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This journal welcomes publications from law students, professionals, academicians for academic research and study in the field of Intellectual property and the assets produced by it. Academic research is the medium of fostering understanding of the latest contemporary developments in the field.

In today’s world where the generation of data in the online world is so abundant it becomes essential to protect the originality of the content and grant due credits to the creator of that content which can only be possible through Intellectual Property Rights. The main goal behind the publication of this journal is to promote creativity and innovation among people. Human minds have been the source of intellectual property since years but now emerges an urgent need for a designated protection of work created on digital platforms like Meta verse or Artificial Intelligence.

All the papers have been peer reviewed, and similarities checked. The editors and reviewers have tried their best to allow the best possible papers before the readers. The comments, criticism, and advice of the readers are most welcome for further improvement. Hence this half- yearly E-Journal (JAIRIPA) is hereby submitted with all humility before the readers.

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**NAVIGATING THE FRONTIER: BALANCING PERSONALITY RIGHTS,
PRIVACY, AND INTELLECTUAL PROPERTY IN THE AGE OF DEEPFAKE
TECHNOLOGY**

Aranya Nath¹ & Gautami Chakravarty²

Abstract

The advent of Artificial Intelligence and Big Data has led to advancements in technology, but it is crucial to understand the challenges and privacy concerns that come with these technologies. In India, legal experts are working to address privacy issues caused by Deep Fake Technology. The authors aim to discuss the regulatory framework to address these issues, focusing on the ethical implications of deepfake technology in media and entertainment. They propose that criminal provisions in copyright legislation, such as 65(A) & (B), do not adequately address the challenges posed by AI. They also propose a holistic view of performers' rights reform, providing legal precedents. The paper also discusses the ethical implications of deepfake technology in media and entertainment and suggests new legislation that integrates innovation with individual rights protection. It also discusses technical improvements in deepfake detection and prevention and how these technologies can be integrated into legal and intellectual property protection measures.

Keywords: Copyright Law, Performer's Rights, Rome Convention, Deepfake Technology, Privacy Rights, Personality Rights.

¹ Ph.D Scholar, Damodaram Sanjivayya National Law University, Sabbavaram Visakhapatnam.

² LLM (IPR Specialization) National Law University Judicial Academy Assam.

Introduction

Deepfake technology has posed significant issues and potential in a variety of fields, notably in the realms of personality rights, privacy, and intellectual property (IP). Deepfakes, which use powerful artificial intelligence to produce very realistic but manipulated audio and visual content, have swiftly progressed, becoming more accessible and complex. This technological breakthrough raises serious concerns about how the boundaries of individual rights and intellectual property are being challenged and potentially violated. Therefore, It is challenging to identify the true and morphed image as the public generally believes what they see in their own eyes. As a result, women became victimized early in online media but nowadays after the broad emergence of Artificial Intelligence & Big Data it became more prevalent as a result Deepfake Technology become much more prevalent in today's reality. Even Legal Scholars & IP policymakers are researching to find legislation that could help the victim & control Deepfake Technology. It is an outcome of Artificial intelligence linked with cloud computing and Big Data.³

Personality rights, which include the protection of an individual's name, likeness, and persona, are increasingly under attack as deepfakes make it feasible to construct convincing representations of people without their knowledge. Unauthorized use of one's likeness for commercial or libelous reasons carries considerable concerns, testing current legal structures that were not prepared to deal with such sophisticated types of digital manipulation. As deepfake technology enables the fabrication of incredibly realistic but fraudulent pictures and videos, the potential for abuse, such as fake endorsements, identity theft, and reputational damage, has never been higher. Deepfake technology also has a significant impact on privacy. The capacity to create realistic material can result in serious violations against individual privacy, such as nonconsensual pornography and fabricated accusations⁴. These assaults not only violate human liberty, but they also offer problems to present privacy rules, which may fail to handle the intricacies of deepfake-related privacy breaches. The need for enhanced legal protections that can successfully address these new types of privacy intrusions is urgent. The study is conducted to create a significant inception among the readers to understand the conundrums of deep fake technology that arises in today's tech-based era owing to the advent of AI. Copyright law is driving significant legislation in curbing the deepfake technology as there is an absence of legislation that looks into the personality rights of the performers even though punitive punishments are there in the copyright law and its function will be discussed here. The research paper is formulated with doctrinal and analytical. The researchers will try to

³ Artificial intelligence and intellectual property: call for views, GOV.UK (2020), <https://www.gov.uk/government/consultations/artificial-intelligence-and-intellectual-property-call-for-views> (last visited Nov 23, 2023).

⁴ Yisroel Mirsky & Wenke Lee, *The Creation and Detection of Deepfakes: A Survey*, 54 ACM COMPUT. SURV. 1 (2022).

analyze the concept of deep fake technology and how copyright law supports the ongoing burning issue. Lastly, data was collected through various journals, periodicals, websites, etc.

Deepfakes technology overview

Artificial intelligence (AI) programs that merge mix, replace, and superimpose photos and video clips to create fake videos that look real are known as deep fakes. In 2014, Ian good fellow made it. Even without the user's consent or permission, they could use deepfake technology to create, for instance, a humorous, pornographic, or controversial film of a person speaking. As users tend to stick with the group, deepfakes target social media platforms where conspiracies, rumors, and false information may spread quickly.⁵

The creation of deep-fake technology

Generative adversarial networks (Gans) are a machine learning approach used to construct deep fakes. A Gans is made up of two neural networks that have been trained on a significant number of actual photos, videos, or audio recordings: a system for discrimination and a generator. The machine learning system, similar to the generated image, develops artificial data that reproduces what is present in the training collection. Following that, the network of discriminators analyses the authenticity of artificial information and provides feedback to the generation on ways it enhances what it produces. The procedure is carried out several times while the generator develops fake content that is extraordinarily genuine. It's challenging to distinguish from actual data. During such duration, the discriminator and generator acquire knowledge about one another. The training information is used to generate deep fakes, which may be used to make video and image deep fakes in several methods:

Face swap: changing the face of one individual for the one in the video;

Attribute editing: changing attributes of the individual in the video, such as hairstyle or color;

Face re-enactment: transferring facial reactions from a single face onto the person in the target video; and

A completely synthetic material: real material is utilized to learn how individuals seem, but the final representation is purely fake.

Deepfakes detection

Deepfake Technology keeps developing and improving, consequently, deepfake detection algorithms must be updated regularly to stay up with the current advances. Currently, the most effective way to tell if a piece of media is a deepfake is to utilize a combination of various detection techniques and to be wary of anything that seems too tempting to be true. The following is some of the most prevalent methods for

⁵ Hrishya Yagnik, Akshit Kurani & Prakruti Joshi, *A Brief Study on Deepfakes*, 07 5 (2020).

detecting deepfakes:

1. Graphical artifacts: some deepfakes include evident graphical objects, such as strange facial expressions or blinked eyes taken advantage of to detect forged footage.⁶
2. Misalignment of audio and video: with some deep fakes, the audio and visual content might not correspond precisely, suggesting that the information alters. For instance, an individual's lip motions in deep fake footage might not correspond to the audio exactly, or the audio might include background noise or reflections that don't exist within the video⁷ such kinds of audio-visual inconsistencies might indicate whether the subject matter alters.
3. Deep learning recognition: Deep Machine learning techniques, including deep neural networks, can be developed on an enormous collection of real and fake pictures, videos, or audio to detect deep fakes. Artificial information patterns and artifacts such as strange facial movements, inconsistent eye blinking causes, and audio-visual incompatibilities are learned by computer. Once trained, the deep learning system may examine previously unknown media for deepfakes. If the algorithm detects fake content, it can flag it for individual scrutiny or further evaluation.⁸

Deep Fakes, Copyright & Personality Rights

Deepfakes, which are classified into four usage categories, may help tiny start-up businesses with sales and marketing, comedy or parody, revenge porn, and political campaigns. A neighborhood boutique selling customized dresses, for example, may profit from a deep-fake application that enables buyers to try on the outfits, making purchasing decisions easier. Deepfakes may also be humorous or satirical, as evidenced in the viral “TikTok films of Tom Cruise licking a lollipop only to discover chewing gum in the center.” Thousands of forged votes emerged in Ohio in 2016,⁹ fueling fears among voters that elections had been manipulated. The image and identity of the individual who discovered the phony votes were proven to be a deepfake.

Revenge pornography consists of sexual representation photographs and films made public by an angry former partner, which can have major long-term negative consequences in one's personal and professional life. Women are exposed to deep-fake videos. It has been estimated by the report of UN SDG that more

⁶ Shruti Agarwal et al., *Protecting World Leaders Against Deep Fakes*.

⁷ Zhou and Lim - 2021 - Joint Audio-Visual Deepfake Detection.pdf, https://openaccess.thecvf.com/content/ICCV2021/papers/Zhou_Joint_Audio-Visual_Deepfake_Detection_ICCV_2021_paper.pdf (last visited Nov 24, 2023).

⁸ Agarwal et al., *supra* note 6.

⁹ Why the Manoj Tiwari deepfakes should have India deeply worried, <https://theprint.in/tech/why-the-manoj-tiwari-deepfakes-should-have-india-deeply-worried/372389/> (last visited Oct 21, 2022).

than 85% of women are subjected to such kinds of deep fake videos owing to gender biases.¹⁰

In the future, Ethical issues about deep fakes for revenge pornography and politics necessitate a reconsideration of whether deep fakes deserve to be granted stronger intellectual property protection. Deep fakes used to produce meaningful material, marketing & customization of social media posts in local dialects, for example, are inventive and imaginative, necessitating an increased balanced discussion of the subject.

The justification over Deepfakes raises questions about the control of free speech, since an outright ban can indicate controlling the freedom of speech, a practice contradictory to democracy, free expression, and trust. It poses three concerns:

- a) Are Deep Fakes legally covered by the copyright regime?
- b) How may exceptions and constraints help to balance the deepfake debate?
- c) Concerning the wake of deep fakes how the relationships between freedom of speech and IP protection, as specified in the Constitution of India should be balanced?

Protection of Certain Aspects of Personality Rights under IP Laws and Other Laws

“Article 21 of the Indian Constitution comes closest to maintaining personal rights in India. Subsequently, the legislation excludes the economic part of personality rights, Indian courts used to rely on provisions under copyright and trademark law to preserve certain aspects of personality rights.” Passing off has been used to safeguard personal rights in various circumstances. While present IP rules may appear acceptable, various features and complexities remain neglected, rendering them ineffective.¹¹ The courts have overlooked these realities and granted remedies, leaving just a few personality traits protected under the current intellectual property regime. In certain scenarios, courts have read personality rights safety as well-known trademark protection.

In “*D.M. Entertainment v. Baby Gift House*,¹² the case involving the financial implications of personality rights, wherein the court awarded relief by utilizing trademark law issues such as passing off and false endorsement. This case emphasizes the need to have a thorough awareness of the rights and intricacies underlying personality rights in India.”

