonomy, self-determination, and consent. Although the Right to Privacy is not absolute like the rest of Article 21, it was to be subjected to a higher threshold of "compelling state interest" along with the law curtailing privacy to be just, fair, and reasonable. Further, the case also established the 'proportionality and legitimacy' test. It lays down four criteria that need to be met for the state to take away a person's right. The test stated that the actions of the state must be because of a law, there must be a legitimate aim for action, the action must be proportionate for the need of such interference, and the action must be subjected to procedural guarantees against the abuse of the power to interfere.

The scenarios of possible surveillance using Pegasus must now be isolated as how it has been suspected to be used on individuals and the circumstances surrounding those individuals at the time of the usage. These scenarios have been mentioned before[16]. As per the author, there is no provision provided in this Section or elsewhere to issue surveillance for situations that are listed. Even if the reasoning of 'public order' or 'investigation of an offence' is cited during stressful situations in the country and the same is used to overcome the procedural safeguard provided for in the provisions discussed, there is still the matter of an individual's right to privacy.

As per the case, the requirements of legitimate aim for action and proportionate need for such interference are not met in this scenario. For the surveillance of activists and journalists, firstly, there is no legitimate aim for the action. The actions of members of such group do not result in a scenario where their rights need to be deprived. Although it is not provided what specific journalists and activists were suspected to have Pegasus installed on their phones, it is safe to assume that not all these people were being investigated in pursuit of an offence or indulging in actions constituting violation of 'public order'. In such a scenario, it would appear that there is no cause or legitimate aim behind exploiting the privacy of a person.

[15] *Justice K.S. Puttaswamy v. Union of India* [2017] 10 SCC 1

[16] Amrit Dhillion, Michael Safi, '*Indian Supreme Court Orders Inquiry into State's use of Pegasus Spyware*' THE GUARDIAN, October (2021) https://www.theguardian.com/news/2021/oct/27/indian-supreme-court-orders-inquiry-into-states-use-of-pegasus-spyware

Secondly, even if they were indulging in such actions, using Pegasus is not a proportionate response unless the matter is of very grave danger. This is so because of the amount of information that the Pegasus spyware can withdraw as explained before. Almost all data related to a person's daily life can be acquired through the usage of the phones, and not just specific data relating to once incident. The usage of camera and mic of a person's mobile without their consent would constitute a serious violation of an individual's privacy.

Therefore, more than anything, it would seem that the violation has been made for the purpose of keeping government's critics and oppositions in check. This is because journalists, oppositions and activists are main proponents of any dissent in a country. And those are the people who are target. In the absence of a grave offence such as terrorism or investigation for something of similar magnitude, such surveillance would not constitute as a proportionate response even if they indulged in some criminal action.

c) Section 5(2) of the Indian Telegraphs Act:

To reiterate the conclusion drawn from the reasoning of Puttaswamy case, the case of Vinit Kumar v. Central Bureau of Investigations and Ors can also be taken into consideration[17]. In this case, it was stated by the Bombay High Court in 2019 that CBI's order for phone tapping and surveillance for bribery charges would be ultra-vires of Section 5(2) of the Indian Telegraphs Act, 1885, which provides that messages may not be interception and detention unless their transmission has been prohibited for the same purposes given in Section 69 of the IT Act. Here, it was stated that evidence procured in violation of Section 5(2) is not admissible in a court of law, order of interception can only be given in situations of 'public emergency' or 'public safety' and intercepted in contravention of Section 5(2) needs to be destroyed. In furtherance of this case, if there is no public emergency or public safety, then Pegasus cannot possibly be used as its usage is similar to phone tapping. In fact, the usage of Pegasus may even constitute a graver violation due to the amount and nature of information acquired. Therefore, any use of Pegasus in India and evidence procured through it cannot be admitted in court. However, it is to be noted that though this decision was only given by a High Court, the reasoning appears sound even when Article 21 is given thought.

d) Right against self-incrimination:

[17] *Vinit Kumar v. Central Bureau of Investigation and Ors* [2019] 2019 SCC Online Bom 3155

Even if information is acquired by the means of Section 69 and if a person's information is admitted in a court of a law, then there is an argument that it would go against the accused's Right to Self-Incrimination as provided in Article 20(3) of the Constitution as it would constitute their personal data and information being used against them. This would be the case if the US case of Katelin Eunjoo Sen[18] was taken under consideration in India.

However, that seems unlikely given the decision of High Court of Kerala in P. Gopalkrishnan alias Dileep v. State of Kerala[19]. This case stated that in criminal cases, prosecution is entitled to access the data on an accused person's mobile phone and the same would not violate a person's right against self-incrimination.

Therefore, in a hypothetical where Pegasus was admitted as evidence, no right against self-incrimination would be granted.

III. Conclusion

It is yet to be determined if the government used the Pegasus spyware in any capacity. However, if the allegations are proven current, then there is little chance the Supreme Court would give protection to the Government under the banner of public order, public safety, investigation of an offence or even terrorism going through the past last laid down by the Court. And even though United States follows a different set of rules in general, perhaps the FBI were too ambitious in thinking they could use Pegasus for surveillance in their own country. Maybe that is the reason they never actually went through the usage of the spyware.

The Pegasus, as it is, violates the Fundamental Right of Citizens if the software has in fact been used against them. In no scenario, Pegasus can be used to bring evidence citizens in the court of law. This is because of the safeguards present in the Telegraph Act, rather than those present in the Evidence or the Information Technology Act.

Having stated the same, there is a need to reframe the procedural safeguards guaranteed within Section 69 of the Act and acquired through case laws. As it stands, they are not rigid and cannot keep in check the application of power of the government for monitoring. And while the Puttaswamy judgement can be used to protect the privacy of the citizens, it only practically happens when the victim is aware that their privacy rights are violated. For Pegasus, the victim may never realize that their phones or information is being kept track of.

[18] *Katelin Eunjoo Sen v. State of Indiana* [2020] 109 N.E.3d 418 (Ind. App. 2018)
[19] *P. Gopalkrishnan @ Dileep vs The State of Kerala* [2019] 9 SCC 161

Conclusively, while the protection of public is important, the government's power must be kept in check through legal mechanisms. For the same, it is high time the legislature steps up and amends the provisions of law.

The Role of Lesser Penalty In India's Competition Market In The Era Of Digital Communication

Olivia De*

Abstract

The genesis of granting leniency traces back to the issue of difficulty in gathering accurate shreds of evidence and data proving the existence of cartels or the involvement thereof. Indian statutes regulating anti-competitive practices like cartel have undergone revolting changes, however, with the advancement of time and technological advancement, the facility of reduction in the penalty amount awarded became imperative to establish the concept of "agreement" in any alleged anti-competitive practice. The aim of the paper is to firstly commence with analyzing the history of cartel and lesser penalty application. The paper further studies the requirements to prove a cartel and the judicial precedents in the field of judiciary awarding lesser penalty to alleged persons. Subsequently, the paper examines the issues and solutions to digital era with reference to the concept of algorithm that affects the proving of cartel. Lastly, the paper provides suggestions and solutions to investigate and adjudge algorithm-induced cartel.

Keywords: agreement, algorithm, bill, cartel, hub-and-spoke, leniency.

I. Introduction

With the economic liberalization of India's trade and economy, the Indian Competition Act' 2002, which was modelled after the European competition law and the United Nations Set of Multilaterally Agreed Equitable Principles and Rules for the Control of Restrictive Business Practices,[1] decriminalized competition law violations whilst still increasing the penalties for certain anti-competitive practices. The Competition Act' 2002[2]

* Olivia De, BBA LL. B, School of Law, Christ (Deemed to be University), Bangalore, Olivia.de@law.christuniversity.in

[1] UN General Assembly, *Consumer protection: resolution, adopted by the General Assembly* (April 161985), A/RES/39/248, https://www.refworld.org/docid/3b00f2271f.html.

[2] The Competition Act, 2003, No.12, Acts of Parliament, 2003 (India)

came into effect by replacing the Monopolies and Restrictive Trade Practices Act' 1969[3] on account of ineffectiveness in fostering competition and controlling anti-competitive practices. The Competition Act primarily addressed anti-competition agreements, abuse of dominance, combination regulation and competition advocacy. A cartel can be addressed through various industry variables such as the number or concentration of vendors, the degree of product differentiation, surplus capacity, entry obstacles, demand stability, and pricing transparency.[4]

Section 3 (3) of the Competition Act defines cartel to be, "any agreement entered into between enterprises or associations of enterprises or persons or associations of persons or between any person and enterprise or practice carried on, or decision taken by, any association of enterprises or association of persons, including cartels, engaged in identical or similar trade of goods or provision of services, which—

(a) directly or indirectly determines purchase or sale prices;

(b) limits or controls production, supply, markets, technical development, investment or provision of services;

(c) shares the market or source of production or provision of services by way of allocation of geographical area of market, or type of goods or services, or number of customers in the market or any other similar way;

(d) directly or indirectly results in bid rigging or collusive bidding, *shall be presumed to have an appreciable adverse effect on competition."*[5]

The objective behind penalizing companies which enter into cartels prohibited under Section 3 is that the penalties are quantified on the assumption that this will compensate the consumers as well as interested market players who have been aggrieved due to the anti- competitive practices through increased coordinated prices, or coordinated less supply of goods or services, or by restricting the entry of market players. The Competition Commission of India

[3] Monopolies and Restrictive Trade Practices Act, 1969, No.54, Acts of Parliament, 1969 (India).

[4] Levenstein et al. *What Determines Cartel Success?* JOURNAL OF ECONOMIC LITERATURE, 44, 43–95, 1(2006).

JSTOR.

[5] Competition Act 2002, § 3(3).

(Lesser Penalty) Regulations 2009 (Lesser Penalty Regulations) is a whistle-blower program,[6] along with Section 46[7] of the Competition Act introduced with the main objective of acting as a stimulus for incentivizing cartel members and any other applicant to cooperate and provide information on the cartel activity. Consideration is given to the contribution of full, true, and vital disclosure on its cartel activities by cartel members, which can be an enterprise and/or an individual, for imposition of a reduced penalty. This paper analyses the issue with regards to the establishment of an agreement concluding cartel and the effect of digital communication on it.

The Competition Act has been implemented with efficiency, however, the existing regulatory frameworks built for traditional products and services were not be suited for the digital economy in the fast-paced reality of digitalization, thereby, leading to the establishment of the Competition Law Review Committee by the Government of India in 2018 to evaluate current market trends and determine whether the Competition Act is in line with market practices.