¹⁰ Edvinas Meskys et al., *Regulating Deep Fakes: Legal and Ethical Considerations*, 15 JOURNAL OF INTELLECTUAL PROPERTY LAW & PRACTICE 24 (2020).

¹¹ Agitha T.G & N.S. Gopalakrishnan, *The Imperial Copyright Act 1911 and the Indian Copyright Law* 116 (2013).

¹² Daler.pdf, <https://spicyip.com/docs/Daler.pdf> (last visited Nov 24, 2023).

Existing Legal Instruments for the Protection of IP Rights

The court authorized an injunction for infringement of a registered mark in a well-known personality under trademark and passing off. This was because the plaintiff's caricature was covered under the preview of the goods offered, resulting in a violation of the registered mark. The exploitation of a well-known personality's unique identification trait also constitutes an act of unfair competition worthy of a passing-off claim. Unauthorized use of their distinctiveness also creates a deceitful impression that the plaintiff has licensed or has some relationship with the defendant's goods or services, akin to fraudulent endorsement.

In exceptional circumstances, the court may use copyright to protect personality rights, even if the Act does not explicitly specify the same. Certain provisions of the Copyright Act might be beneficial remedies against violation of personal rights. "Section 2(qq),¹³ for example, defines performer if personality is under the ambit of performer definition; Section 38, where performer right stated, prohibits the unauthorized promotion of one's performance. Section 57 also gives ethical protections in specific instances and prohibits the unauthorized promotion of one's performance. Section 57 also gives ethical protections in specific instances."¹⁴

In "*Titan Indus. Ltd. v. Ramkumar Jewellers*,¹⁵ the court attempted to address the plaintiff's entitlement to be the first creator of the work while considering the plaintiff's personality as a performer." Along with copyright, the court established elements constituting liability for infringement of the publicity right, with the first being validity, which requires the plaintiff to have an enforceable right in their persona or identity, and the second being identifiability, which requires the celebrity to be recognizable from the defendant's illegal usage. Infringement of the publicity right does not need proof of confusion or untruth if the personality is identified.

Finally, only celebrities have the right to be awarded personality protection based on the traits mentioned above.

Provisions under the Information Technology Act

The Information Technology Act, of 2000 first cyber law in India to regulate cyberspace has provisions dealing with cybercrimes. However, due to the non-comprehensive nature of coverage of cybercrimes under the IT Act, of 2000, the Act alone cannot regulate deepfakes. Some provisions of the IT Act that

¹³ copyrightrules1957.pdf, <https://copyright.gov.in/documents/copyrightrules1957.pdf> (last visited Nov 24, 2023).

¹⁴ Section 57 in The Copyright Act, 1957, <https://indiankanoon.org/doc/1710491/> (last visited Jun 14, 2024).

¹⁵ Titan Industries Ltd. vs M/S Ramkumar Jewellelrs on 26 April, 2012, <https://indiankanoon.org/doc/181125261/> (last visited Nov 24, 2023).

invoke to deal with deepfakes are explained below. “Under the IT Act, cybercrime is committed if deepfakes are used inappropriately or abused. Section 67 of the Act provides for penalties for the electronic publication or transmission of obscene material and if the deepfake created is inappropriate then it would attract this provision. Section 67A of the Act outlines the penalties for publishing or transmitting material in electronic form that contains a sexually explicit act or conduct and thus a deepfake that contains a sexually explicit act will attract penalties.¹⁶” Section 67B of the Act criminalizes the publication or transmission of material in electronic form that depicts children engaging in sexually explicit acts or conduct and will apply to deepfakes involving children. The deepfake maker shall be punishable for the offence, under the provided “Section 66C of the IT Act, 2000, if the deepfake content uses any kind of unique identification feature, such as electronic passwords, of a person in a fraudulent manner. It includes a foreign country's identity. In addition, section 66D of the Act penalizes usage of a computer to commit fraud through impersonation.” Under “Section 69A, the Central Government has the authority to direct the intermediary to block any such deepfake content if it determines that doing so is necessary for preserving the independence and territorial integrity of India, maintaining India's national security, and fostering cordial relations with other nations.” Apart from the computer-related offense, the IT Act punishes for privacy infringement. “Section 66E of the Act outlines the penalties for violating a person's right to privacy as follows: if the accused person intentionally or knowingly photographs, publishes, or transmits an image of a private area of another person without that person's consent, the accused person is subject to a sentence of imprisonment of up to three years or a fine of up to two lakh rupees, or both, depending on the severity of the offense. Another provision in the IT Act that deals exclusively with cyber defamation is Section 66A sending any information via a computer resource that is excessively offensive or has a menacing nature or is to create annoyance, discomfort, danger, obstruction, insult, injury, criminal intimidation, hostility, hatred, or ill will is punishable by this section. However, the Apex Court in “*Shreya Singhal v. Union of India*”¹⁷ nullified this section of the IT Act, making it obsolete. Thus, this provision holds no value in addressing deepfakes. The previous provisions were mainly to deal with deepfake makers. The IT Act also provides for the liabilities of intermediaries. Since intermediaries host deepfake content, Section 79 of the Act regulates their liability. After discovery or court order, the intermediary may remove the content. In *Myspace Inc. v Super Cassettes Industries Ltd.*,¹⁸ the Court ruled that intermediaries must remove copyright-infringing information upon private party complaints without a

¹⁶ Cyber Lawyer, *Section 67 of Information Technology Act: Punishment for Publishing or Transmitting Obscene Material in Electronic Form*, INFO. TECHNOLOGY LAW (Sep. 18, 2014), <https://www.itlaw.in/section-67-punishment-for-publishing-or-transmitting-obscene-material-in-electronic-form/> (last visited Nov 10, 2022).

¹⁷ *Shreya Singhal vs U.O.I* on 24 March 2015, <https://indiankanoon.org/doc/110813550/> (last visited Nov 4, 2022).

¹⁸ *My Space Inc. vs Super Cassettes Industries Ltd.* | wilmap, <https://wilmap.stanford.edu/entries/my-space-inc-vs-super-cassettes-industries-ltd> (last visited Jun 9, 2024).

Court order. Currently, intermediaries are only required to advise users about not posting certain kinds of harmful/unlawful content. Recent IT Rules 2021 establish a legal requirement for intermediaries to make reasonable efforts to prevent users from posting such content. The new clause will ensure that the intermediary's obligation is not a formality.

Copyright Regulations for Deepfake Technology

In the initial stage the most important concern is whether deep-faked works are protected by copyright law. Deep fakes may be highly creative and entail substantial technological creativity. Could such inventions then be considered copyrighted works? Two criteria must be satisfied to profit from copyright protection. Additionally, there has to be a work, which has to be original in terms of the fact that it is the author's intellectual creation. According to Article 2(1) of the Berne Convention, "literary and artistic works shall include 'every production in the literary, scientific and artistic domain' irrespective of its 'mode or form of expression.'¹⁹" Now it's important to understand the position of the United States & India so that the readers will get a significant inception why it's necessary to make stronger legislation for AI generative content we observe critics that have been expressed in the newspaper about the John-Doe order of Anil Kapoor deepfake case. In the US, copyright legislation deep fakes are regulated by copyright law in the United States. Yet is confusing since Deepfakes may be protected under the theory of fair use, as stated in 17 USC 107.²⁰ This section considers the purpose and character of usage, such as its commercial nature, the content of the work under copyright, the significance of copying, and its effect on the prospective market value of the copyrighted work. The concept of transformative use established in *Campbell v. Acuff-Rose*,²¹ permits the law of fair use to be extended to preserve the work when a new meaning or expression is discovered in a work, regardless of whether a significant amount of the work under copyright is reproduced. Deepfakes are also protected under the theory of fair dealing in many cases in the United States since the nature of the work is fundamentally distinct from the copyrighted work and the possibility of inflicting any harm to the potential market of the actual copyrighted work is extremely low. Other laws are utilized to impose responsibilities in situations where deep fake information is slanderous. Moral rights are the rights that preserve the creator's reputation and provide them the right to have their work assigned to them. Based on the legal status of each country, copyright

¹⁹ Berne Convention for the Protection of Literary and Artistic Works, <https://www.wipo.int/treaties/en/ip/berne/index.html> (last visited Dec 26, 2023).

²⁰ 17 U.S. Code § 107 - Limitations on exclusive rights: Fair use, LII / LEGAL INFORMATION INSTITUTE, <https://www.law.cornell.edu/uscode/text/17/107> (last visited Nov 24, 2023).

²¹ *Campbell v. Acuff-Rose Music, Inc.*, 510 U.S. 569 (1994), JUSTIA LAW, <https://supreme.justia.com/cases/federal/us/510/569/> (last visited Nov 24, 2023).

law might be utilized as a regulation for deep fakes. Copyright protection extended to cover deep fakes in some areas. As intellectual property intended to encourage innovation and stimulate future innovation, ownership of this specific copyright must be granted to any individual who uses generative adversarial network technologies to generate the deepfake material. For further understanding, the legal personality of artificial intelligence will analyze possessing rights and discharge responsibilities as the most crucial need for anybody with legal status. Because of the black box issue, one of the biggest challenges arising in the realm of AI is the conundrum within the concept of will. In this instance, it is not possible to conclude that the objective of intellectual property rights for people would be the same as artificial intelligence. As a result, it might be unwise to give copyright to the deepfake technique in and of itself. Computer programs are considered literary works in India, decided as required by Article 10 of the TRIPS Agreement.²² Computer software is deemed a literary work in the US under Section 17 USC 101 and is also considered a literary work under Sec 2(o) in India. Policy concerns and debates must be addressed owing to the advent of deep fake technology within the scope of literary works. In this perspective, granting copyright to the individual who employs the technology to create deep fake material becomes conceivable. If the deep fake material generated isn't included within the ambit of the transforming application results in fair use, it could be considered a derivative work for which permission from the work's initial proprietor is needed.

Deep Fakes & Personality Rights

The interplay of the internet and deep fakes may present an imminent challenge to authorities. Deep fakes entail the artistic modification of videos and pictures. It implies that people are frequently unwilling performers in deep-fake works. Additionally, they might be completely oblivious to the deep-fake work. The work may have already been extensively extended when individuals learn about its existence. In such an instance, the harm to one's personality, and perhaps to the community, may be borderless, irrevocable, and irretrievable. As a result, a discussion of personality rights and privacy is extremely appropriate for building the entire intellectual property rights framework. Personal rights are the least harmonized of the several types of rights.²³

What intensifies issues is that Deepfakes, in some respects, functions similarly to the pharmaceutical sector. The doctor recommends the medication, the chemist sells it, the patient takes it, and the national

²² WTO | intellectual property (TRIPS) - agreement text - standards, https://www.wto.org/english/docs_e/legal_e/27-trips_04b_e.htm (last visited Feb 19, 2024).