II. Establishment of a Cartel Agreement

The facility of lesser penalty can only be availed if a cartel agreement is proved. According to established and recognized Competition jurisprudence, to prove a violation of Competition law by way of a cartel, it must be shown that there has been "meeting of minds" towards achieving a common goal or outcome.[8] To further prove a violation of section 3 under the Act, there must be an agreement, which includes an arrangement or an understanding, amongst the enterprises engaged in identical or similar trade of goods or provision of services.[9] Furthermore, under the provisions of Section 2 (c) of the Act, a "cartel" also includes an attempt to cartelize.[10] The relevant provisions as mentioned in section 2(b) are as under; "agreement"[11] includes any arrangement or understanding or actionin concert,-

[6] Leniency Program, Advocacy Series No. 8, Competition Commission of India, http://164.100.58.95/sites/default/files/advocacy_booklet_document/Leniency.pdf
[7] Competition Act 2002, § 46.
[8] Builders Association of India v. Cement Manufacturers' Association and Ors. (2016) CompLR983 (CCI).
[9] Builders Association of India v. Cement Manufacturers' Association and Ors. (2016) CompLR983 (CCI).
[10] *In re*: Cartelisation in Industrial and Automotive Bearings (2020), 161SCL383 (CCI) (India).
[11] Competition Act 2002, § 2(b).

(i) whether or not, such arrangement, understanding or action is formal or in writing; or

(ii) whether or not such arrangement, understanding or action is intended to be enforceable by legal proceedings;"

There has been a long-standing debate on what constitutes an agreement. The definition of the term 'agreement' is an inclusive definition in the Act which inter-alia includes any arrangement, understanding or concerted action irrespective of whether it is written/ formal or otherwise or intended to be legally enforceable. 'Agreement' has a very wide definition under section 2(b) as including "any arrangement or understanding or action in concert" whether or not such agreement is formal, in writing or intended to be enforceable by legal proceedings.[12] In *Builders Association of India v. Cement Manufacturers' Association and Ors.,*[13] it was held that there is no need for an explicit agreement and the existence of an 'agreement' within the meaning of the Act and the same can be inferred from the intention or conduct of the parties as in the concurrence of parties of the consensus amongst them can, therefore, be understood from their common motive and concerted conduct. An acknowledgment by competitors, without past understanding, of a challenge to partake in an arrangement, the essential result of which, whenever completed, is restriction of highway business, is adequate to set up an unlawful connivance."[14] However, the degree to which it is helpful to prove cartel limits to traditional cartels and not digital interceptions which are difficult to decode in order to conclude

As cartels have been categorized as a civil offense under the Act, the standard of proving the violation "beyond reasonable doubt" does not apply to Section 3 violations.[15] The CCI in *In Re: suo-motu case against LPG cylinder manufacturers,*[16] held that cartelizationnot being a criminal offense, the test for proof to be employed should be the "balance of probabilities" and "liaison of intention" test. Furthermore, it is typical for such practices and arrangements to

[12] Richard Posner, Antitrust Law 75 (University of Chicago Press, 2nd edn. 1976).
[13] Builders Association of India v. Cement Manufacturers' Association and Ors., (2016) CompLR983(CCI).
[14] The Motion Picture Industry: United States v. Oligopoly, I STAN.L. Rtv. 385 (1949).
[15] Cyril Shroff & Nisha Kaur Uberoi, *Cartel Enforcement in India: Standard and Burden of Proof, CPI ANTITRUST CHRONICLE,* (1) February 2013
[16] *In Re*: suo-motu case against LPG cylinder manufacturers, (2011), Case No 03.

occur in a covert design, for[17] parties to be held stealthily, and for related documentation to be diminished to a base. This shifts more driving force towards the economic/circumstantial evidences.[18] Courts have perceived that competition specialists are backed against the wall where individuals from cartels resort to these cryptic practices, and that consequently they may need to demonstrate the presence of a cartel by depending on derivations from circumstantial evidence. The Commission has depended upon circumstantial evidence in various cases, for instance, the ***Cement Cartel case***.[19]

Though, prima facie, it appears that the jurisprudence in relation to establishing an anti-competitive agreement is lenient, however, in India, the tribunals have noted that until and unless it is proven with reasonable certainty adduced with material evidence that there is a conspiracy or collusive design amongst the members of the association which can be reflected in any form of agreement to ward off competition, it cannot be said that mere sharing of information is an anti-competitive practice.[20] In light of the jurisprudence affecting the formation of a conclusive requirement to establish an "agreement", it can be deduced that the tribunals have taken a neutral stand to ease the process for the investigation whilst not affecting the reasonable defences for innocent companies alleged of forming a cartel.

III. Excessive Discretion for Grant of Lesser Penalty

To be granted full immunity, the first applicant for leniency must make vital disclosure by submitting evidence of a cartel enabling the Antitrust Commission to either form a *prima facie* opinion regarding the existence of a cartel where the Antitrust Commission did not have the evidence to form that opinion or establish a violation of section 3 of the Competition Act by providing evidence that the DG or the Antitrust Commission did not have.

The discretion of the Competition Commission qua reduction in monetary penalty will be exercised under Regulation 3(4)[21] having *due regard to –(a) the stage at which the applicant comes forward with the disclosure;(b) the evidence already in possession of the Commission;*

[17] OECD Report on Prosecuting Cartels without Direct Evidence of Agreement, (2007).
[18] India Glycols & Ester India Chemicals Limited Ltd. V. Indian Sugar Mills Association, Case no. 21 & 29
[19] Builder's Association of India v. Cement Manufacturers' Association, (2010) Case No. 29.
[20] All India Tyre Dealers Federation v. Tyre manufacturers, (2013) COMP LR 92 (CCI); *In Re*: Alleged Cartelisation in Flashlights Market in India, (2018) CompLR1093(CCI) (India).
[21] Regulation 3(4), Competition Commission of India (Lesser Penalty) Regulations, 2009

(c) the quality of the information provided by the applicant; and (d) the entire facts and circumstances of the case. Any application will be eligible for reduction in penalties but only on the condition that they provide information of "significant added value" to the evidence already in possession of the CCI. In the ***Nagrik Chetna Manch***,[22] the penalty was reduced on the grounds of "significant value addition to evidence, priority status, co- operation." The question that arises with regard to cartels formed through digital medium isin case of it was through codes or through facilities of "disappearing messages", how can the applicant prove it or significantly add value.

In relation to ascertaining percentage of penalty deduction, there is no straight jacket formula to decipher as to how the Antitrust Commission would exercise its powers under the Lesser Penalty Regulations,[23] The Regulation limits to providing the ceiling limit for calculation which is very wide. Furthermore, it is not mandatory under the Competition Act and the Lesser Penalty Regulations that the Antitrust Commission will grant immunity/ lesser penalty if an application is made since the operative word used in the Lesser Penalty Regulations is that the Antitrust Commission "may" grant lesser penalty.[24] The Antitrust Commission's approach towards waiver of penalty in applications has not been uniform.[25]

In ***Fortifed Security Solutions***,[26] the Antitrust Commission granted a partial waiver of penalty to only parties whose evidence, according to the Antitrust Commission, helped add value to the investigation and helped establish the existence of a cartel. With respect to 2 applications in the said case, the Antitrust Commission didn't grant any waiver of penalty, in spite of cooperation on the part of the parties, as the evidence supplied by them didn't add significant value.[27] **In *Cartelization in respect of tenders floated by Indian Railways for supply of Brushless DC Fans and other electrical items,*[28]** lesser penalty reduction was granted to 1 out of 3 companies alleged. ***In re: Cartelization in respect of zinc carbon drycell batteries market***

[22] Nagrik Chetna Manch v. Fortified Security Solutions & Others2015 CL16 CCI.
[23] LENIENCY GUIDE, Lakshmi kumran & Sridharan Attorneys https://www.lakshmisri.com/Media/Uploads/Documents/LENIENCY%20GUIDE.pdf
[24] *Id*. at 31.
[25] AADITYA RANBIR SEHGAL, BUSTING CARTELS: THE INDIAN LENIENCY REGIME, 47, NLIU LR (2019).
[26] Nagrik Chetna Manch v. Fortified Security Solutions, (2018) Comp LR 425 (CCI).
[27] Nagrik Chetna Manch v. Fortified Security Solutions, (2018) Comp LR 425 (CCI).
[28] In *Cartelization in respect of tenders floated by Indian Railways for supply of Brushless DC Fans and other electrical items*, Suo Moto Case No. 03 of 2014, Order dated (January 18, 2017).

in India,[29] for the first time, the first leniency applicant was granted 100% immunity reduction and ***in Re: Cartelization by broadcasting service providers by rigging the bids submitted in response to the tenders floated by Sports Broadcasters,***[30] the CCI granted the first applicant 100% reduction and the second applicant 30% reduction. The issue that arises is with regard to the grounds for computation of such reduction. While the elements of "adding significant value", "cooperation", "stage" and "full disclosure" is laid down, the terms grant the CCI an unbridled power to grant reduction of any limit since the terms are arbitrary and wide.

IV. Interplay of Algorithm and Cartel

The internet has grown at a breakneck pace in recent years containing over one billion websites, each storing a wealth of information and providing users and consumers with a plethora of products and services.[31] Consumers use search to find and compare products and services, as well as to make online transactions.[32] The way search engines are programmed and how they rank results can have a significant impact on a company's capacity to compete and, as a result, on its commercial behavior.[33] Algorithms could, in theory, make the establishment or maintenance of a collusive agreement between competitors easier by automating commercial operations like price hikes and facilitating monitoring.[34] Algorithms could be used automatically to align pricing according to a pre-arranged agreement, or to detect divergence from that agreed stance and retaliate quickly against it, whether operated in a 'hub and spoke' arrangement or by competitors.[35]

There have already been a few rulings that demonstrate how current competition law can manage with algorithms: in the United Kingdom and United States, there are ***Poster,***[36]

[29] *In re*: Cartelization in respect of zinc-carbon dry cell batteries market in India, Suo Moto Case No. 02 of 2016, Order dated (April 19,2018).

[30] *I*n Re: Cartelization by broadcasting service providers by rigging the bids submitted in response to the tenders floated by Sports Broadcasters, Suo Moto Case No. 02 of 2013, Order dated, (July 11, 2018).

[31] Algorithms and Collusion - Note from the United Kingdom, Organisation for Economic Co-operation andDevelopment, DAF/COMP/WD (2017)19, (May 30, 2017).

[32] *Id.*at 31

[33] *Id.*at 31.

[34] *Id.* at 31.

[35] *Id.* at 31.

[36] Case 50223 Online sales of posters and frames, (12 August 2016).

Frames,[37] ***Topkins***[38] case. Competing internet vendors used pricing algorithms and computer software to coordinate prices for posters they offered on Amazon.com in several examples. The algorithm coordinated price modifications for posters and ensured that they stayed in line with the cartel's agreement. Consumers paid the same prices for the same products regardless of which merchant they chose as a result of this behavior, thereby removing any price competition among online sellers.