²³ (PDF) Image Right and Copyright Law in Europe: Divergences and Convergences, https://www.researchgate.net/publication/276039212_Image_Right_and_Copyright_Law_in_Europe_Divergences_and_Convergences#read (last visited Nov 24, 2023).

health authorities pay for it in the pharmacy industry. Three distinct categories of individuals and enterprises are the doctor, the consumer, and the reimbursing authority. Unexpectedly, the Deep Fakes example is somewhat different. A deep fake film's customer is separate from the movie's developer, who has morphed and deep-faked a greater number of images and videos.

Copyright, privacy regulations, and personality rights are all involved in the sharing of original videos, photos, speech, and data in audio-visual material. Consumers, makers, and persons featured in these movies or photographs are frequently separate parties who frequently remain not associated and unknown to one another. This makes it difficult for buyers to feel remorse for the intended receiver of deep-faked work. The link between personality rights and deep fakes is essential to this subject. Individual tastes differ when it involves sharing pictures; some consider it as taking their soul, while others value public examination of their personality. Other parts of personality rights include name, signature, and other distinguishing characteristics.

Now the main concerns that arise over here are the challenging issue of deep fakes & copyright issues for personality rights and why it requires stronger protection though the John Doe Order is there.

Overview of John Doe Order

A John Doe order is a comprehensive injunctive remedy designed to protect the intellectual property rights of the author of artistic works such as films, music, and so on. The expression "John Doe" refers to unknown/ nameless defendants infringers who are accused of some wrongdoing, but their true nature is unknown to the plaintiff. To prevent unnecessary delay and to ensure justice, the court refers to the defendant as "John Doe" until the defendant is recognized. Orders issued by courts in such situations are referred to as "John Doe orders."

Benefits of John Doe order

The John Doe order supports filmmakers/producers and intellectual property owners in their battle against digital piracy and copyright infringement. Producers utilized the John Doe order on numerous occasions to prevent their films from being illegally downloaded from the internet. For the first time, in "*UTV Software Communication Limited v. Home Cable Network Ltd.*", the High Court of Delhi issued the John Doe order against the cable television operators that unlawfully transmitted unlicensed copies of films "7 Khoon Maaf" and "Thank You." Following this incident, the John Doe order is now a prevalent instrument within the field of media and appears to be an efficient means to combat piracy.

Deepfakes require stringent legislation- Reasons

As it's known to all, Deepfakes are the generic versions of Artificial Intelligence which has a lot of lacunae in today's tech-based era. Still, now the current IP Laws & IT Laws are trying to curb the issue. Owing to the lack of proper legislation it's become impossible to provide stringent protection.

Furthermore, it exploits certain unscrupulous persons to create fictitious pornographic content and political advertisements, putting the victim's privacy, identity, and protection at threat. Recently, Amitabh Bachchan's Deepfake A/V gives a light to safeguard his publicity rights against the fake Kaun Banega Crorepati (KBC) lottery scams. In this scenario, Justice Chawla states "granted protection to the plaintiff, safeguarding the use of his voice, face, unique characteristics, and restrained the defendants from misusing his name. While determining whether a creation in question is infringing or not, there are multiple things taken into consideration.²⁴" So, it's clear & evident that in India only under "Section 52 of the Indian Copyright Act," the concept of "Fair Dealing" where Deepfakes aren't exempting as Indian copyright jurisprudence²⁵ is very rigid and inflexible regarding "fair use."²⁶

Whereas in the USA fair use/ dealing laws have a fourfold examination which looks at the objective, the type of usage, the amount of original work employed, and the influence the material has on the market base. In a significant case, the US Supreme Court adopted the concept use,' which would readily accept any invention because Modernism implies the emergence of information has given new meaning and expression. Parodists use this as a defense against the transformational use of their creativity. Limits on these works will violation of free expression in the United States. Sensitive information requires more protection under the pretence of creative application.

Secondly in the USA the "Deepfakes Accountability Act, 2019" was passed ahead of the 2020 elections that mandated deepfakes watermarked for identification. Whereas in India Legislation isn't changing at the same rate as technology. At this point, India's technology law is inadequate to handle the concerns raised by AI algorithms.

Henceforth deep fake of Rashmika Mandanna observes that it shattered social media for that stringent Legislation required Delhi Police to file the case under the provisions of IPC & IT Legislations. Yet it is essential to make proper framework guidelines. To give a significant inception for the readers it's important to discuss one of the famous deepfake cases connected with personality rights.

²⁴ Face/Off: "Deepfake" Face Swaps and Privacy Laws | IADC, <https://www.iadclaw.org/defensecounseljournal/faceoff-deepfake-face-swaps-and-privacy-laws/> (last visited Feb 8, 2024).

²⁵ Navigating Deepfakes in the World of AI – NLIU-CLT, (Oct. 11, 2023), <https://clt.nliu.ac.in/?p=936> (last visited Nov 25, 2023).

²⁶ Applicability of section 52 of the copyrights act to specific works - Lexology, <https://www.lexology.com/library/detail.aspx?g=6634c94d-77bf-40fb-8a56-e82da8067285> (last visited Nov 10, 2022).

As we know celebrities are becoming more careful in protecting their personality rights, which include their identities, speech, signatures, photos, and unique characteristics. In the famous case of Anil Kapoor, Personality Rights. Unfortunately, no specific statute addressing personal rights exists in India. They're ultimately found on a blend of legal precedents and guiding principles.

This case must now be exact in grasping the importance of strict consumer protection in deep fake marketing. In this scenario, Anil Kapoor is a Nineties celebrity known for his classic films. One of his films, “Jhakkas,” is a parody; so, as a result, Anil Kapoor launched a lawsuit to preserve personal and privacy rights.²⁷

In this case, famous film star Anil Kapoor witnessed the unauthorized use of AI technology to capitalize on his image, voice, and identity for financial benefits. The dilemma in the Copyright Law, arises how can legislation keep up with the constantly shifting ways that AI may change and share content? Copyright law may not be adequate to address circumstances in which AI-generated content duplicates a person's voice or likeness without their permission. Although Anil Kapoor tried to limit the use of his name, voice, picture, and memorable phrases in this case, it is evident that copyright law does not directly address the duplication of one’s character using AI. Kapoor’s issue, like the concerns of the musicians listed in the article, extends beyond the conventional limits of copyright protection, highlighting the need for a stringent legal framework.²⁸

Finally, after critical analysis, the authors have found that exploring Personality rights, often known as the right to publicity or image rights, is an appealing option. It emphasizes that personality rights safeguard an individual’s name, image, likeness, or other distinguishing features of their identity. Indian law recognizes an individual's right to manage and profit from their personality, which is frequently included in the wider context of the right to privacy.

By understanding the complexity of the issue that arose with his film name “Jhakkas” the Court delivered the verdict in favour of him. As technology has no boundaries it emphasizes the need for safeguarding public figures and personas from unauthorized profiteering and the misuse of AI technology. It does raise significant issues about the emerging environment of AI, privacy, and free expression. As technology advances, legal precedents such as this will become increasingly important in establishing the boundaries of individual rights and the obligations of those who generate the distributed digital material. Decision in the Indian legal system illustrates its adaptability of legislation or its dedication to preserving people’s freedoms and reputation, despite the era of Artificial Intelligence.

²⁷ Rebalancing our regulatory response to Deepfakes with performers’ rights - Mathilde Pavis, 2021, <https://journals.sagepub.com/doi/full/10.1177/13548565211033418> (last visited Feb 8, 2024).

²⁸ Amisha Mittal, *Delhi High Court’s Landmark Order: Protecting Anil Kapoor’s Persona in the Age of AI – An Indian Legal Perspective*, THE IP PRESS (Oct. 9, 2023), <https://www.theipress.com/2023/10/09/delhi-high-courts-landmark-order-protecting-anil-kapoors-persona-in-the-age-of-ai-an-indian-legal-perspective/> (last visited Nov 26, 2023).

Conclusion

Finally, the authors would like to comprehend by stating that Deepfakes are being widely used in creating content at an instantaneous rate. As a result, it is readily accessible to individuals owing to the emergence of AI. Though in India concept of “fair dealing” is there in Copyright Law certain issues still exist that require a stringent law as there’s no viable technology available that can be effective in acting as an intermediary liability. The present regulations may not be sufficient to solve deepfake challenges using technology algorithms. There are concerns with regulating deep fakes, such as:

- a. Deepfakes can be recognized and identified in real time.
- b. Attribution shows, and the perpetrators are punished.
- c. Owing to the difficulty in determining whether the material provided supports the concept of free speech or infringes one's right to privacy.
- d. Ensure that the advantages to the victims are not overshadowed when pursuing these claims.
- e. The influence of the courts’ intrinsic time must be reestablished by the contemporary demand for deepfake control and mitigation.
- f. Legal counsel must have technical expertise to undertake these forms of criminal allegations.
- g. Remove the deep fake content from the internet as soon as possible.

These issues have long been argued in the field of cybersecurity. However, we as a community have a moral duty to minimize the spread of non-consensus harmful material. We've to educate ourselves and raise awareness about manipulations and the harm they may do. Youth should be taught about the implications of creating, posting, downloading, or spreading fraudulent information online. Regulators should prepare to embrace new approaches for controlling deepfakes so that the source of the content can be recognized and blocked appropriately. It is frequently observed that the primary argument used against bogus information is that an individual enjoys the freedom of speech and expression guaranteed by Article 19 of the Indian Constitution. We have to keep in mind that freedom of expression ends when one's right to privacy begins. Our responsibility here is to realize that our acts and freedom do not interfere with any other person's enjoyment of their rights. The right to withhold signature is a right guaranteed to every individual under Article 19 of the Indian Constitution, yet it cannot used to justify the creation and dissemination of fabricated or altered videographic content/still images that can manipulate people's thought processes regarding the content.



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JURISDICTIONAL CHALLENGES IN IPR DISPUTES IN CYBERSPACE: JUDICIAL TRENDS

*Supriya Malviya*²⁹

Abstract

This study explores the jurisdictional challenges inherent in intellectual property rights (IPR) disputes within the context of cyberspace, analyzing judicial trends across various jurisdictions. As the digital landscape transcends traditional geographical boundaries, courts grapple with complex issues of jurisdiction, enforcement, and applicable law in cases involving online intellectual property disputes. The research delves into key judicial decisions and trends that highlight how courts navigate the complexities of cross-border IPR conflicts. It examines the effectiveness of current legal frameworks and suggests potential reforms to address emerging challenges in a globalized digital environment. Key topics include extraterritorial jurisdiction, international treaties, enforcement mechanisms, and the role of technological advancements in shaping legal responses. This study provides a comprehensive overview of how judicial systems are adapting to the evolving landscape of cyberspace and offers insights into potential pathways for resolving jurisdictional issues in IPR disputes.

Keywords: *Jurisdictional Challenges, IPR, Cross-Border Disputes, Enforcement Mechanisms, Technological Advancements*

²⁹ Supriya Malviya, Graduate, B.A.LL.B.(Hons.), Maharashtra National Law University, Nagpur.

Introduction

The increasing importance of cyberspace in commerce is driving up demands on intellectual property protection.³⁰ Some experts suggest that intellectual property laws in cyberspace need a complete overhaul, while others believe that minor adjustments to existing laws are sufficient. Clearly, intellectual property issues in cyberspace are challenging traditional concepts of protection and enforcement, regardless of one's viewpoint on the matter.³¹ During this transitional period, courts are grappling with these novel challenges while balancing established intellectual property principles with the realities of modern technology.

Increasing internet usage and the cross-border exchange of “information and business transactions”, numerous legal issues have emerged. This article focuses on one significant issue: the jurisdiction of courts in handling intellectual property rights (IPR) disputes arising from online commercial transactions. Within the broader realm of IPR, the emphasis will be on trademark disputes, which have seen the most significant developments.

The legal community has faced challenges in balancing public access to new media with the need to protect authors' rights. New media technologies, such as photocopiers, which allow for rapid and cost-effective reproduction of written materials, and video recorders, which do the same for video content, have intensified conflicts between these interests. The rise of online business has further amplified these tensions, as digital works can be easily downloaded, shared via mailing lists, posted on bulletin boards, and copied for personal use. Digital formats enable near-perfect replication of texts, images, sounds, data, and computer programs.

Traditionally, jurisdictional issues involve determining whether a court has territorial, financial, or subject matter authority to hear a case. The internet complicates territorial jurisdiction due to its borderless nature—there are no physical boundaries within or between countries.³² The physical computer has given way to “*cyberspace*”, a virtual realm where information is stored and transmitted across the web. This raises questions about the 'location' of information in this virtual space. Jurisdiction is a preliminary concern, as challenges to jurisdiction can arise at the outset of a case and must be addressed before proceeding with the matter.³³

³⁰ Alexander C. Gavis, “The Offering and Distribution of Securities in Cyberspace: A Review of Regulatory and Industry Initiatives”, Vol I *Business Law Journal* 317, 319 n.6 (1995).

³¹ Neil Weinstock Netanel, “Copyright, and a Democratic Civil Society”, 106 *YALE Law Journal* 283 (1996).

³² Pankaj Jain and Pandey Sangeet Rai, “Copyright and Trademark Laws relating to Computers” at IX (*EBC*), 187 (2005).

³³ *L. Charan Das v. Gur Saran Das Kapur*, AIR 1935 ALL310.

The Concept of Internet Jurisdiction

The nature of Internet can be expressed as being multi – jurisdictional because of its flexibility to be accessed from any corner of the world. One of the primary theories relating to internet jurisdiction was laid down in *Burger King v. Rudzewicz*.³⁴ Here, the Court observed that jurisdiction could not be ignored merely because the Defendant did not physically enter the forum state. The purposeful ailment is satisfied further in the landmark case of *International Shoe v. Washington*.³⁵ The rule of minimum contact can very well be illustrated from the case of *Panavision Int'l. L.P. v. Toppen*.³⁶ Here, an Illinois resident, was an individual who attempts to profit from the Internet by reserving and later reselling or licensing Domain Names back to the companies that spent millions of dollars developing the goodwill of the trademark. The “*California Court*” held that jurisdiction was proper because Toeppen’s out – of – state conduct as intended to, and did, result in harmful effects in California. The Court found that the Defendant with the forum state.

Approaches to Cyberspace Jurisdiction

Some of the important approaches towards internet jurisdiction are as follows: -

(a) Determining Personal jurisdiction by applying ‘minimum contacts’

As far back as in the year 1945 the Supreme Court of the USA established and enhanced the scope of personal jurisdiction through had purposefully availed himself of the privilege of acting in the Forum state or causing a consequence in the Forum State. The “*Purposeful availment*” test assures that a non – resident Defendant will be aware that it could be sued in the Forum state.³⁷

(b) Refusing personal jurisdiction on account of Insufficient contacts:

The vast interconnectivity of the Internet cannot be the only reason for extending purposeful availment over every Defendant. Extending personal jurisdiction indefinitely by “the judicial system over out – of – state parties with little other contact than e – mail or website presence in a state can led to establishment of personal jurisdiction in any state. It is thus important for fair administration of justice, that Courts take a close look at whether the Internet Defendant is truly purposefully availing another jurisdiction.

In *Cybersell Inc. v. Cybersell Inc.*³⁸, there was a dispute over a service mark between two corporations, one at Orlando and another at Arizona. The issue in controversy here was whether mere use of a website by the Florida corporation was sufficient to grant the Court jurisdiction. The Court held that it would not

³⁴ *Burger King v. Rudzewicz*, 471 US 176 (1985).

³⁵ *International Show v. Washington*, 326 US 310 (1945).

³⁶ *Panavision Int'l L.P. v. Toppen*, 938 F Supp 616 (CD Ca 1996).

³⁷ *World-Wide Volkswagen Corp. v. Woodson*, 444 US 286 (1980) at p.297.

³⁸ *Cybersell Inc. v. Cybersell Inc.*, 44 USPQ 2d 1770, WL 754467 (WDNC 1997).

confirm with “*traditional notions of fair play and substantial justice*”³⁹ for Arizona to exercise personal jurisdiction over an allegedly infringing Florida website advertiser who has no contacts with Arizona other than maintaining a home page that is accessible to Arizonans, and to everyone else, over the Internet.

(c) The Sliding Scale Framework

Refusing jurisdiction on account of insufficient contacts is something that depends on a case-to-case basis. Courts in some online infringement cases have found the existence of a website alone sufficient to grant personal jurisdiction, but only after subjectively analysing the “*interactivity*” offered by the site.

To resolve the preliminary issues relating to jurisdiction in cyberspace, the Courts have started applying the sliding scale framework. The sliding scale framework was first developed by the United States District Court for the Western District of Pennsylvania in *Zippo Manufacturing Co. v. Zippo Dot Com. Inc.*⁴⁰ The framework is based on the premise that the likelihood of constitutional exercise of personal jurisdiction is directly proportionate to the nature and quality of commercial activity being conducted by an entity over the Internet. There are three different categories of Internet activity on the Zippo sliding scale.

(d) Real and Substantial test

The real and substantial connection test may, however, be applied in infringement disputes where the Defendant may not necessarily be the website owner. “*Section 3(e) of the Court Jurisdiction and Proceedings Transfer Act of Canada*” provides for such a test. Under this test, in order to determine whether any Court has jurisdiction or not, it is important to determine whether there is any real and substantial connection of the province and the facts on which the proceeding against the Defendant is based. The approach of permitting a suit where there is a real and substantial connection with the action provides a reasonable balance between the rights of the parties. Consequently, the Court must then consider the reasonableness of assertion of jurisdiction and great care must be exercised while extending jurisdiction to the international field.

(e) Jurisdiction based on Domicile

This basis of exercising jurisdiction is prevalent in the UK. Applying this rule to typical actions for abusive registration of Domain Names, jurisdiction would depend on the domicile of the registrant of the Domain Name and not upon the country where the “*Domain Name Registrar*” is based.⁴¹ Thus, it is appropriate to deal with an English hijacker in England, whether he has registered a .com name or a Domain Name indicating some other country. If the claimant does not have registered or common law

³⁹ *Darby v. Compagnie Nationale Air France*, 769 F Supp. 1255 at p. 1262 (SDNY 1991).

⁴⁰ *Zippo Manufacturing Co. v. Zippo Dot Com. Inc.*, 952 F Supp 1119 at p. 1124 (WD Pa 1997).

⁴¹ Kerly’s, *Law of Trademarks and Trade Names* (London Sweet & Maxwell, 2001) at 741.

rights in the domicile of the hijacker, he may be able to bring a claim under “*Section 56 (well – known marks)*⁴² of the 1994 Act.” Failing that, he will have to persuade a Court in his own country to exercise extra – territorial jurisdiction over the Defendant and generally this requires some substantial link between that country and the Defendant.

International and National Laws governing Intellectual Property in Cyberspace

- **International Laws:** Berne Convention (1886) protects the rights in Literary and Artistic Works, excluding daily news or press information. Special provisions are provided for developing countries. Rome Convention (1961), extended copyright protection to authors of creative works and owners of physical indicators of intellectual property, for the first time. It allows domestic implementation enacted by member countries, where the dispute is subject to the International Court of Justice for remedy unless arbitration. TRIPS (1994) is a multilateral agreement on intellectual property that covers copyrights and related rights in the widest range. WPT (1996) is for the protection of the copyright of authors in their literary and artistic works in international law. Additionally, it provides for the protection of the rights of performers and producers in international law. UDRP (1999) is for the resolution of disputes on registration and use of internet domain names.

The international treaties have a long way to go before they are capable of protecting intellectual property rights on the ground and within the nations. Until practical realization of the best practices of the treaties into domestic law takes a front seat, the standardization of protection in the intellectual property rights domain would remain a distant dream, miles away from reality.

- **National Laws:** In India, Sec.51(a)(ii)⁴³ is very clear that exclusive rights are vested in the copyright owner and anything to the contrary constitutes copyright infringement thereof. This legal provision, in the absence of any express provision for determining the liability of internet service provider (ISP), may be interpreted to come under the purview of expression ‘any place’ and ‘permits for profit’ where ISPs allow server facilities to stockpile user data at their business locations and make available for broadcast for making profit through charging for services and advertisements. But such interpretation faces difficulty to gain ground by way of added ingredients of ‘knowledge’ and ‘due diligence’ to be fulfilled before the ISP can be held to have abetted infringement of copyright.

⁴² Trademarks Act 1994 of the U. K., available at http://www.opsi.gov.uk/acts/acts1994/Ukpga_19940026_en_3.htm (last visited on May 16, 2024).

⁴³ The Copyright Act, 1957, Act no. 14 of 1957.

Information Technology (Intermediaries Guidelines) Rules 2011 and sec.79 IT Act, 2000⁴⁴ grant conditional safe harbour from liability of the online intermediaries, though keeping it open for interpretation on their liability under any other civil or criminal Act. IT Act 2000 makes an intermediary non-liaible for any third-party content hosted on its site. The 2011 Guidelines provide a diligence framework to be followed by intermediaries to avail the exemption granted in Sec.79. This makes it important for proactive judicial interpretation depending on the facts of each case.

In “*Super Cassettes Industries Ltd. vs. Myspace Inc. &Anr.*”⁴⁵, the Hon’ble Court held the intermediary liable for allowing viewing and sharing images over the intellectual property ownership of Super Cassettes. The case pronounced judicial activism by granting precedence to the Indian Copyright Act, 1957 over the safe havens of IT Act, 2000, through reading sec.81 in conjunction with and over sec.79 (IT Act).

Sec.14⁴⁶elucidates what constitutes exclusive rights. The Hon’ble HC of Calcutta had recently passed an ex-parte injunction at the instance of the petitioners “*Phonographic Performance Ltd. (PPL), Indian Music Industry (IMI), and Sagarika Music Pvt. Ltd.*”, to restrict an array of “*ISPs namely Dishnet Wireless Ltd, Reliance Wimax Ltd, Hathway Cable & Datacom Pvt Ltd, Hughes Communications Ltd India, Tata Teleservices (Maharashtra) Ltd, Reliance Communications Infrastructure Ltd, Wipro Ltd, Sify Technologies Ltd, Bharti Airtel Ltd, Vodafone India Ltd, and BG Broadband India Pvt Ltd.,*” from providing access to www.songs.pk.