Eturas (the hub) and 30 travel firms (the spokes) were fined by the Lithuanian Competition Council in 2016 for imposing a common discount cap on services delivered through the Eturas online booking platform. Customers were offered tour packages through the travel booking system E-TURAS, which was developed by Eturas.[39] The administrator of this system sent a notification to the agents in August 2012, instructing them to impose a maximum discount of 3% to their bookings.[40] Eturas also imposed a technical restriction, limiting the amount of discounts that could be submitted in the booking system to 3%.[41] Unless they openly distanced themselves from the message, travel agencies who knew about it could be believed to have participated in a cartel, according to the European Union's Court of Justice.[42]

V. Technologically Inclusive Cartel's Investigative Future

The Competition (Amendment) Bill, 2020 was drafted including the recommendations laid out in the Report of the Competition Law Review Committee submitted to Union Finance and Corporate Affairs Minister chaired by Shri Injeti Srinivas who is the Secretary of Ministry of Corporate Affairs. The Bill's goal is to broaden the Act's scope to encompass digital marketplaces by including expressly provision for hub and spoke arrangement, as well as a buyer's cartel. In hub and spoke arrangements, the spokes (competing firms) must use a third-party platform (hub) to share sensitive information, such as price information, which

[37] *Former E-commerce Executive Charged with Price Fixing in Antitrust Division's First Online Marketplace Prosecution'*, DOJ Press release, (April 6, 2015)
[38] US District Court Northern District of California, USA v David Topkins, (April 6, 2015)
[39] Hub and spoke arrangements: Note by the European Union, *Organisation for Economic Co-operation and Development,* DAF/COMP/WD (2019)89, (Nov. 13, 2019).
[40] *Id.* at 39.
[41] *Id.* at 39.
[42] *Id* at 39.

can facilitate price manipulation. The Committee recognized the corporations' strategies for avoiding inspection under the act, as well as the rulings issued by the CCI in the ***Hyundai Motors***[43] and ***Uber***[44] cases, and suggested not considering the elements of having 'known' or 'intention' for hub-and-spoke agreements.

The Bill aims to broaden the scope of Section 3, which was previously limited to horizontal or vertical agreements having an unfavorable effect on competition. Taking into account the ruling in ***Ramakant Kini v. Dr. L.H. Hiranandani Hospital***[45] the Bill intends to broaden the scope of the provision to include agreements entered into the digital market. The Bill specifically includes 'specialized assets' or 'control over data' in the list of conditions that establish a company's market dominance. The rationale behind its inclusion was to broaden the scope of the section to include internet enterprises that collect client data through user feedback loops, giving them a more targeted approach in curating a monopolistic market. The issue that arises in this front is the effectiveness of according leniency when the law is still lacking in completely covering algorithm attribute in whole.

VI. Conclusion

The digital revolution has increased corporations' ability to acquire, retain, and analyze data from customers and competitors in order to price goods and services based on a wide range of characteristics. Companies can use a pricing algorithm to track online prices, update them quickly to undercut competitors' rates, modify products provided to customers, or aid customers in finding the best deal. By translating digital inputs into digital outputs, an algorithm allows digital decision-making. Algorithms have the ability to self-learn by modifying rules based on data obtained from previous interactions/experiences. Consumers and enforcement authorities may find it more difficult to discover algorithmic abuses and acquire appropriate evidence due to the complexity of algorithms and the resulting issue of understanding their exact operation and impacts.[46] It is suggested that the CCI should firstly,

[43] Samir Agrawal v. ANI Technologies Pvt. Ltd., (2018) SCC OnLine CCI 86 (India).
[44] Samir Agrawal v. ANI Technologies Pvt. Ltd., (2018) SCC OnLine CCI 86 (India).

[45] Ramakant Kini v. Dr. L.H. Hiranandani Hospital, (2014) SCC OnLine CCI 17 (India).

[46] Algorithms and Collusion - Note from the United Kingdom, *Organisation for Economic Co-operation and Development*, 19 DAF/COMP/WD (2017), (May 30, 2017).

work to improve its understanding of how algorithms affect competitive market and consumers in online markets, including, for example, the circumstances or sectors where anti-competitive harms are more common or likely to occur. Secondly, CCI should invest in both its in-house "technological" expertise and new digital forensic tools and investigative technologies to more effectively uncover, investigate, and take action against illegal activity. Furthermore, enforcement agencies can employ the power of algorithms to better enable them to analyze big datasets in order to assess competition impacts, uncover potential anti-competitive market behavior, or devise remedies to address discovered problems.

SEC vs Ripple: Analysing the nature of XRP under American and Indian legal framework

Khush Nisar [*] ***and Devdatt Menon*** [**]

Abstract

Ripple, an American company, provides software services to make banks efficient. It had developed XRP Ledger in 2011-12 and had total control over XRP tokens which is native to the ledger. It started selling these tokens to the public since 2012. It was only in 2020 that the US SEC charged Ripple for selling XRP as unregistered security.

The token sale is being considered as a security because it is likely to satisfy Howey test and SEC's own non-binding framework on digital assets being considered as investment contracts. Ripple states that XRP is a currency because it had been registered as 'virtual currency' with an American authority. Further, it also states that SEC did not provide fair notice and hence they cannot be held liable. Lastly, it relies on William Hinaman's (former director of SEC) speech wherein he said that decentralised blockchains will not come under the ambit of security laws, since XRPL's decentralisation itself is unclear.

Nature of XRP, under Indian laws, is ambiguous and one will have to wait for the new bill to be implemented in order to ascertain the nature of tokens which are issued by companies. It is also suggested that India should emulate US and have a framework in order to ascertain the nature of the tokens sold by a company.

Keywords: Ripple, XRP, SEC, India, Cryptocurrency

I. Introduction

This article is primarily based on the US Securities and Exchange Commission's (SEC) case against Ripple because of its unregistered sale of its token, XRP before the district court of New York. SEC contends that XRP is a 'Security' whereas Ripple is of the stance that XRP is a currency. There are various factors that have to be considered in order to determine the nature of XRP.

[*] Khush Nisar, B.L.S. LL. B, Government Law College, Khushnisar28@gmail.com
[**] Devdatt Menon, B.L.S. LL. B, Government Law College, menondevdatt007@gmail.com

The nature of XRP will be analysed not only according to the American laws and framework but also according to Indian laws. Indian analyses will be brief in nature due to uncertainty around the regulation of cryptocurrencies in India.

In this article, we will be explaining and setting the context by giving a brief background of XRP and Ripple, its technology and the distribution of XRP. Thereafter we will be analysing why XRP should be considered as a security and Ripple's counter in this matter. Lastly, we will be understanding Ripple's status under Indian law. Following are the definitions of technical terms which are necessary in order to understand the nature of XRP

II. Definitions

a. XRP Ledger (XRPL) - It is a public blockchain in which all accounts in the XRP Ledger can send XRP among one another and must hold a minimum amount of XRP as a reserve. XRP can be sent directly from any XRP Ledger address to any other.[1]
b. Ripple's Escrow - This escrow consists of independent escrows which store 55 billion XRP and each month 1 billion XRP tokens are released out of which Ripple sells/ distributes tokens as required and puts the balance back to escrow.[2]
c. xVia - It enables companies to send payments to payment providers, digital wallets and other corporations. It also allows financial institutions and businesses to easily send payments to and from emerging markets.[3]
d. xRapid - It is Ripple's liquidity solution for banks that employs XRP as a bridge currency. It promises to end global payment delays and significantly reduce their costs, making cross-border payments quick and affordable.[4] In 2019, xRapid was renamed to On-demand Liquidity.[5]
e. xCurrent - It is Ripple's corporate software which is used by Banks to immediately settle international payments with end-to-end traceability. Banks can also

[1] *Introduction to XRP*, https://xrpl.org/xrp.html, Last visited 23 June, 2022
[2] David Schwartz, *An Explanation of Ripple's XRP Escrow*, RIPPLE.COM, DEC,15, 2017 https://ripple.com/insights/explanation-ripples-xrp-escrow/, Last visited on: 19 June, 2022
[3] Asheesh Birla, *Opens New Doors in Emerging Markets'*(ripple.com, 26 April 2018) https://ripple.com/insights/xvia-opens-new-doors-in-emerging-markets/ last accessed 10 June, 2022
[4] *Rapid explained*, cryptocurrencyfacts.com, June 22, 2022, https://cryptocurrencyfacts.com/xrapid-explained/, Last visited on 23 June, 2022
[5] Mason Marcobello, *What Is Ripple and the XRP Cryptocurrency?*, COINDESK, Mar 30, 2022, https://www.coindesk.com/learn/what-is-ripple-and-the-xrp-cryptocurrency, Last visited on 16 June, 2022

communicate with one another in real time using xCurrent to confirm delivery and payment information before starting a transaction.[6]

f. Ripplenet - xVia and xCurrent were rebranded to 'Ripplenet'[7]. After this rebrand, the company offered only one software solution under this name.[8]

g. SWIFT - It is a messaging network that financial institutions use to securely transmit information and instructions through a standardized system of codes.[9]

h. Node - It is a decentralized ledger used to keep track of cryptocurrencies.[10]

i. UNL - It stands for 'Unique Node List' which is a list of validators a given participant believes will not conspire to defraud them. This list is published by Ripple, the XRP Ledger Foundation, and Coil and each server operator are free to opt their own UNL based on UNL provided by the publisher.[11]

j. ICO - It stands for "Initial Coin Offering," and refers to a formerly popular method of fundraising capital for early-stage cryptocurrency projects.[12]

k. Decentralisation - It is the process of distributing and dispersing power away from a central point. It is a system in which direct peer-to-peer interactions take place without the need for an intermediary.[13] Such distribution of power makes the blockchain network to be secure because it does not have a 'single point of failure' which makes the network impossible to hack.[14]

III. Brief background about Ripple and XRP

[6] *A guide to the Ripple product suite*,coinrivet.com, https://drive.google.com/drive/folders/1OTA7-VpG1bc1DCdBTxrgpfybszRz45y, Last visited on 23 June, 2022

[7] Colin Harper, *What Is XRP, and How Is It Related to Ripple?*, COINDESK, December 12 2020, https://www.coindesk.com/tech/2020/12/11/what-is-xrp-and-how-is-it-related-to-ripple, Last visited on 19 June, 2022

[8] Cristine Vasileva, *What Is XRP, and How Is It Related to Ripple?*, bitcoinist.com, June 12 2019, https://bitcoinist.com/ripple-webiste-pushes-ripplenet/, Last visited on 24 June, 2022

[9] Shobhit Seth, *How the SWIFT System Works*, INVESTOPEDIA, 14 March 2022, https://www.investopedia.com/articles/personal-finance/050515/how-swift-system-works.asp, Last visited on 21 June, 2022

[10] *What are blockchain Nodes? Detailed Guides*, BLOCKCHAIN-COUNCIL.ORG, https://www.blockchain-council.org/blockchain/blockchain-nodes/, Last visited on 16 June, 2022

[11] *Introduction to XRP*', https://xrpl.org/xrp.html, Last visited on: 23rd June, 2022

[12] Annika Feign, What is ICO? Initial Coin Offering, www.coindesk.com, March 10, 2022, https://www.google.com/url?q=https://www.coindesk.com/learn/what-is-an-ico/%23:~:text%3DICO%2520stands%2520for%2520%25E2%2580%259Cinitial%2520coin,for%2520early%252Dstage%2520cryptocurrency%2520projectsaccessed&sa=D&source=docs&ust=1656253376657645&usg=AOvVaw1CXSoU6U1-H5A88EkWOK02, Last visited on 6 June, 2022

[13] Decentralization News, cointelegraph, https://cointelegraph.com/tags/decentralization#:~:text=A%20decentralization%20definition%20is%20that,managed%20by%20a%20single%20authority, Last visited on 13 June, 2022

[14] Werner Vermaak, *Why Nobody Can Hack a Blockchain*, www.coinmarketcap.com, May 10, 2021, https://coinmarketcap.com/alexandria/article/why-nobody-can-hack-a-blockchain, last visited on 16 June, 2022

The XRP ledger (XRPL) was launched in June, 2012 and subsequently. The developers of XRPL started a company named Newcoin in September, 2012 which was later on named Ripple.[15] After the XRPL went live, 100 Bn XRP were pre-mined after which 80 billion XRP was transferred to Ripple and 20 billion was distributed among the founders.[16] After this distribution, the entire supply of XRP was under the control of the founders. But in order to ensure market stability and to foster the trust of token holders, Ripple locked 55 bn XRP in an escrow account.[17] This cryptographic escrow account releases 1 bn XRP every month and Ripple then decides how to fund[18] its operations by selling the tokens.

Although Ripple created the ledger[19] and is the largest owner of the token[20], it maintains that XRPL is an independent entity. Further, it also admits that it is a user and an enabler to unleash the potential[21] of the token but it does not own XRPL.[22] Hence, to understand the present dispute between SEC and Ripple, it becomes pertinent to understand the relationship between Ripple and XRP.

Ripple is a company that sells software to banking and financial institutions to solve issues of making cross-border payments (xVia)[23], enabling interoperability of networks (xCurrent)[24] and providing liquidity (xRapid which is now as On-Demand Liquidity). These three softwares (xVia and xCurrent) were rebranded as Ripplenet.[25] Due to its potential to disrupt

[15]*Provide a Better Alternative to Bitcoin*, xrpl.org, https://xrpl.org/history.html#:~:text=The%20XRP%20Ledger%20first%20launched,native%20currency%2C%20to%20the%20company, Last visited on 18 June, 2022
[16]BitMEX Research, *The Ripple story*, xrpl.org, Feb 6 2018, https://blog.bitmex.com/the-ripple-story/, Last visited 15 June, 2022
[17]Brad Garlinghouse, *Ripple to Place 55 Billion XRP in Escrow to Ensure Certainty of Total XRP Supply*, ripple.org, May 16 2017, https://ripple.com/insights/ripple-to-place-55-billion-xrp-in-escrow-to-ensure-certainty-into-total-xrp-supply/, Last visited 17 June, 2022
[18]Team Ripple, *Ripple Escrows 55 Billion XRP for Supply Predictability*, RIPPLE, December 7 2017, https://ripple.com/insights/ripple-escrows-55-billion-xrp-for-supply-predictability/,Last visited 20 June, 2022
[19]Mason Marcobello, *What Is Ripple and the XRP Cryptocurrency?*,coindesk.com, Mar 30, 2022, https://www.coindesk.com/learn/what-is-ripple-and-the-xrp-cryptocurrency, Last visited on 16 June, 2022
[20]*Utility for the new global economy*, ripple.com, May 10, 2021, https://ripple.com/xrp/, Last visited 20 June, 2022
[21]*What is XRP*? And what does it have to do with Ripple?, cointelegraph, https://cointelegraph.com/altcoins-for-beginners/what-is-xrp-and-what-does-it-have-to-do-with-ripple, Last visited 20 June, 2022
[22]*Utility for the new global economy*, ripple.com, May 10, 2021, https://ripple.com/xrp/, Last visited 20 June, 2022
[23] Asheesh Birla, *Settlement in seconds, not days*, ripple.com, https://ripple.com/solutions/cross-border-payments/, Last visited 18 June, 2022.
[24]Kaspar Triebstok, *xVia Opens New Doors in Emerging Markets, medium.com*, December 14 2019, https://medium.com/@KTriebstok/why-banks-use-ripples-xcurrent-8bc8106cd1d/ , Last visited 5 June, 2022
[25]Colin Harper, *What Is XRP, and How Is It Related to Ripple?*,coindesk.com, December 12 2020, https://www.coindesk.com/tech/2020/12/11/what-is-xrp-and-how-is-it-related-to-ripple, Last visited on 19 June, 2022

the current cross-border payment system, it is often considered to be a rival of SWIFT.[26] Whereas, XRPL is an open-source, public decentralised blockchain[27] that was built to solve the inefficiencies in the traditional baking systems[28]. XRP as a native token of XRPL acts as a bridge currency to facilitate the transfer of money between two different currencies.[29]

XRP token serves the sole utility of providing liquidity for enabling the cross-border transfer of money between two different currencies, wherein one fiat currency is converted to XRP which is then converted to the required currency.[30] Since xVia and xCurrent do not require XRP, On-Demand Liquidity (xRapid) service is the only service[31] which uses XRP.

IV. Governance of XRPL

XRPL, just like other blockchains, faces the problem of double-spending and to solve this it incorporates XRP Ledger Consensus Protocol.[32] This protocol governs the functioning of the blockchain. XRPL consists of a collection of computers running a software (XRP LCP) that supports the blockchain.[33] These computers are called 'nodes' and they play an important role in the smooth functioning of the network.

Apart from exercising control over the supply of XRP, it is also alleged that the governance of XRPL is centralised.[34] Ripple releases a Unique Node List (UNL) which consists of

[26] David Rodeck, *What Is XRP (Ripple)?*, MEDIUM, March 31 2022, https://www.forbes.com/advisor/investing/cryptocurrency/what-is-ripple-xrp/, Last visited 4 June, 2022
[27]Colin Harper, *What Is XRP, and How Is It Related to Ripple?*,coindesk.com, December 12 2020, https://www.coindesk.com/tech/2020/12/11/what-is-xrp-and-how-is-it-related-to-ripple, Last visited 19 June, 2022
[28]Mason Marcobello, *What Is Ripple and the XRP Cryptocurrency?*,coindesk.com, Mar 30, 2022, https://www.coindesk.com/learn/what-is-ripple-and-the-xrp-cryptocurrency, Last visited 16 June, 2022
[29]*Introduction to XRP*, https://xrpl.org/xrp.html, Last visited on: 23rd June, 2022
[30] Sebastian Sinclair, *Ripple On-Demand Liquidity Corridor Opens Between Japan and Philippinesm*coindesk.com, July 28 2021, https://www.coindesk.com/markets/2021/07/28/ripple-on-demand-liquidity-corridor-opens-between-japan-and-philippines/ ,Last visited 4 June, 2022, *Team Ripple No More Trade-Offs: Realize Instant, Low-Cost Payments With On-Demand Liquidity*, ripple.com/, September 06 2019, https://ripple.com/insights/realize-instant-low-cost-payments-with-on-demand-liquidity/ ,Last visited 12 June, 2022
[31]Colin Harper, *What Is XRP, and How Is It Related to Ripple?*, COINDESK, December 12 2020, https://www.coindesk.com/tech/2020/12/11/what-is-xrp-and-how-is-it-related-to-ripple, Last visited on 19 June, 2022
[32]Colin Harper, *What Is XRP, and How Is It Related to Ripple?*,coindesk.com, Dec 12 2020, https://www.coindesk.com/tech/2020/12/11/what-is-xrp-and-how-is-it-related-to-ripple, Last visited on 19 June, 2022
[33] Rachel-Rose O'Leary, *How XRP's Tech Differs from Other Crypto Assets*, coindesk.com, Mar 11 2018, https://www.coindesk.com/markets/2018/03/11/how-xrps-tech-differs-from-other-crypto-assets/,Last visited 13 June, 2022
[34] Mitchell Moos, *XRP Decentralized? Ripple's Involvement in the Cryptocurrency*, cryptobriefing.com/, Mar 31 2020, https://ripple.com/insights/realize-instant-low-cost-payments-with-on-demand-liquidity/,Last visited 11 June, 2022

trusted validators. Anyone can be a validator but a select few can make it to UNL.[35] Since XRPL sacrifices decentralisation for speed, it has to increase the security of the blockchain by trusting a select few node operators to govern the blockchain-based on their past records.[36] Due to this role of Ripple, it is alleged that Ripple owns the ledger.

Ripple maintains that it is just a 'network contributor' and it does not own XRPL.[37]XRPL, according to Ripple, is not centralised because it just publishes UNL. Participants have the power to change their UNLs if Ripple acts maliciously.[38] Also, the fact that XRPL can survive if Ripple ceases to exist strengthens Ripple's stance. Hence, the independence of XRPL is in dispute and expert analysis is required to ascertain the nature of XRP as a digital asset. The role of decentralisation of blockchain networks in ascertaining the nature of tokens will be covered in the upcoming sections.

V. Distribution of XRP

Initially, Ripple used to sell XRP but eventually, it incorporated a subsidiary (wholly owned by Ripple) to carry out sales of the token.[39] SEC in its complaint against Ripple analysed different ways in which XRP was distributed.[40] Out of the different ways in which XRP was distributed, Market sales and Institutional sales are important because these sales cumulatively raised 1.3 bn USD for Ripple. Market sales were made to digital asset trading platforms, market makers and specialised traders who sold XRP to the general public. Whereas, institutional sales were made to dealers and private funds at a discounted rate to incentivize them to sell it to the general public.

[35]Colin Harper, *What Is XRP, and How Is It Related to Ripple?*,coindesk.com, Dec 12 2020, https://www.coindesk.com/tech/2020/12/11/what-is-xrp-and-how-is-it-related-to-ripple, Last visited on 19 June, 2022, Mitchell Moos, *XRP Decentralized? Ripple's Involvement in the Cryptocurrency*, cryptobriefing.com/, March 31 2020, https://ripple.com/insights/realize-instant-low-cost-payments-with-on-demand-liquidity/, Last visited 11 June, 2022

[36]Colin Harper, *What Is XRP, and How Is It Related to Ripple?*,coindesk.com, Dec 12 2020, https://www.coindesk.com/tech/2020/12/11/what-is-xrp-and-how-is-it-related-to-ripple, Last visited on 19 June, 2022

[37]*Your Questions About XRPL, Answered*, xrpl.org, https://xrpl.org/faq.html ,Last visited 18 June, 2022

[38]*Your Questions About XRPL, Answered*, xrpl.org, https://xrpl.org/faq.html , Last visited 18 June, 2022

[39] The Financial Crimes Enforcement Network, ATTACHMENT A: Statement off acts and violations

[40]*Securities and Exchange Commission v/s RIPPLE LABS*, INC., Bradley Garlinghouse,: and Christian A. Larsen, 20 Civ. 10832, ECF Case

VI. Why is XRP being considered as a security

According to the SEC, XRP is a security because it is an 'investment contract' under Section 2 (77b) (a) of the Securities Act, 1933.[41] According to Section 5(a) and 5(c)[42] of the Securities Act, it is unlawful to sell an unregistered security. Since Ripple did not register XRP with the SEC it is in violation of the law. In this section, we are going to analyse if XRP falls under the definition of 'Investment contract' by applying Howey test laid down by US Supreme Court in *SEC v. W.J. Howey Co*[43].