It is clear that a Napster-like network in India would fall within the ambit of this provision whereby it would be held liable for encroaching upon the exclusive copyright rights of the intellectual property rights owner through communication or facilitation of communication to the public.

Sec.51(b)(ii)⁴⁷suggests the infringement of copyright through distribution either for the purpose of business/trade or to prejudice the copyright owner. P2P network in India thereby would be distributing such work that would be prejudicial to the interests of the copyright owner, even if the component of trade/business is missing in it. Hon’ble Courts ought to be cautious while granting the defence of fair dealing for copyright infringement under Sec.52.⁴⁸

⁴⁴ The Information Technology Act, 2000 (No. 21 of 2000), s.79.

⁴⁵Super Cassettes Industries Ltd. vs. Myspace Inc. &Anr., (2011) 47 PTC 1 (Del).

⁴⁶ The Copyright Act, 1957, Act no. 14 of 1957, s.14.

⁴⁷ The Copyright Act, 1957, Act no. 14 of 1957, s.51(b)(ii).

⁴⁸ The Copyright Act, 1957, Act no. 14 of 1957, s.52.

The Indian Scenario

The Indian Courts are continuously endeavoring to enhance the scope of jurisdiction to bring within its scope the Internet related matters where the Defendant is either an out – of – state person or entity or where such an out – of – state person or entity files a suit in a foreign Court over the Indian Citizens and detains the Indian citizens for the wrongful act committed by them.

(a) Indian territorial jurisdiction over the Out – of – State Defendant

The owner of a trademark can file a civil suit in the Indian Courts of the infringement of his rights vested in such mark, if he fulfils the criteria laid down in “*Sec.134 of the Trademark Act, 1999*” which is equivalent to “*Sec.62 of the Copyright Act, 1957.*” Every suit in respect of the infringement of trademark in any work or the infringement of any other right conferred by this Act shall be instituted in the District Court. Sec.2(4) of the code of Civil Procedure provides that: District means the local limits of the jurisdiction of a principal Civil Court of original jurisdiction (hereinafter called a ‘District Court’) and includes the local limits of the ordinary original civil jurisdiction of a High Court”. However, to determine whether the Court has jurisdiction or not the section further lays down certain criteria which provides that a District Court having jurisdiction shall include a District Court within the local limits of whose jurisdiction, at the time of the institution of the suit or other proceeding, the person instituting the suit or other proceeding or, where there are more than one such persons, any of them actually and voluntarily resides or carries on business or personally works for gain, in spite of anything else contained or that may have been mentioned in the Code of Civil Procedure. A suit for passing off arising out of the use by the Defendant of a trademark, which is identical with or deceptively similar to the Plaintiff’s trademark whether registered or unregistered, shall thus be instituted in a District Court having jurisdiction to try the suit. However, it does not provide the meaning of the ‘District Court. The code of Civil Procedure provides the jurisdiction of the District Court.

(b) Cause of action

CPC provides for territorial jurisdiction. Sec.20⁴⁹ provides for jurisdiction where the suit can be instituted based on cause of action.⁵⁰

In the context of the Internet, however, it becomes very difficult to determine these above – mentioned factors to reach the out – of – state Defendants. But if the cause of action clause was to be carefully examined, it is amply clear that the Defendant’s residence or his business or his personal work of gain would be immaterial if the cause of action wholly or in part arises in India.⁵¹ The Indian Courts would thus have the jurisdiction even though the Defendant is not a resident of India. However, it becomes

⁴⁹ The Code of Civil Procedure, 1908.

⁵⁰ The Code of Civil Procedure, 1908, s.20.

⁵¹ *City and Industrial Development Corpn. Of Maharashtra v. R.M. Mohite & Co.* 1998 (2) Mah LR 641.

very hard to deal with or understand the troublesome issues of Internet jurisdiction in infringement disputes, where there are usually no contracts between the two parties, i.e., the owner of the copyright and the infringer. The Indian Courts have strived to deal with the issue. The Courts have granted certain interlocutory orders in some Domain Name disputes in which the law of passing off had been applied. In “*Tatasons v. Ghasson Yacoub*⁵²”, the Defendant had registered the Domain Name ‘tatagroup.com’ in the US while the Plaintiff was a resident of India. Mukul Mudgal, J. held that since the Internet has transactional ramifications, it is the effect of the impugned transaction in India, which is the decisive factor for determining jurisdiction. The Court thus held that the Internet could be accessed in New Delhi though it had been registered in the US and thus established jurisdiction over the Defendant on the basis of part cause of action as provided in sec.20(c)CPC. Part cause of action having arisen within the jurisdiction of this Court, it cannot be said that this Court has no jurisdiction.⁵³ But if Internet jurisdiction was determined on the basis of accessibility, it would be such that all kinds of infringement disputes arising over the Internet would cling to the Indian jurisdiction. Thus, though amendment of sec.20 provides for part cause of action, it is also important that Courts interpret the term with a requirement of something more than mere accessibility. It is apparent that part cause of action can be termed as equivalent to sufficient contacts.⁵⁴ In order to determine the jurisdiction of Court, if in a dispute, it can be seen.

The Defendant had some kind of minimum contact within the local limits of such a District Court, as part cause of action criteria can be established. The Court in “*Yahoo! Inc. v. Akash Arora*⁵⁵” rightly held that there should be something more than mere accessibility to establish part cause of action. The cause of action requirement can thus be fulfilled with reference to the sliding scale framework.⁵⁶ If the Plaintiff establishes that the Defendant is doing business with the local limits of jurisdiction or is in some way interacting within the local limits of such state, then the Courts of such state can enhance the scope of jurisdiction on such out-of-state Defendants. While, the Delhi HC, in the landmark case of “*Banyan Tree Holding (P) Ltd v. A. Murali Krishna Reddy and Anr.*⁵⁷” applied the rule of purposeful availment to the Indian scenario by holding that in order to establish the jurisdiction, the Plaintiff would have to show that the Defendant purposefully availed of the jurisdiction of the forum by targeting customers within the forum state, the Court also relied upon the ‘long arm’ provision contained in Sec.62(2)⁵⁸ which provides that the physical location of the defendant is immaterial and the case could

⁵²Tatasons v. Ghasson Yacoub, suit No. 1672 of 1999.

⁵³ Kotak Mahindra Finance Ltd. v. Parasrampuria Synthetics Ltd., (1998) 1 Bom CJ 627.

⁵⁴ International Shoe Co. v. Washington, 326 U.S. 310 (1945).

⁵⁵ Yahoo! Inc. v. Akash Arora, (1999) 19 PTC 210 (Delhi).

⁵⁶ Zippo Manufacturing Co. v. Zippo Dot Com Inc., 952 F Supp 1119 at p. 1124 (WD Pa 1997).

⁵⁷ Banyan Tree Holding (P) Ltd v. A. Murali Krishna Reddy and Anr., 2010 (42) PTC 361.

⁵⁸ The Copyright Act, 1957, Act no. 14 of 1957, s.62(2).

be instituted in the local limits of a Court within which the Plaintiff, “*carries on business*”.⁵⁹ For some, this raises concerns regarding the extraterritoriality of Indian IPR law⁶⁰, however, the Courts have consistently upheld the Banyan Tree principle to give relevance to the plaintiff’s place of business in such disputes in contrast to the rules of territorial jurisdiction generally applicable to other disputes. In “*Blueberry Books & Ors. vs Google India Pvt. Ltd & Ors.*,”⁶¹ the Delhi HC, while relying upon the decision of the SCI in “*Indian Performing Rights Society v. Sanjay Dalia*”⁶² harmoniously construed the provisions of Sec.62⁶³ with the general provisions contained in Sec.20 of the CPC and allowed the plaintiff to institute a suit where he is having place of business. However, the Court also stressed that once it is shown that the defendant ‘*carries on business within the jurisdiction*’ of the Court, and the plaintiff, which is the copyright owner, also ‘resides’ there, jurisdiction cannot be denied. In the infringement disputes where an Indian Citizen is involved, and where the foreign national is the claimant, the foreign national can obtain a foreign judgement which would be conclusive in India. However, there are certain exceptions mentioned in Sec.13⁶⁴ regarding the same. It is thus very essential to note that ideally the users of the world wide web should access and communicate with the web with the awareness of the international laws as they can be liable in the foreign Courts also, if such act violates the rights of foreign nationals. The daily addition of cases in this field has necessitated a need for framing a unique, and a new legal framework with an international perspective in which much of the outcomes of the jurisdiction issue should be drawn with the result of solving such matters expeditiously in their preliminary stage. A possible innovative solution is perhaps increasingly resorting to online or international dispute resolution mechanisms provided by the “*World Intellectual Property Organization (WIPO)*” or as enshrined in the “*Uniform Domain Name Dispute Resolution Policy (UDRP)*” established by the “*Internet Corporation for Assigned Names and Numbers (ICANN)*”. The nature of these mechanisms is international in nature and presumes that the internet is a virtual space in itself, thus negating traditional jurisdiction problems giving an international character to these disputes like that of the internet itself, based on the principle what happens on the internet, stays on the internet.

⁵⁹ The Trademark Act, 2002, s.134(2).

⁶⁰Hrishita Mukherjee, “Copyright Protection in Cyberspace-A Comparative Study of USA and India”, International Journal of Science and Research (IJSR) Vol 5 Issue 5 33 (2016).

⁶¹ *Blueberry Books & Ors. v. Google India Pvt. Ltd & Ors.*, FAO (OS) 69/2014.

⁶² *Indian Performing Rights Society v. Sanjay Dalia*, 2015 (10) SCC 161.

⁶³ The Copyright Act, 1957, Act no. 14 of 1957.

⁶⁴ The Code of Civil Procedure, 1908, s.13.

Conclusion and Suggestions

The law of intellectual property in cyberspace is on the move. The only problem for practitioners is that the direction of the move is not exactly clear at this point. As intellectual property continues to grow in value and importance in our information society, however, and as the Internet continues to grow in importance as a medium of commerce, the intersection of these two areas will be the hot spot to watch. An oft repeated quote in the context of the internet is that of Judge Nancy Gertner in *Digital Equipment Corp. v. Altavista Technology*:⁶⁵

*“The internet has no territorial boundaries. To paraphrase Gertrude Stein, as far as the internet is concerned, not only is there perhaps ‘no there, there,’ the ‘there’ is everywhere where there is internet access.”*⁶⁶

Jurisdictional challenges in intellectual property rights (IPR) disputes within cyberspace underscore the difficulties of applying traditional legal frameworks to the rapidly evolving digital landscape. As online interactions transcend national borders, the complexity of determining jurisdiction and enforcing rights becomes increasingly evident. Judicial trends reveal an ongoing struggle to adapt existing laws to the unique demands of cyberspace, resulting in varied interpretations and inconsistent resolutions. Despite efforts to address these challenges, the legal system must evolve to better align with the global nature of digital commerce and communication, ensuring that intellectual property is effectively protected, and disputes are fairly resolved.