According to the Howey test, an asset is an investment contract if "Investment of money in a common enterprise with profits to come solely from the efforts of others". In this section, the Howey test will be analysed with the Framework[44] for analysing if a digital asset comes under the ambit of an investment contract. It should be noted that this framework is neither a rule nor regulation which must be followed nor are the parameters exhaustive.[45] Following are the four parameters to judge the nature of an asset –

1. Investment of money

The first test requires the purchase of a token to be made in exchange for fiat currency or digital asset.[46] This test is satisfied because XRP like any other token was bought using fiat currency or digital asset, the same has been accepted by Ripple in its response to SEC's complaint.[47]

2. In a common enterprise

To satisfy the common enterprise test, the asset should satisfy the horizontal commonality test or vertical commonality test.[48] Horizontal commonality requires the asset to tie the fortunes of the investors, and create a pool of assets and a distribution of profits on a pro-rata basis.[49] In this case, XRP's investors' fortunes are tied to one another since everyone is

[41]Securities Act of 1933, § 2(77)(a)
[42]Securities Act of 1933, § 5(1), 5(d)
[43] Securities and Exchange Commission v. Howey Co. 328 U.S. 293 (1946)
[44]*Framework for "Investment Contract" Analysis of Digital Assets*, www.sec.gov/, April 32019, https://www.sec.gov/corpfin/framework-investment-contract-analysis-digital-assets>Last visited 10 June, 2022
[45]*Framework for "Investment Contract" Analysis of Digital Assets*, www.sec.gov/, April 3 2019, https://www.sec.gov/corpfin/framework-investment-contract-analysis-digital-assets> Last visited 10 June, 2022.
[46]*Framework for "Investment Contract" Analysis of Digital Assets*, www.sec.gov/, April 3 2019, https://www.sec.gov/corpfin/framework-investment-contract-analysis-digital-assets> Last visited 10 June, 2022
[47]*Securities and Exchange Commission v/s RIPPLE LABS, INC*., Bradley Garlin house,: and Christian A. Larsen, 20 Civ. 10832, ECF Case Response - Para 72
[48]*Revak v. SEC Realty Corp No. 548*, Docket 93-7577, *Long v. Shultz Cattle Co* No. 88-1169.
[49]*Revak v. SEC Realty Corp No*. 548, Docket 93-7577.

equally exposed to market volatility. The money raised by Ripple ascertains the fact that there is a pool of assets. Lastly, if this test is applied literally then the investors are not receiving profits on a pro-rata basis but by an increase in the value of XRP. Hence, the application of this test will require further inspection.

The vertical commonality test is met, if the asset's success/failure directly depends on the success/failure of the promoter. Ripple's current CEO, Brad Garlinghouse had acknowledged that people were "*looking at the success Ripple has been having as a company*". Further, the company also claimed that the adoption of Ripple's blockchain technology by two major banks may open new doors for XRP.[50] This means that Ripple knew and wanted the investors to believe that XRP's success depends on Ripple's success. Hence this test is met and the common enterprise test is satisfied because one of the two tests are satisfied.

3. Reasonable expectations of profits

This test requires inquiry into "economic reality" and not the form or substance of the asset.[51] Following are the important parameters set out in SEC's framework –

a. The asset is traded in the secondary market and is not targeted to potential users.

Firstly, it is an undisputed fact that XRP was traded on the secondary market.[52] Secondly, XRP was used to solve liquidity problems faced by banking institutions and other entities which wanted to undertake cross-border transactions. Hence, XRP's sale on the secondary market was targeted at non-users. Further, the company was well aware of this fact. SEC in its complaint refers to an internal email by Brad Garlinghouse wherein he admits that "*The primary use case for XRP today is speculative and the exchanges . . . are the main enabler of this use case.*"[53] Further, Brad Garlinghouse, in an interview stated that neither does XRP

[50]*Move over Bitcoin and Ethereum*, fool.com, https://www.fool.com/investing/2017/11/24/move-over-bitcoin-and-ethereum-make-way-for-ripple.aspx,%20%20%20%20%20%20%20%20%20%20%20, Last visited 10 June, 2022
The Motley Fool, *AmEx and Banco Santander will use Ripple's blockchain network for instant intl. fund transfers. Could be a big deal for Ripple's XRP cryptocurrency*, TheMotleyFool, November 26 2017, https://twitter.com/themotleyfool/status/934850515640471553, Last visited 12 June, 2022
[51]*Securities and Exchange Commission v. Howey Co*.,328 U.S. 293 (1946)
[52]*XRP (XRP) Exchanges*, coincodex.com, https://coincodex.com/crypto/ripple/exchanges/,Last visited 9 June, 2022
[53]Securities and Exchange Commission v/s RIPPLE LABS, INC., Bradley Garlinghouse, Christian A. Larsen, 20 Civ. 10832, ECF Case, para 211

have a consumer use case and nor will it have one in the future.[54] Hence this parameter is met.

b. The promoter is able to benefit from offering the asset it holds to fund its operation.

Ripple holds the majority supply of XRP and the company justifies it by comparing itself with Exxon which holds a large amount of oil.[55] The company had put 55 billion XRP tokens in an escrow account and each month 1 billion tokens were going to be at disposal of Ripple. Hence, it is clear that the company was benefitting from holding the asset.[56] Volume-wise, Ripple's equities sales far exceeded raised around 296 Mn USD which is very less compared to its XRP sale (1.3 billion USD).

Ripple's official stated that "*Ripple Labs sells XRP to fund its operations and promote the network. This allows Ripple Labs to have a spectacularly skilled team to develope [sic] and promote the Ripple protocol.*"[57]. But still, it is unclear as to how Ripple spends its money raised[58] from XRP sales because the company only publicises XRP sales.[59] Hence, it is likely that Ripple expands its tokens to develop and promote its network.

4. Derived from the efforts of others

The last test is whether the profits investors make are derived from the efforts of others. Following are the parameters by which is laid down by SEC's framework to judge if profits are derived from the efforts of others.

a. The promoter undertakes key managerial functions (developing and promoting) to promote its interests (availing benefits by the capital appreciation of the digital asset)

Ripple is behind the development of the technology of XRPL. Earlier, it described itself to be "*focused on building technology to help unleash new utility for XRP and transform global*

[54]*Garlinghouse Transcript*, econclubny.org, Oct 8 2018, https://www.econclubny.org/documents/10184/109144/2019GarlinghouseTranscript.pdf>Last visited 6 June, 2022

[55] Jeff John Roberts, *Ripple says it will be sued by the SEC, in what the company calls a parting shot at the crypto industry*, fortune.com, Dec 22 2022, https://fortune.com/2020/12/21/ripple-to-be-sued-by-sec-cryptocurrency-xrp/ Last visited 19 June, 2022

[56]David Schwartz, *An Explanation of Ripple's XRP Escrow*, December, 15, 2017, https://ripple.com/insights/explanation-ripples-xrp-escrow/, Last visited on: 19 June, 2022

[57]*Securities and Exchange Commission V. RIPPLE LABS, INC*., Bradley Garlinghouse, Christian A. Larsen, 20 Civ. 10832, ECF Case, para 275

[58]*Securities and Exchange Commission V. RIPPLE LABS, INC.*, Bradley Garlinghouse, Christian A. Larsen, 20 Civ. 10832, ECF Case, para 5

[59] Team Ripple, *Q4 2021 XRP Markets Report*, ripple.com, Jan 28, 2022, https://ripple.com/insights/q4-2021-xrp-markets-report/,Last visited 22 June, 2022

payments".[60] Currently, it describes that it is "*focused on building XRPL tools, services and other resources*"[61] along with global developers of XRPL. Hence it is clear that even today Ripple is behind the development of the network.

Speaking of promotion, the company had organised various drives/ events to push the sales of XRP. It also engaged in advertising its success as XRP's success.[62] Few token-holding communities promoted the token, the most famous being the 'XRP army'.[63] But most of the XRP's success in the promotion can be attributed to Ripple's officials' efforts to push XRP as a solution to a 'trillion-dollar problem'.

Ripple's CEO stated that it is in Ripple's interest to have a healthy XRP market.[64] One can infer that since Ripple owned 61 bn XRP at that time it wanted to sell these tokens gradually and wanted XRP to be of value so that the company can accrue capital appreciation by holding it.

b. The promoter issues tokens to create a market and limit its supply for maintaining the market.

Ripple had created XRP[65] and is still selling the asset in the market.[66] In the past Ripple had decided when to release its token in the market which in turn enabled it to create a market for XRP.[67] Even today it makes the decision of when to sell new tokens in the market. Further, it has limited its control over the supply of XRP by putting 55 bn XRP in an escrow account.

[60]*What is XRP? And what does it have to do with Ripple?*, cointelegraph.com, https://cointelegraph.com/altcoins-for-beginners/what-is-xrp-and-what-does-it-have-to-do-with-ripple, Last visited 20 June, 2022
[61]*Utility for the new global economy*, ripple.com, May 10, 2021, https://ripple.com/xrp/, Last visited 20 June, 2022
[62]'*Rapid explained*, cryptocurrencyfacts.com,June 22, 2022, https://cryptocurrencyfacts.com/xrapid-explained/, Last visited on 23 June, 2022
[63]Adriana Hamacher, *XRP Community Tells SEC: You Don't Represent Our Interest*, DECRYPT, April 20, 2021, https://decrypt.co/68472/xrp-community-tells-sec-you-dont-represent-our-interest, Last visited16 June, 2022
[64]David Schwartz, *An Explanation of Ripple's XRP Escrow*, Dec, 15, 2017, https://ripple.com/insights/explanation-ripples-xrp-escrow/, Last visited on: 19 June, 2022
[65]*Provide a Better Alternative to Bitcoin*, xrpl.org, https://xrpl.org/history.html#:~:text=The%20XRP%20Ledger%20first%20launched,native%20currency%2C%20to%20the%20company, Last visited on 18 June, 2022
[66] Team Ripple, *Q1 2022 XRP Markets Report*, RIPPLE, May 2, 2022, https://ripple.com/insights/q1-2022-xrp-markets-report/, Last visited 16 June, 2022
[67]David Rodeck, *What Is XRP (Ripple)?*, MEDIUM, Mar 31 2022, https://www.forbes.com/advisor/investing/cryptocurrency/what-is-ripple-xrp/, Last visited 4 June, 2022

The CEO stated that this move is to support XRP's market health and to maintain market predictability.[68] Hence, Ripple was truly behind the creation and maintenance of XRP.

c. The promoter makes key decisions such as the sale of tokens in the secondary market and expenditure of funds raised

Ripple made deals with various exchanges to sell XRP in the secondary market.[69] According to Ripple, it is its top priority to get XRP listed on the best exchanges and it has employed resources to do the same.[70] This means that it has also decided the exchanges in which XRP will be traded. Further, Ripple has not disclosed the manner in which it expends the money raised[71] but it exercised control over funds raised because XRP sales were carried on by Ripple's wholly-owned subsidiary, XRP Fund LLC.

VII. Ripple's counter-arguments to the security classification of XRP

Ripple states that XRP does not fulfil Howey's test. The reasoning behind this contention is that there is no common enterprise because proceeds from XRP sales are not pooled in a common enterprise. It also adds that the company did not make any promise of profits and the investors did not expect efforts from Ripple.[72] This argument does not hold water because of the fact that the company itself undertook the activity of developing, marketing and promoting the token which has been illustrated in the previous sections.