This article examined the challenging and varied approaches that common law courts have taken to establish a clear test for jurisdiction in disputes arising from online activities. The difficulty is exacerbated by the fact that technology evolves rapidly, often outpacing legal frameworks by several steps. Currently, it seems that the law’s attempt to keep up with technological advancements is more aspirational than achievable. As Indian courts increasingly encounter cases involving foreign or extraterritorial defendants in internet transactions, they will likely continue to rely on legal precedents set by common law jurisdictions elsewhere. Just as technology itself is largely adopted from other sources, the legal principles governing it are also expected to follow a similar trajectory.

There is a significant opportunity and need for developing domestic legal frameworks. Although Indian statutory law in intellectual property rights (IPR) has been adapted to meet international standards, a similar approach is necessary for e-commerce law. Relying on legal systems to maintain the level upto the rapid “technological advancements” in internet usage will be challenging. There is a risk that without proper adaptation, we may inadvertently create additional barriers in cyberspace, leading to the development of various technologies designed to circumvent these new legal constraints. These issues

⁶⁵ Supra note 53.

⁶⁶ Supra note 60.

highlight the beginning of what is likely to be a prolonged process for lawmakers and enforcers as they work to address and manage these evolving legal challenges. To address the enumerated jurisdictional challenges, it is crucial to develop comprehensive international frameworks that facilitate cooperation and provide clear guidelines for cross-border IPR disputes. Updating national laws to define jurisdictional boundaries in cyberspace and strengthening enforcement mechanisms for foreign judgments are essential steps. Additionally, fostering global dialogue and consistency in case law, along with leveraging technological advancements, can improve the handling of IPR disputes. By promoting these measures, the legal community can enhance the management of jurisdictional issues, ensuring both efficient protection of IPR and equitable access to justice in this ever-evolving digital world.



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UNCONVENTIONAL TRADEMARKS: THE REQUIREMENT OF GRAPHICAL REPRESENTATION UNDER THE INDIAN LAW

Vaibhav Sharma & Bharat Rakesh Bhardwaj⁶⁷

Abstract

Trademarks are important for any brand's identity or reputation and also for consumer protection, but the idea of what constitutes a trademark is developing and expanding. There are conventional and unconventional trademarks. Conventional trademarks like logos or names are widely acknowledgeable, but there is a growing realization of unconventional trademarks, including colors, sounds, and movements. Such unconventional marks, while not represented graphically in the conventional sense, can still serve themselves as determiner of source and quality of products. This research paper by the authors tests the legal status of unconventional trademarks in various jurisdictions around the globe especially on the United States, United Kingdom, European Union, and India. In the United States, unconventional marks can be protected if the marks are distinctive and have developed a secondary meaning. The approach of EU towards it is that unconventional trademarks have more permissive approach, allowing for registration of marks that can be represented in a clear, precise manner and easily accessible, intelligible, durable, and in objective form. However, Member States have some autonomy in applying these requirements. In India, the legal status of unconventional trademarks is still developing day by day. The Trademarks Act does not specifically prohibit the non-traditional marks, but there is a demand of graphical representation. The Agreement on Trade-Related Aspects of Intellectual Property Rights (herein referred as TRIPs) gives it some flexibility, allowing for protection of unconventional marks without any strict graphical representation. This paper by the authors tests the legal frameworks in these jurisdictions and discusses the challenges and opportunities which will be crucial for protecting unconventional trademarks.

⁶⁷ Vaibhav Sharma & Bharat Rakesh Bhardwaj holds LL.M (IPR Laws) degree from National Law University, Jodhpur in 2023. Authors are currently Advocates at Rajasthan High Court and can be reached at adv.vaibhavrajan@gmail.com and brb991@gmail.com.

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Introduction

A trademark is a distinctive symbol, design, phrase, or word that identifies and distinguishes a particular product or service from those of other producers⁶⁸. Trademarks are protected under law to provide companies with a way to protect their branding and distinguish their products from those of others. Trademarks allow consumers to easily identify a company and its products and associate them with a certain level of quality, reputation, and goodwill.

By having a trademark, a company has the exclusive right to use its trademark on its goods and services and to prevent others from using similar marks that may cause confusion among consumers. This helps to promote fair competition and prevent consumer confusion, deception, and harm. Trademarks also serve as an asset to companies, representing the investment made in branding and the value of the company's reputation and goodwill. Protecting trademarks through the legal system helps to ensure that this asset is not diminished or exploited by others.

Historically, one of the most important requirements/criteria under the Trademark law (along with the most criteria of distinctiveness) has been that of “Graphical Representation”⁶⁹ that is, that the mark should have the capacity to be denoted in a graphical or similar form, which then in fact allows the consumers to distinguish it from other products.

Typically, these kinds of marks are referred as Conventional Trademarks, these types of trademarks are considered conventional because they have been used for a long time and are widely recognized by the public as a means of identifying and distinguishing goods and services. By registering and protecting conventional trademarks, businesses can establish a unique brand identity and prevent others from using similar marks that could confuse or deceive consumers.

Conversely, there are some marks which *prima facie* can't be represented graphically and are referred to as Unconventional or Non-Conventional trademarks.⁷⁰ An unconventional trademark is a type of trademark that doesn't fit the traditional mold of a trademark. This can include things like colors, sounds, scents, or even movements.⁷¹ Unlike conventional trademarks like logos or names, unconventional trademarks can be more difficult to register and enforce, as they often lack the clarity and distinctiveness that is required for trademark protection. However, if an unconventional trademark

⁶⁸ Vatsala Sahay, Conventionalising Trademarks of Sounds and Scents: A Cross-Jurisdictional Study, 6 NALSAR Student Law Review 128, 128-141 (2011).

⁶⁹ Section 2(1)(zb), Trade Marks Act, 1999.

⁷⁰ Sanya Kapoor & Riya Gupta, The Five Senses and Non-Traditional Trademarks, 8 Supremo Amicus 214, 214-231 (2015).

⁷¹ David Vaver, Unconventional and Well-Known Trademarks, Singapore Journal of Legal Studies 1, 1-19 (2005).

is distinctive and has acquired secondary meaning, it can still be protected under trademark law.

The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs), an international agreement under the World Trade Organization (WTO) that sets minimum standards for the protection and enforcement of intellectual property rights, including unconventional trademarks. Under the TRIPs agreement, unconventional trademarks, such as sounds, scents, colors, shapes, and motions, are eligible for protection as trademarks, provided that they meet the criteria of distinctiveness since visual representation is not made mandatory and hence even without a mark being graphically represented it can be protected within the flexibilities of the TRIPs agreement. The TRIPs agreement requires member countries to provide the right to prevent the use of a trademark that is identical or similar to a registered trademark for similar goods or services, if it is likely to cause confusion or deceive the public. This applies to unconventional trademarks as well, meaning that a company can prevent others from using a similar unconventional trademark to identify their goods or services if it is likely to cause confusion or deceive the public.

It is the latter category of marks that'll be discussed in this paper at length and through references to legal position in the subject matter in foreign jurisdictions, specifically United States (US), United Kingdom (UK) and European Union (EU), along with interpretations of provisions under Indian law dealing with graphical representation, the status of unconventional trademarks in India would be inferred and accordingly, necessary conclusions and recommendations will be made.

Unconventional Trademarks: What are they?

As mentioned earlier, Unconventional trademarks are non-traditional forms of intellectual property that are used to identify and distinguish a particular product or service from those of others. Unlike conventional trademarks, which typically consist of logos, slogans, and names, unconventional trademarks can include other distinctive elements such as colors, sounds, shapes, or scents and are harder to perceive⁷².

Unconventional trademarks may be classified in one of the following categories⁷³-

1. Shape trademarks: A shape trademark is a type of unconventional trademark that uses a specific shape or configuration to identify and distinguish a particular product or service from those of others. Shape trademarks can include three-dimensional shapes, two-dimensional designs, or a

⁷² Lindstorm Martin, Brand Sense, Build Powerful Brands Through Touch, Taste, Smell, Sight and Sound, Kogan Page Publisher, (2005).

⁷³Smell, Sound and Taste-Getting a Sense of Non-Traditional Marks, WIPO, http://www.wipo.int/wipo_magazine/en/2009/01/article_0003.html.

combination of both. Shape trademarks can be difficult to protect because they often serve a functional purpose, such as providing stability or protection to the product. In order to be qualified for protection under the trademarks Act, a shape trademark must qualify certain parameters, which are distinctiveness and non-functionality of the mark. Shape trademarks registration basically requires a complete detailed description of the shape and representation of the same, and in some jurisdictions around the globe, proof that the shape has acquired distinctiveness and uniqueness through its use. Some examples of it would include- Coca-Cola's bottle as well as the cylindrical shape of the Pringles potato chips box.

2. **Sound trademarks:** A sound trademark is another special type of unconventional trademark that uses a specific kind of sound or melody or even tunes to identify and distinguish a specific product or service from those of others. Sound trademarks can include sound logos, or even other distinctive audio signatures or jingles. In order to be eligible for protection of trademark, a sound trademark must qualify certain given criteria, like distinctiveness and non-functionality of it. The registration process for sound trademarks requires a recording of the particular sound, along with a detailed description of its use in association with the product or service, and in some jurisdictions, a demonstration that the sound has acquired uniqueness through the use of it. MGM lion roar or the NBC chimes are some examples of it.
3. **Color trademarks:** Another type of Unconventional trademarks is color trademarks. Color trademark is a type of unconventional trademark that uses a specific color or basically a combination of colors to identify and distinguish a specific kind of product or service from those of others. In order to be qualifying for the protection of color trademark, a color trademark actually meet certain parameters like distinctiveness and non-functionality of it. The registration process for color trademarks requires a detailed description of the color and its use in collaboration with the product and in some jurisdictions around the globe, a demonstration that the color has acquired distinctiveness through its use. It is very essential here to note that while color trademarks can be very effective in making any brand recognition and differentiation, they are also one of the most difficult types of trademarks to protect because as colors are often used by multiple brands for similar products or services. Tiffany & Co.'s robin egg blue color is a best example of it.
4. **Motion trademarks:** Trademarks that protect a specific motion or animation, such as the Pixar lamp or the scrolling Apple logo.
5. **Holographic trademarks:** Trademarks that protect the use of holographic images, such as the holographic NBA logo.
6. **Scent trademarks:** A scent trademark, commonly referred as smell mark, is a kind of unconventional

trademark which is used to distinguish a particular product or service by the using of a specific scent. Scent trademarks can include fragrances, aromas, or even odors that are linked with a particular brand or even a product. Scent trademarks can be difficult to get protection because they are intangible in nature and couldn't be represented graphically. But in some jurisdictions around the globe, scented trademarks can be registered and protected under trademark law if they qualify certain kinds of parameters, such as distinctiveness and non-functionality⁷⁴. The registration steps given for scent trademarks can be complex in nature and can requires a detailed description of the scent and its use in association linked with the product or service. The Bubble gum scent for Sandals, the scent of roses used by the brand Air Wick are kind of examples of it.

7. Taste trademarks: Trademarks that protect a specific taste, such as the taste of Coca-Cola's secret formula. Such trademarks are Taste Trademarks.
8. Position trademarks: Trademarks that protect a specific location or placement, such as the location of a logo or tagline on a product. Such trademarks are Taste Trademarks.
9. Trade dress trademarks: Trademarks that protect the overall look and feel of a product or its packaging, such as the design of the Apple iPhone or Louis Vuitton's Damier pattern.

Such types of unconventional trademarks could be difficult to protect and actually needs a high level of distinctiveness in order to be even considered eligible for protection. However, when successfully registered, unconventional trademarks can provide a company with a unique and effective means of protecting their brand and intellectual property (IP).

Unconventional Trademarks in Other Jurisdictions

European Union

The European Union (EU) recognizes a wide range of unconventional trademarks, including shapes, sounds, colors, and scents, provided that they meet the criteria of distinctiveness and non-functionality. The EU Intellectual Property Office (EUIPO) has established guidelines and procedures for registering unconventional trademarks, which are governed by the EU Trademark Regulation.

In order to be eligible for protection under EU trademark law, an unconventional trademark must be distinctive, meaning that it must be capable of identifying the goods or services of one particular entity as opposed to those of others⁷⁵. This can be achieved through acquired distinctiveness, meaning that the

⁷⁴ Tanisha Agarwal & Vanshaj Mehta, Hear Me, Touch Me, Taste Me, Smell Me: Conventionalizing Non Conventional Trademark in India, 3 Journal of Contemporary Issues of Law 1, 1-22 (2017).

⁷⁵ *Ibid.*

trademark has become distinctive through use over a sufficient period of time, or through inherent distinctiveness, meaning that the trademark has a unique and unusual character that makes it inherently capable of identifying the goods or services. In terms of the requirements for registering unconventional trademarks, the EUIPO requires a clear and concise representation of the trademark, which may be achieved through a sound recording, a description of the scent or taste, or a depiction of the shape or color.

Overall, the EU recognizes and provides protection for unconventional trademarks as a means of creating unique and recognizable brand identities, provided that they meet the criteria of distinctiveness and non-functionality.

Graphical representation used to be an important criterion, per EU Directive 89/104/EEC, that governed the subject matter of trademark, specifically Article 2 of the said directive mandates graphical representation.

In the case of *Raf Sieckmann v. Deutsches Patent und Markenamt*,⁷⁶ a landmark decision by European Court of Justice on the matters of unconventional trademarks, the applicant tried to get registration for the scent defined as “*as balsamically fruity with a slight hint of cinnamon*”, accompanied by chemical formula, composition and sample attached with the application.

Even though description through words indeed rendered to be graphical representation, it was held that it was not possible to properly understand the scent with description alone, and so the registration was denied. The court further noted that the representation made should be “*clear, precise, self-contained, easily accessible, intelligible, durable and objective.*”

In a later case of *Shield Mark BV v. Kist*,⁷⁷ concerning with sound marks and graphical representation requirement for the same, ECJ opined that representation by the methods of musical notes or other kind of musical notations would be a valid representation under the law.

Importantly, the requirement of graphical representation has since been removed by EU Trademark Directive 2015/2436 and EU Trademark Regulation 2015/2424,⁷⁸ and registration of unconventional trademarks is easier given they qualify as distinctive and have secondary meaning.

⁷⁶ *Raf Sieckmann v. Deutsches Patent und Markenamt*, Case C-273/00, European Court of Justice

⁷⁷ *Shield Mark BV v. Kist*, Case C-283/01, European Court of Justice.

⁷⁸ Tanisha Ranjan, India: Protection of Non-Conventional Trademarks, *Fast forward Justice's Law Journal*, <https://fastforwardjustice.com/india-protection-of-non-conventional-trademarks/>

United Kingdom

Before exiting from the EU, the UK used to follow the same directive 89/104/EC, having implemented it in its domestic law via Trademark Act of 1994.

The UK Intellectual Property Office (UK IPO) recognizes unconventional trademarks, such as sounds, scents, and shapes, under the Trademarks Act 1994. Here are some aspects related to unconventional trademarks under UK law:

Sound marks: A sound mark can be recorded and submitted in MP3 or WAV format as part of the trademark application. The sound mark should be distinctive and capable of being represented graphically.

Smell marks: A description of the scent mark can be submitted along with a sample of the scent for examination by the UK IPO. The scent should be distinctive and capable of being represented graphically.

Shape marks: A shape mark can be submitted as part of the trademark application, along with a description of the shape and its intended use. The shape should be distinctive and non-functional.

Historically, the applications made by Sumitomo Rubber Company's scent of roses from their tyres⁷⁹ and the darts made by Unicorn Products having smell of Beers,⁸⁰ the distinctive waving movement of the hands of London's "Little Chef" restaurant chain as a motion mark are examples of successful registration of unconventional marks in UK.

United States

The Lanham Act⁸¹ is a federal trademark law in the United States that governs the registration and protection of trademarks. The Lanham Act provides for the registration of both conventional and unconventional trademarks, including marks such as shapes, sounds, scents, and colors. Under the Lanham Act, a trademark must be distinctive and capable of identifying the goods or services of a particular source. This means that the trademark must be sufficiently unique and different from other marks used in the market and must not cause confusion among consumers.

As per the Act, "*protection can be granted to any words, symbols, name or any combination if they are used to identify and distinguish goods or services of one undertaking from those of other undertaking,*" so the requirement of graphical representation is not available⁸² even though, it might be asked for

⁷⁹ Sumitomo Rubber Co's Application No. 2001416, 31 October 1994.

⁸⁰ Unicorn Products' Application No. 2000234, 31 October 1994.

⁸¹ 15 U.S.C. § 1051 et seq.

⁸² Linda B. Samuels & Jeffrey M. Samuels, Colour Trademarks: Protection under U.S. Law, 15 Journal of Public Policy & Marketing 303, 303-307 (1996).

registration of it but actually just to make aware about what has been trademarked.

The Lanham Act recognizes unconventional trademarks as a way to distinguish goods and services and protecting the source of those goods and services. It basically means that unconventional trademarks qualify for registration and protection under the Lanham Act, given that they should meet the requirements of distinctiveness and are capable of identifying the source of the goods or services. In recent years, there have been plenty of legal cases in the United States (US) where the disputes are regarding unconventional trademarks, including the registration of scent marks, sound marks, and color marks. These cases have helped to clear the legal standards regarding unconventional trademarks and establish parameters for their protection under the Lanham Act. This liberty under the Act has also been trans versed into the case laws in US.

In *Qualitex Co. v. Jacobson Products and Co.*,⁸³ the US supreme court held that the primary function of the trademark was that of distinctiveness and not of graphical representation.

The US also has a functionality doctrine in place that states that trademark should not have any relation to the function of the product.

*“In re Celia, d/b/a Clarke's Osewez”*⁸⁴ a case decided by the United States Patent and Trademark Office (USPTO) that dealt with the issue of registering an unconventional trademark, specifically a scent trademark, it was held that function should not have relation to the smell of the product which is attempted to be trademarked.

The case *“Christian Louboutin vs. Yves Saint Laurent”*⁸⁵ was also a trademark infringement case that was decided by the US District Court for the Southern District of New York and later on upheld by Court of Second circuit there. The case centered around the use of red soles on high-heeled shoes. The plaintiff Christian Louboutin claimed that the red soles of its brand’s shoes were a distinctive and protectable trademark, while on the other hand defendant Yves Saint Laurent argued that the red soles were functional and not actually eligible for trademark protection. The district court somehow went with the arguments of Christian Louboutin and ruled that the red soles of its shoes were indeed a distinctive trademark that had acquired secondary meaning as a source indicator. The court of law also found that Yves Saint Laurent had infringed upon Christian Louboutin’s trademark by using red soles on its own high-heeled shoes. So, this case is very significant as it demonstrates the protection that unconventional trademarks, such as color, can get under the trademark law. It also reflects on the importance of acquiring secondary meaning for unconventional trademarks to be eligible for protection.

⁸³ *Qualitex Co. v. Jacobson Products Co.*, 514 US 159 (1995).

⁸⁴ *Re Celia*, 217 U.S.P.Q.2d.1238 (1990).

⁸⁵ *Louboutin v. Yves Saint Laurent America Holding, Inc.*, 696 F.3d 206 (2012)

In the year 2000, “Yahoo” filed for registration of the Yahoo Yodel as a sound trademark with the United States Patent and Trademark Office (USPTO). The application faced opposition from the authority USPTO, where USPTO claimed that sound marks were difficult to represent graphically and that the Yahoo Yodel lack distinctiveness in it. However, Yahoo contented that the sound had acquired secondary meaning as a source indicator and was widely recognized by consumers as being associated with Yahoo. The USPTO ultimately granted registration of the Yahoo Yodel as a sound trademark.

This liberal behavior towards Unconventional marks has resulted into many such unconventional marks being registered in US, with some of the earliest examples being NBC jingles as sensory marks in 1970, and later MGM and their lion roar to name a few.

Unconventional Marks in India Vis-À-Vis Graphical Representation

Section 2(1)(zb) of the Trade Marks Act, 1999 defines a trademark as *“A mark capable of being represented graphically and which is capable of distinguishing the goods or services of one person from those of others and may include shape of goods, their packaging and combination of colours”*.

Section 2(1)(m) defines a mark as *“A device, brand, heading, label, ticket, name, signature, word, letter, numeral, shape of goods, packaging or combination of colours or any combination thereof”*.

Additionally, Section 26(5) of trademark rules, 2017, reads as-

“Where an application for the registration of a trademark consists of a sound as a trademark, the reproduction of the same shall be submitted in the MP3 format not exceeding thirty seconds' length recorded on a medium which allows for easy and clearly audible replaying accompanied with a graphical representation of its notations.”

Under Indian trademark law, a trademark must be capable of being represented graphically in order to be registered. This means that the trademark must be capable of being depicted or represented in a manner that clearly and precisely shows its features. Unconventional trademarks, such as shapes, sounds, colors, and motions, can still be protected as trademarks in India, even though they may not meet the requirement of graphical representation in the traditional sense. For example, sounds can be represented through musical notation, while shapes can be depicted through drawings or photographs. In order to meet the requirement of graphical representation, unconventional trademarks must be represented in a manner that allows the Trademark Office and the public to clearly understand the nature of the trademark and its features. The representation must also be capable of being reproduced for the purposes of registration, enforcement, and dispute resolution.

So under the Indian law, as could be seen Graphical representation is a mandate under Section 2(1)(zb), however, it is possible for some of the unconventional marks such as colour marks and sound marks to

be registered. It is important to note that per Section 2(1)(m) only the combination of colours is protectable and not single colour trademarks.