In the past, many cryptocurrencies were classified as securities and were fined for not registering as a 'Security' at SEC.[73] But the distribution of these tokens was by virtue of Initial Coin Offering (ICO) wherein coins are offered to investors for the purpose of fundraising in order to develop their platform. Ripple relies on the fact that they did not hold any ICO and the investors bought XRP from exchanges that are third parties, hence it should

[68]David Schwartz, *An Explanation of Ripple's XRP Escrow*, Dec, 15, 2017, https://ripple.com/insights/explanation-ripples-xrp-escrow/, Last visited on: 19 June, 2022
[69]Securities and Exchange Commission, Report of Investigation Pursuant to § 21(a) of the Securities Exchange Act of 1934, Release No. 81207
[70] Team Ripple, *XRP Now on 50 Exchanges Worldwide*, RIPPLE, December 21 2018, https://ripple.com/insights/xrp-now--on-50-exchanges-worldwide/,Last visited 21 June, 2022
[71]Securities and Exchange Commission, *Report of Investigation Pursuant to Section 21(a) of the Securities Exchange Act of 1934*, Release No. 81207
[72]*Securities and Exchange Commission v. RIPPLE LABS.INC*, Bradley Garlinghouse, Christian A. Larsen. reply, Preliminary statement, Para 9,
[73] Balestra V. ATBCOIN LLC, 380 F. Supp. 3d 340, 346 (S.D.N.Y. 2019), Hodges v. Harrison, 372 F. Supp. 3d 1342, 1347 (S.D. Fla. 2019), Solis v. Latium Network, No. 18-10255 (SDW) (SCM), 2018 U.S. Dist. LEXIS 20778.

not be considered as security.[74] This stance is problematic since the company still raised funds by selling the tokens and created some sort of 'never-ending ICO' because of the number of tokens it held.[75] Further, the same company had taken credit for XRP being listed on 50 exchanges in 2017, which goes on to state the company's involvement with the sale of the token.[76]

But a major point, in this case, is that the token holders were aware that they are not entitled to the assets of the Ripple and do not hold any entitlement to share in Ripple's profits.[77] The company highlighted the difference between XRP and Ripple and stated that XRPL is independent and the company does not control it.[78] It can be fairly concluded that the investors knew the risk which came with this speculative digital asset but that does not give Ripple the impunity to raise funds by touting its success and linking it with the token.[79]

Apart from the above-mentioned contentions, the following are the major arguments of Ripple –

1. Decentralised nature of XRPL

Ripple claims that XRPL is an independent entity[80] and is decentralised[81] in nature. It relies on William Hinman's (SEC's former director) speech wherein he said that decentralised blockchain-based cryptocurrencies will not fall under the category of security.[82] Purchasers of tokens of sufficiently decentralised blockchain do not reasonably expect a group of people to carry out the managerial and entrepreneurial functions. Also, since the network is decentralised, it will leave disclosures by and about the main company/ group unnecessary and redundant. This is because the network will become an independent entity in itself. This

[74]*Securities and Exchange Commission V. RIPPLE LABS, INC*., Bradley Garlinghouse,: and Christian A. Larsen, 20 Civ. 10832, ECF Case preliminary statement, para 8
[75]Manaya Bagga, Investor *files lawsuit against Ripple on 'never ending ICO*, INSHORTS, May 05 2018, https://inshorts.com/en/news/investor-files-lawsuit-against-ripple-on-never-ending-ico-1525520765608, Last visited 16 June, 2022
[76]Team Ripple, *XRP Now on 50 Exchanges Worldwide*, RIPPLE, December 21 2018, https://ripple.com/insights/xrp-now--on-50-exchanges-worldwide/, Last visited 21 June, 2022
[77]Securities and Exchange Commission, *Report of Investigation Pursuant to Section 21(a) of the Securities Exchange Act of 1934*, Release No. 81207, Para 8
[78] Team Ripple, *The Difference Between Ripple and XRP*, RIPPLE, July 9, 2018, https://ripple.com/insights/difference-ripple-xrp/, Last visited 21 June, 2022
[79]The Motley Fool, *themotleyfool,* 26 Nov 2017, https://twitter.com/themotleyfool/status/934850515640471553> Last visited 12 June, 2022.
[80]Team Ripple, *The Difference Between Ripple and XRP*, RIPPLE, July 9, 2018, https://ripple.com/insights/difference-ripple-xrp/, Last visited 21 June, 2022
[81]*Your Questions About XRPL, Answered*, https://xrpl.org/faq.html, Last visited 18 June, 2022
[82] William Hinman, *Digital Asset Transactions: When Howey Met Gary (Plastic)*, sec.gov, June 14 2018, https://www.sec.gov/news/speech/speech-hinman-061418,Last visited 10 June, 2022

issue of decentralisation was explained in the earlier section which dealt with the governance of XRPL. Since decentralisation of XRPL itself is disputed, one cannot certainly conclude whether XRP falls under the parameter that Hinman had mentioned.

2. XRP is a currency

In order to be classified as a digital currency, it is quintessential that it satisfies the two fundamental principles of a currency, which are laid down in the US framework for Digital Assets.[83] -

> i. The token can be used to pay for goods and services without having to convert it to other cryptocurrencies or fiat currencies.

Currently, XRP can be used like any other digital currency, either for transactions or as a potential investment. It is even possible to use the Ripple network to process other types of transactions, like exchanging currencies, however, it can also be used in xCurrent and xRapidwhich are Ripple's products.[84] One cannot utilize XRP to buy any goods or services directly using the current system.[85] Therefore, XRP fails to satisfy the first condition.

> ii. The token operates as a store of value that can be saved, retrieved, and exchanged for something of value at a later time

A store of value is an asset, currency, or commodity that maintains its value over a long period. If an item can be held and converted into money in the future without a decrease in value, it is considered a good store of value.[86] XRP being a cryptocurrency, is highly volatile in nature. This can be understood by its price action, the token's price increased 32,943% in 2017 whereas its price decreased by 82% in 2018.[87] This severely affects XRP's potential to be considered a store of value.

[83]*Framework for "Investment Contract" Analysis of Digital Assets*, www.sec.gov/, April 3 2019, https://www.sec.gov/corpfin/framework-investment-contract-analysis-digital-assets> Last visited 10 June, 2022
[84]Rakseh Sharma, *What Is The Role Of XRP In Ripple's Products?*,investopedia.com, September 23 2021, https://www.investopedia.com/news/what-role-xrp-ripples-products/,Last visited 15 June, 2022
[85]*XRP*, coingate.com, https://coingate.com/xrp,Last visited 25 June, 2022
[86] Lucas Downey, *Store Of Value*, INVESTOPEDIA, August 252022, https://www.investopedia.com/terms/s/storeofvalue.asp#:~:text=Key%20Takeaways,shelf%20lives%20are%20essentially%20perpetual,Last visited 5 June, 2021
[87]Valdrin Tahiri, *XRP Historical Yearly Price Movement Overview*, BEINCRYPTO, May 11 2021, https://beincrypto.com/xrp-historical-yearly-price-movement-overview/, Last visited 17 June, 2022

Hence, XRP is most likely to fail both the parameters to be considered as a currency. Further, SEC does not consider it as a currency because it is not issued by any recognised Government.[88] Even though Ripple has already been registered as a 'virtual currency' at the New York State Department of Finance[89], it still may come under the ambit of securities law according to the report of Financial Crimes Enforcement Network (FinCEN).[90]

3. Fair notice

Ripple has invoked the defense of 'fair notice' which, according to the US Constitution, means that the statute should clearly lay out what is a criminal offence and what is not.[91] The company alleges that the wording of Section 5 of the Securities Act, 1930 is vague. Further, it also blamed SEC for not informing it about the alleged illegality of the sale of XRP. This is a strong defence because the Commission has been investigating Ripple since 2018 and still did not prohibit its token sale. SEC charged Ripple after 8 years of its creation and after 5 years of its characterization as virtual currency by DOJ and FinCen.[92] The Commission had ample opportunity to simply intimate the company and ask it to take necessary steps. Moreover, the court itself has struck down SEC's objection to the defence of fair notice.[93] This means that the SEC most probably will not have it their way because of its negligence to take necessary action when required.

VIII. Indian Perspective

The Supreme Court of India struck down[94] the order[95] of RBI wherein it prevented banks from providing services for purchasing cryptocurrency. Since then, Indian crypto investors

[88] *Securities and Exchange Commission V. RIPPLE LABS, INC*., Bradley Garlinghouse, Christian A. Larsen, 20 Civ. 10832, ECF Case, para 54
[89] *Securities and Exchange Commission V. RIPPLE LABS, INC*., Bradley Garlinghouse, Christian A. Larsen, 20 Civ. 10832, ECF Case, para 19
[90] Financial Crimes Enforcement Network, *Application of FinCEN's Regulations to Certain Business Models Involving Convertible Virtual Currencies,* FIN-2019-G001 Last visited 13 June, 2022
[91] Kara Kapp, *The 'Ripple' effect: a striking development on defending digital asset securities litigation*, reuters.com, https://beincrypto.com/xrp-historical-yearly-price-movement-overview/,Last visited 17 June, 2022
[92]Securities and Exchange Commission v. RIPPLE LABS.INC, Bradley Garlinghouse, and Christian A. Larsen. para 4 of preliminary statement
[93]Kara Kapp, *The 'Ripple' effect: a striking development on defending digital asset securities litigation*, reuters.com, https://beincrypto.com/xrp-historical-yearly-price-movement-overview/, Last visited 17 June, 2022
[94]Internet and Mobile Association of India v. Reserve Bank of India, W.P No.528 of 2018
[95] Reserve Bank of India, Prohibition on dealing in Virtual Currencies (VCs), RBI/2017-18/154 DBR.No.BP.BC.104 /08.13.102/2017-18

have increased multifold.[96] This led the Government to levy 30% tax on any income from the transfer of virtual digital assets which includes cryptocurrencies.[97] But the Government does not have any regulations in place to protect the interests of the investors.

Amidst uncertainty regarding the regulation of cryptocurrencies, the government has proposed a bill for a complete ban on Private Cryptos.[98] In this section, we will be analysing the nature of XRP under existing laws.

Section 2(4)[99] of The Securities Contracts (Regulation) Act, 1956, defines securities as "*shares, scrips, stocks, bonds, debentures, debenture stock or other marketable securities of a like nature in or of any incorporated company or other body corporate*". XRP can fall into the category of 'other marketable securities' because XRP was created and distributed by Ripple which is an incorporated company. Other marketable securities are inclusive and expansive[100]in nature. An important factor for such categorisation is the marketability of the asset. Supreme Court in *Sahara India Real Estate Corporation Limited vs Securities and Exchange Board of India*[101] stated that marketability means that the security is freely transferable. In this case, XRP is freely transferable, hence it is marketable. But since XRP's decentralisation has not been ascertained, one cannot conclude that it comes under the definition of securities under Indian law.

When talking about currency, the Reserve Bank of India had notified "*debit cards, ATM cards or any other instrument by whatever name called that can be used to create a financial liability, as 'currency'* "[102] XRP presently provides liquidity to banks for international payments and can be used to make a payment to another person, just like any token. Considering this, one must also note that it will never be considered a legal tender so its utility as a currency is diminished.[103] Further, it should be noted that currencies are

[96] '*Crypto ownership in India*', triple-a.io, https://triple-a.io/crypto-ownership-india/#:~:text=How%20many%20crypto%20owners%20in,studies%20including%20Statista%20and%20Hootsuite> accessed 16 June, 2022
[97] Finance Ministry of India, *Finance Bill, 2022*, Bill No. 18 of 2022
[98] Lok Sabha of India, Amendments in the Fifth Schedule to the rules of Procedure and Conduct of Business in Lok Sabha, No. 3293 - 3304
[99] Government of India, *Securities Contracts (Regulation) Act*, 1956 [42 of 1956]
[100]Shantilal Mehta v. Central Bureau of Investigation (2009).
[101] Sahara India Real Estate Corporation Limited V. Securities and Exchange Board of India C.A. No. 9813 of 2011 and C.A. No. 9833 of 2011
[102] Reserve Bank of India, Indian Currency-Frequently asked Questions, 17 May, 2022
[103] Cryptocurrency will never be a legal tender, tribuneindia.com, 4 Feb 2022, https://www.tribuneindia.com/news/business/cryptocurrency-will-never-be-a-legal-tender-says-finance-secretary-366931#:~:text=India%20will%20not%20be%20making,made%20crypto%20a%20legal%20tender> Last visited 11 June, 2022

recognised due to their stability, since XRP is volatile in nature, it would be far-fetched to consider it as a currency in Indian context.

IX. Conclusion

XRP is most likely to be considered a security under American law only if it is held that Ripple exercises control over the token and its network. Further, it is highly unlikely that XRP will be considered as currency. Lastly, SEC's late action and Ripple's fair notice defence gives this case a different angle which may change the court's view of Ripple's actions. So, one can say that this case's decision will be considered a guiding light for understanding the nature of various tokens in the future.

It will be important for the regulators in India to keep a watch on the court's stance on this case. The Indian government should consider having a flexible framework similar to the SEC's non-binding framework which can be used as a guiding light to ascertain the nature of any token.

A Review of The ASCI Guidelines on Social Media Influencer Advertising

Julia Anna Joseph*

Abstract

Social media influencers have always posted paid promotion content of goods and services which reward them with a hefty sum of money. Such promotion is one of the fastest growing sectors in advertising, where the global market size rose from $1.7 billion in 2019 to $2.3 billion in 2020.[1] However, ads in this domain often exploit the viewers by not giving sufficient information about the post being a sponsored ad. Viewers of such content believe it to be an honest review of such promoted brands. This leads to a mass purchase of the promoted goods and services which[2] often lands consumers in a deceived position. While people buy these items with honest beliefs of a trustworthy brand review, little do they know that they are falling for an advertisement.

After the introduction of the Consumer Protection Act, 2019, with deeper regulation of consumer protection in e-commerce, misleading or false ads by influencers were possible to be included in the 'unfair trade practice' bracket, thereby imposing penalties on them.[3] However, this required certain directions that could be followed by influencers so as to effectively avoid any 'misleading advertisements'. Thus, the Advertising Standards Council of India (ASCI) published a set of guidelines to be followed in this regard which are applicable to social media influencers.

The introduction of such guidelines is the first of its kind. Several provisions such as those regarding due diligence and conspicuous display of labels are now part of a checklist of paid promotion, which attaches increased responsibility on influencers. In light of the same, this paper shall evaluate whether the guidelines are sufficient in effectuating the required level of accountability from influencers in the context of paid promotion on social media, and if not, what changes could be made.

Keywords: Social media, paid promotion, influencer advertising, ASCI guidelines, Instagram.

*Julia Anna Joseph, 4th Year, BBA LL.B(H), School of Law, Christ (Deemed to be University), julia.joseph@law.christuniveristy.in

[1] *Global Instagram influencer market size from 2017 to 2020*,STATISTA, (Sep. 24 2021) https://www.statista.com/statistics/748630/global-instagram-influencer-market-value/

[2]

[3] Consumer Protection Act, 2019 No. 35 of 2019, §2, cl. 47.

I. Introduction

India is home to 448 million active social media users as of 2021.[4]Today, smartphones are the new television and social media platforms are the channels. These channels are bursting with content hosted by social media influencers. They include entertainment, news, activism and advertisements. Advertisements are these influencers' main source of revenue from these platforms. It has been ever so popular because, when a much celebrated face endorses a product, it is hard to ignore. This is evidenced by the case of CoinDCX and CoinSwitch Kuber cryptocurrency platforms that saw a 730% jump in its user base within 10 months of celebrities such as Ranveer Singh and Amitabh Bachchan becoming their brand ambassadors.[5] An ASCI study in fact found out that 7 out of 10 people show trust in ads posted by influencers.[6]

Thus far in India, there was a lack of directives in relation to influencer advertising and influencers operated in an unorganized sector with respect to paid advertisements. With the onset of a global pandemic that demanded people to stay locked up at their homes, the viewership of online content and usage of social media has been at a substantial increase, and so is the reach of influencer accounts on social media. With a host of different posts that these influencers post every day or so, who is to predict what is an honest post and what isn't? The blurring lines between the two really raises doubts and concerns in the minds of followers.

Social media users desire some transparency in the promotion business so that they can make autonomous decisions for themselves. While social media platforms such as Instagram and Facebook have a policy of their own regarding disclosure promotion, as a country, India does not have a legislation that binds influencers to make honest ads. The present guidelines too, are not issued by a statutory government body and hence, organizations can perhaps take a passive approach towards these guidelines. The best way to look at it however, is as a pivotal step towards enacting a definite legislation in this regard sometime in the near future.

[4]*Digital 2021*, WE ARE SOCIAL(Sept. 21, 2021), https://wearesocial.com/digital-2021.
[5] Paytm's giant anchor round; alarm over crypto ads (Nov. 4, 2021), https://m.economictimes.com/tech/newsletters/morning-dispatch/paytms-giant-anchor-round-alarm-over-crypto-ads/articleshow/87518961.cms.
[6] Trust in Advertising, A study by ASCI at, https://ascionline.in/images/pdf/asci-study-trust-in-advertising.pdf.

In light of the same, this paper analyses the recently released 'ASCI Guidelines on Social Media Influencer Advertising 'and highlights its benefits and drawbacks in-depth, while suggesting possible beneficial changes to certain inadequacies present in the existing guidelines. The piece will present a wholesome view of the guidelines by first, describing the international aspects of influencer guidelines in relation to Indian standards, then laying down in brief the important aspects of the guidelines, after which the concerning issues on the side of influencers are discussed, and finally the unaddressed aspects in the guidelines along with suggestions for an improved framework are laid down.

II. International Aspect

As for India, it is quite late to be starting on this front. Influencer advertising in social media has been prevalent for over half a decade. Several countries across the world have developed stringent rules for regulating influencer marketing in the social media domain. In the United Kingdom, a committee named Committee of Advertising Practice (CAP) has a CAP Code that specifies rules for ad disclosure. Any person who has a grievance can file a complaint with the Advertising Standards Authority (ASA) which will check the veracity of the complaint in relation to the CAP Code.[7] In the United States, the Federal Trade Commission (FTC) oversees influencer marketing through rules that aim to curb deceptive advertising. In 2019, the FTC released 'Disclosures 101 for Social Media Influencers' (the 'Guide') to instruct brands and influencers alike on the correct way to go about endorsing products/services through social media.[8] China has the Chinese Advertising Law (CAL) which is a body of rules that regulates ads in the influencer sector along with other ad sectors. It was post 2015, that this body of legislation was reformed to include the term 'endorser'.[9]

III. ASCI Guidelines In Brief

The Advertising Standards Council of India (ASCI) guidelines have the dual objectives of protecting consumer interest as well as guiding the online community to become better responsible marketers and advertisers. These guidelines are issued by ASCI, a voluntary self-regulatory organization comprising members from marketing, creative, media, and allied companies in India. The guidelines are strong directions that make it obligatory for

[7] *Recognising Ads: Social Media and Influencer Marketing*, ADVERTISING STANDARDS AUTHORITY(Sept. 21, 2021), https://www.asa.org.uk/advice-online/recognising-ads-social-media.html.
[8] *Disclosures 101 For Social Media Influencers*, FEDERAL TRADE COMMISSION, (Sept. 21, 2021), https://www.ftc.gov/tips-advice/business-center/guidance/disclosures-101-social-media-influencers.
[9] *Dealing with social media influencers—China*, LEXISNEXIS, (Sept. 21, 2021) https://www.lexisnexis.co.uk/legal/guidance/dealing-with-social-media-influencers-china.

influencers to follow certain rules while posting sponsored promotional content, making influencers more responsible for their actions. These final guidelines came into effect on 14 June 2021. They consist of three parts- context of the guidelines, definition clauses, and guidelines.

There are broadly two guidelines- disclosure and due diligence. As per the disclosure guidelines, a disclosure label which is upfront and prominent is required to be added to every influencer's ad,[10] from a given set of approved labels which include ad, promo, collab, sponsorship, employee, free gift, advertisement and partnership.[11] The guidelines clearly state that for it to be effective in a particular post, there needs to be a link between the ad and the influencer which could take the form of not just cash, but also free goods, services, awards, media barters etc.[12] This is a very wide and required approach because consideration comes in varied forms. The label to be displayed has to be done within the first two lines of writing in English or whichever is the language of the ad. When the ad is a picture, the label is to be superimposed over it, but in case of a video it has to be displayed in different ways depending on the duration.[13] If it is for less than fifteen seconds, a three second display is the minimum.[14] If it is within fifteen seconds and two minutes, it should be displayed for one-third of the time[15] and if it's beyond two minutes, the display shall be for the entire period[16]. In case of a live-streaming ad, at the end of each minute for five seconds, the label shall be shown.[17] In case of an audio, the label shall be announced at the start and end of the audio.[18] Additionally, any claims made by these influencers in the ads, will have to be justified by them and cannot be mere lies. These guidelines also recognize virtual influencers who are fictional computer-generated characters, but can publish posts like any other influencer. These accounts are required to disclose that they have not interacted with any real human being while publishing such a promotion.[19]

As a matter of control, the Council has employed a French technology Reach Influence Cloud Platform which uses artificial intelligence that will detect an absence of disclosure in posts of

[10] ASCI Guidelines for Influencer Advertising in Digital Media, Guideline 1.2.
[11] ASCI Guidelines for Influencer Advertising in Digital Media, Guideline 1.3.
[12] ASCI Guidelines for Influencer Advertising in Digital Media, Guideline 1.1 a.
[13] ASCI Guidelines for Influencer Advertising in Digital Media, Guideline 1.2 e.
[14] ASCI Guidelines for Influencer Advertising in Digital Media, Guideline 1.2 e I.
[15] ASCI Guidelines for Influencer Advertising in Digital Media, Guideline 1.2 e II.
[16] ASCI Guidelines for Influencer Advertising in Digital Media, Guideline 1.2 e III.
[17] ASCI Guidelines for Influencer Advertising in Digital Media, Guideline 1.2 f.
[18] ASCI Guidelines for Influencer Advertising in Digital Media, Guideline 1.2 g.
[19] ASCI Guidelines for Influencer Advertising in Digital Media, Guideline 1.4.

a commercial nature.[20]If the influencers are found violating the guidelines, they shall receive a mail from ASCI requesting suggested changes, which may be contested by influencers with reasons.[21]There is no fine or penalty involved as ASCI believes in creating a self-regulated environment.[22]

As for the guidelines of due diligence, the influencers are advised to review and satisfy themselves of the veracity of the claims made by the advertiser.[23]

IV. Benefits of The Guidelines

These guidelines will be helpful to both social media users and influencers for a number of noteworthy reasons.

1. Ease of weighing the degree of truth

First of all, by knowing that a post is paid content, a viewer can anticipate the degree of truth in it and venture into doing some research about the endorsed brand for his/her benefit before making a purchase. There wouldn't be any scope for blind belief in the qualities of the product.

2. Responsibility on influencers

Social media influencers can be brought under some control wherein they are restricted from making tall, fancy and tempting claims for products just so that they look impressive on their feed or to do justice to the money they have received. They will now be careful about the brands that they choose to collaborate with and this will increase the trust between influencers and their followers. The Guidelines state that celebrities are mandated to perform due diligence on their part before advertising.[24] This clarifies the position to be adopted in an incident like that of Pierce Brosnan who claimed that the company did not warn him of the product's hazardous nature when admonished by the Delhi High Court for appearing in a surrogate advertisement of Pan Bahar, a pan masala brand.

Celebrities may directly or through an agent, approach ASCI to learn if any part of a potential advertisement violates the guidelines, in which case due diligence will be considered as performed. Therefore, exercising greater caution is beneficial to both influencers and followers of their accounts.

---

[20]*ASCI guidelines make it mandatory for influencers to label all kinds of promotional content, whether monetary or not,* BUSINESS INSIDER (May. 27, 2021, 4:41 PM), https://www.businessinsider.in/advertising/brands/article/asci-guidelines-make-it-mandatory-for-influencers-to-label-all-kinds-of-promotional-content-whether-monetary-or-not/articleshow/83003066.cms.

[21]*Asci's Guide For Social Media Influencers*, THE ADVERTISING STANDARDS COUNCIL OF INDIA(Sept. 21, 2021), https://asci.social/assets/files/ASCIs%20Guide%20For%20Influencers.pdf.

[22]ASCI Guidelines for Influencer Advertising in Digital Media, Guideline 1.2.

[23] ASCI Guidelines for Influencer Advertising in Digital Media, Guideline 2.

[24] ASCI Guidelines for Influencer Advertising in Digital Media, Guideline 2.

3. Reducing uninformed decisions by minors

Making display of labels explicit can help reduce rash decision-making and vociferous consumerism by the more vulnerable population of children between 13 and 18 years of age who also use social media lawfully. Children are the ones who easily fall prey to these promotions as they do not have sufficient awareness or knowledge to distinguish planned sponsored content from genuine reviews.

4. Differentiation between honest reviews and paid promotion

It also helps influencers by giving them an opportunity to post genuine and honest reviews about tried and tested products (without any collaboration), without the label of an ad, thereby attracting more viewers for those kinds of content. It should not however, be thought of as a competition to collaborated content because paid content is also meant to be reliable.

5. Negative reviews

Guideline 1.1 c. states that disclosures are mandatory even if the review is unbiased (like it must be), clearly indicating that disclosures are required even in case of negative reviews., as long as there exists a 'material connection'.[25] This will ensure that negative reviews posted by influencers are not sponsored by some brands to purposefully tarnish the image of a rival brand.

V. Anticipated Issues By Influencers

Several influencers have confronted these guidelines with dismay as they believe that henceforth, followers of their accounts will not believe in the genuineness of the content that they post and may easily scroll past them without giving any attention. However, this claim seems invalid because common people follow influencers because they respect and place trust on the content of such people. Influencers who have built enough followers can be assured of the fact that their followers consider them to be loyal. In that case, it would be hard to imagine that social media users will casually scroll past their adored celebrity's promotion post. Some influencers also believe that these guidelines are counterproductive to the idea of influencer marketing as they will now create an invisible distance between the promoters and potential consumers, making it as old-school as traditional television advertisements. It is true that influencer marketing has gained popularity because of its ability to easily appeal to people's emotions. However, whether or not a presence of an ad label can affect the audience's attachment to the ad will depend on the ad itself. Influencers might have

[25] ASCI Guidelines for Influencer Advertising in Digital Media, Guideline 1.1 c.

to take increased efforts to make ads that are more creative and attractive. Every now and then, social media celebrates brand advertisements posted by brands themselves for their ability to build consumer confidence, Bhima being the latest example. If such mainstream ads stand a fair chance, then so do influencer-promoted content even with all the disclosures. Despite some influencers raising such issues, it is noticed that an overwhelming share of them have always been in favour of these guidelines,[26] which indicates that the influencer community is largely an honest space and will continue to remain so, save for the smaller proportion that defrauded the followers.

VI. Unaddressed Aspects

The million-dollar question to confront here is, are these guidelines going to be the one-stop-shop that solves all the current influencer marketing problems in India? These guidelines have left certain unaddressed aspects of influencer marketing with respect to social media that need immediate attention.

1. Responsibility of child influencers

The guidelines are not clear on whether accounts of child influencers which are managed by adults will be liable for not following these guidelines while posting collaborated content. ASCI will have to clarify whether the accounts will be treated as that of the child's or the account manager for the purpose of enforcing the guidelines. Laws that govern this remote aspect is not a fairly visible sight in most countries of the world. In 2020, France had passed a law exclusively for regulation of child influencers.[27] While this law regulates the managing of revenue of influencers, it does not address any points of legal responsibility in the process. Children are not made to handle their own finances; they are under authorization of government, and they are in fact given a right to be forgotten. All of these offers great protection to children from potential risks. But even such a recent law failed to recognize legal responsibility in case of posting undisclosed paid endorsements. Globally, the scenario is quite the same where not many countries have concrete rules that lay down responsibility of child influencer accounts. Most legislations focus on protecting child influencers from exploitation in work, but do not look beyond.

[26]Akash Verma, *Social media influencers will now have to add labels for paid content, new guidelines out*, INDIA TODAY(May 30, 2021, 10:40 AM), https://www.indiatoday.in/technology/news/story/social-media-influencers-will-now-have-to-add-labels-for-paid-content-new-guidelines-out-1808592-2021-05-30.

[27]*France: Parliament Adopts Law to Protect Child "Influencers" on Social Media*, LIBRARY OF CONGRESS, (21 Sept., 2021) https://www.loc.gov/item/global-legal-monitor/2020-10-30/france-parliament-adopts-law-to-protect-child-influencers-on-social-media/.

2. Prohibited content not clarified

There is no mention of any items that are prohibited for promotion by these influencers under the guidelines. For instance, products such as prescription-required medicines, harmful substances like alcohol and cigarettes, or even illegal products and services. Particularly during a pandemic, when influencers have been known to overstep boundaries by promoting immunity boosting medicines, having a guideline in place to distinguish promotable and non-promotable goods might help avoid serious concerns.

VII. Suggestions

Reviewing the guidelines under a lens of practical scrutiny, the following suggestions are put forth as a means to reduce information asymmetry between consumers and influencers, as well as to improve consumer protection and expectations from ad publishers.

1. Disclosure label necessarily to be in the language of post

Presently the guidelines only require a disclosure label in either one of English or the regional language in which the ad is published. However, it would be more sensible if the label to be displayed was compulsorily supposed to be in the regional language in which the ad is published, so that those who have limited understanding capacity in English, can be benefitted while viewing the ad of that particular language.

2. Lay down extent of liability

The present guidelines do not mention the extent of liability or penalty for not complying with the rules. Framing the same would ensure better compliance with the guidelines as it will send across a stricter tone of alert to those who ought to follow it. Although the aim of ASCI is to create a culture of responsible self-regulation, that might work only with popular influencers who fear damage to reputation, and not with micro influencers who do not have much to lose.

3. Enforceable mechanism for grievance redressal

The inclusion of a grievance redressal mechanism within the guidelines that can enforce recommendations would be beneficial. Presently, under the Code of Self-Regulation of ASCI, the ASCI can be approached to file complaints by the public, corporates, consumer groups or even a *suo moto* action can be taken by ASCI. While the Consumer Complaints Council exists to adjudicate on complaints received, the directions given by it cannot be enforced upon the influencer. This would only make the existing complaints-handling mechanism purposeless. Therefore, having a redressal mechanism with powers of enforceability under

these guidelines will be an appropriate forum for common social media users to approach with a concern against an influencer.

4. A space for human error

The guidelines could allow a time frame within which taking down of such an ad would be permissible, it would be more influencer-friendly. This is because it is natural to make errors in publishing content online. Especially when influencers are persons who post content frequently, there could be some non-intentional errors due to which they might take the post down within a few seconds or a minute of posting, where it does not cause grave harm to anyone. It is not in anyone's interest to unnecessarily file complaints against influencers for a relatively harmless online mishap. Therefore, ASCI can consider keeping a window of 0 to 60 seconds time period within which, taking down of the ad without the label may not be an offence. This window can be different for different ads depending on the duration of the ad.

5. A degree of control rule

A rule based on the degree of control over the endorser's content has to be established. If the brand that pays the influencer has a high control over the content that is displayed as the ad, i.e., in cases where ads reveal false claims that were paid to be delivered exactly so, then the brands will also have to be held accountable for such advertisement. This will ensure that both influencers and brands are careful about the claims that they pose before users of social media. In those instances where brands have paid the influencer only for a positive review but without any specific unrealistic claims to be made public, it would make sense to hold only the influencer liable.

VIII. Conclusion

The ASCI guidelines with respect to social media influencers are indeed necessary for today's rapidly expanding social media usage in India. These guidelines are a good step in the way to regulating influencer ads on popular platforms like YouTube, Instagram, and Facebook. It will help social media users to take an informed decision on the purchase of the goods and services of brands that are endorsed on these platforms. It will also make influencers more responsible and socially committed, which in turn means that only the most deserving and qualitative brands stay in the market. It will help restore social media's user-friendliness as well.

As far as statistics state, about 400-500 complaints were lodged during the brief period of the guidelines' operation in 2021 alone, and most A-list influencers were quick to follow the

Guidelines.[28] This indicates a positive response to the Guidelines. However, certain crucial aspects with regard to the guidelines need to be addressed immediately, so that these guidelines do not fall short of the expected level of control or create unnecessary procedural ambiguities.

[28] M Sharma, *How ASCI rebooted itself in 2021 to fit in a digital-first world* EXCHANGE4MEDIA (Dec. 9, 2021), https://www.exchange4media.com/advertising-news/how-asci-rebooted-itself-to-fit-in-a-digital-first-world-117252.html.