In the case of *Colgate Palmolive Co. v. Anchor Health and Beauty Care Pvt. Ltd.*,⁸⁶ by Delhi HC, the defendant was banned from using the colour combination (red and blue) of product manufactured by Plaintiff and it was held that any such copying may in fact be passing off of the trademark.

In the case of *Christian Louboutin Sas v. Abu Baker and Ors.*,⁸⁷ it was reiterated by the court that it is not possible under Indian law to grant trademark on single colour.

For Sound marks, as Section 26(5) denotes, it is possible to give a graphical representation and get them registered but it is important that the sound has become one and same with the product in the minds of the consumers. Yahoo's three note yodel and ICICI Bank's jingle are some instances of successful sound mark registrations in India. Britannia's bell, NSE's theme song, lion roar of MGM studios, Nokia ring tone are some other instances of successful sound mark registration in the country.

With reference to the shapes, the Section 9(3) of trademark act, 1999 reads as-

“A mark shall not be registered as a trademark if it consists exclusively of— (a) the shape of goods which results from the nature of the goods themselves; or (b) the shape of goods which is necessary to obtain a technical result; or (c) the shape which gives substantial value to the goods.”

So, for a shape to be registered, it must not have any functionality for the product itself. Even before the 1999 act, it was possible for a shape to be registered in India, as evidenced in the case of *MRF Ltd. v. Metro Tyres Ltd.*,⁸⁸ wherein the plaintiff was granted injunction as against the defendant from using similar patterns in their tyres, as it was likely to cause confusion amongst the consumers regarding origin of the product.

In the case of *Gorbatschow Wodka KG v. John Distilleries Ltd.*,⁸⁹ the unique shape of the bottle of vodka made by plaintiff was held to be a trademark as the court noted that it was distinctive in nature and contributed to the goodwill of the plaintiff.

The Coca-Cola bottle and Zippo lighters also enjoy similar types of trademark protection in India.

Even though sound, shape, colours and related terms do find some sort of mention under the Indian statutes on trademark, other kinds of unconventional marks such as scent, taste, touch, movement marks etc. do not, and hence with the mandate of graphical representation requirement in place via Section 2(1)(zb) of trademark act, 1999 read with Section 26(1) of trademark rules, 2017, it is very difficult for registration of trademarks in these categories. So even if a mark in these categories is distinct enough in

⁸⁶ *Colgate Palmolive Co. v. Anchor Health and Beauty Care Pvt. Ltd.*, (2003) DLT 51.

⁸⁷ *Christian Louboutin Sas v. Abu Baker and Ors.*, (2018) 250 DLT 475

⁸⁸ *MRF Ltd. v. Metro Tyres Ltd.*, 1990 PTC 101.

⁸⁹ *Gorbatschow Wodka KG v. John Distilleries Ltd.*, 2011 (47) PTC 100 (Bom).

the minds of consumers and may have attained a secondary meaning, it would be unlikely for it to be registered under Indian laws, and it is here a lacuna exists because of the fact that technological advancements and marketing strategies of brands have resulted into creation of many categories that may help in distinguishing one brand or product from other, and those include sound, smell, taste, touch, movement marks which the Indian law has failed to reflect.

It is not that there have been no registrations in these categories as well, as Nokia's connecting hand motion is a valid trademark registered in India in 2003. Similar motion mark resides with the Brand Toshiba as well. Hotel Taj Mahal was granted trademark protection for its unique and distinct design.⁹⁰ But the fact remains that these examples are only exceptional cases of registration and hence do not reflect the actual backward position of Indian law on the subject matter.

Conclusion and Recommendations

Firstly, as mentioned earlier, TRIPs don't mandate a graphical representation requirement onto the member states, so there's a variety of application (*US not mandating v. India mandating*). It's also been discussed that nowadays features such as scent, taste, shape are capable factors of distinguishing one brand/product from another, and even though some of these new categories have been accommodated via Trademark rules, 2017 and Draft manual of Trademark Practice and Procedure, Indian law still falls behind in its application.

As a result, there have been very limited cases of successful registrations in India related to unconventional marks.

To address these developments, there have been calls to amend the Trademarks Act, 1999 to better incorporate unconventional trademarks. These calls for amendment have been based on the need for a more comprehensive and modern legal framework that would provide greater protection for unconventional trademarks and better align with international trademark laws and practices. Such amendments could include clarifying the criteria for distinctiveness of unconventional trademarks, providing clearer guidelines for the graphical representation of unconventional trademarks, and ensuring that the legal framework provides adequate protection against infringement and other unauthorized uses of unconventional trademarks. In summary, while the Trademarks Act, 1999 provides a framework for registering unconventional trademarks in India, there is a need to update and amend the law to reflect the latest developments in technology and the increasing use of unconventional trademarks.

Accordingly, the following recommendations are presented-

⁹⁰ Kenneth L Port, On Non-Traditional Trademarks, William Mitchell College of Law Legal Studies Research Paper Series, <https://ssrn.com/abstract=1564230>.

- The requirement of graphical representation at least in cases related to sensory marks should not be a mandate for registration given the criteria of distinctiveness is satisfied though it could be used as an indicative feature similar to US.
- These different domestic positions of law are also an impediment to registration of international brands and products and hence a uniform policy that eases registration in multiple jurisdictions is necessary.



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**PROTECTING FINANCIAL INNOVATIONS: INTELLECTUAL PROPERTY
RIGHTS IN THE AGE OF DIGITAL BANKING IN INDIA**

Aranya Nath⁹¹ & Anisha Sen⁹²

Abstract

From the age of technology till the present age of hustling humans, the perennial affair between life and technology has stood against the stubbornness of time. Artificial Intelligence plays a significant role in the modernization of the banking sector through technological advances. Technology advances a new era of financial services, with enormous repercussions for customer satisfaction, operational efficiency, and competition. In India, protecting these digital banking innovations through effective intellectual property rights (IPR) regimes is essential. The objective of the research is to look into the present scenario of intellectual property rights in India's online banking sector, assess existing barriers, and recommend methods for enhancing the ownership and monetization of financial innovation. This study adopts a qualitative research methodology here data is compiled from a comprehensive review of academic literature, industry reports, legal documents, and case studies on IPR in the financial sector. Comparative analysis with international IPR frameworks provides a benchmark for assessing India's position and identifying potential areas for improvement. The authors in this chapter find that India has made strides in developing intellectual property rights (IPR) regulations, but obstacles remain in securing digital banking inventions. Present laws include regulatory gaps that prevent them from properly addressing such specific difficulties, leading to inadequate safeguards and implementation. A precise balance between innovation and regulation is required since too strict restrictions can impede invention. Lack of understanding of intellectual property rights and protection measures among financial institutions and startups is also a source of worry. India falls behind industrialized countries regarding intellectual property enforcement and protection procedures, emphasizing the need for global best practices. This study's conclusions have substantial practical consequences for politicians,

⁹¹ Ph.D Scholar, Damodaram Sanjivayya National Law University, Visakhapatnam.

⁹² BA LLB fourth Year, School of Law, KIIT University, Bhubaneswar.

financial institutions, and entrepreneurs in India. Policymakers may use the findings to improve and reinforce intellectual property rules, ensuring they are strong enough to safeguard digital banking advances. Increased knowledge and understanding of intellectual property rights (IPR) may help financial companies and entrepreneurs safeguard their ideas and achieve a competitive advantage. Furthermore, implementing best practices based on global standards will help India's standing in the international financial market. Finally, while concluding the chapter, the authors have taken the liberty to gauge the feasibility and accuracy of the capacity of the current information on intellectual property rights (IPR) in digital banking in India. It provides unique insights into the issues and possibilities involved with safeguarding financial innovations in an increasingly digitalized economy. The study's findings inform future research and policy development targeted at establishing an environment conducive to innovation yet protecting sufficient intellectual property protection.

Keywords: Digital Banking, Intellectual Property Rights (IPR), Financial Innovations, India, Regulatory Frameworks

Introduction

Digital Banking or be better we can say Financial services in technology medium referred to as “Fintech” which has expanded in information science integrating innovative and artistic services, company strategies, and service providers. As it’s booming in today’s tech-based era the FinTech business could establish new markets or give an edge in competition over established competitors. Prominent financial institutions, insurance companies, hedging fund managers, investment companies, rating services, audit and accounting firms, regulators, scientific business entities, consortiums, non-profit organizations, and start-ups might all be impacted.

In this ever-changing world, intellectual property (IP) rights are critical to supporting innovation and preserving the numerous technical innovations emerging from the fintech sector. IP rights including patents, copyrights, trademarks, and trade secrets serve as essential equipment for protecting exclusive technology, software solutions, and innovative business models. For fintech firms, strong intellectual property protection is critical not just for sustaining a competitive advantage, but for attracting investment and fostering more innovation. As digital banking evolves, it's becoming more essential to

recognize and navigate the complexity of intellectual property rights to secure and leverage technical developments⁹³.

Fintech relies on technology. With technology firmly embedded in providing financial goods and services to end users, safeguarding Intellectual Property (IP) assets has become a fundamental priority for fintech organizations seeking to optimize commercial value and establish a digital transformation plan. Fintech companies & financial entities might develop technological equipment in-house or buy it from other companies, team up with vendors & competitors, or acquire entities involved with fintech innovation.

The authors attempt to understand the reason behind such an enhancement in its demand and also, the impact that it has had upon the management strategies improvised to deal with the IP. Here is currently no developed significance for this term. It had previously been linked with computer technology used in the spine systems of banks, financial institutions, and trading organizations. However, it is currently offering more consumer-focused choices, such as chatbots and AI interactions, to assist consumers with straightforward tasks including identifying fraudulent activity and operational and human expenditure management. Digital currencies, cloud computing, data and analytics, mobile platforms, the Internet of Things, and security are among its most significant enabling technologies.

There are now over 2100 FinTech enterprises in India, the bulk of which were established during the last five years. It received more than \$8 billion in investments within its prior financial period.

This research will look at the nexus of intellectual property and digital banking in India, there with an emphasis on the challenges and opportunities involved with safeguarding financial innovations.⁹⁴

Objectives of the research

To examine the existing state of IP protection in the fintech industry, identify important concerns and gaps, and make specific recommendations for improving IP frameworks. By exploring case studies and contrasting viewpoints, this research hopes to provide beneficial knowledge for fintech companies, policymakers, and legal luminaries, eventually leading to a safer and more creative digital financial services ecosystem in India.

⁹³ Erik Feyen et al., *Fintech and the Digital Transformation of Financial Services: Implications for Market Structure and Public Policy*.

⁹⁴ Aishwaryasandeeep, *The Fintech Revolution in India: A Look at the Intellectual Property Trend - Aishwarya Sandeep-Parenting and Law*, (2023), <https://aishwaryasandeeep.in/the-fintech-revolution-in-india-a-look-at-the-intellectual-property-trend/>, <https://aishwaryasandeeep.in/the-fintech-revolution-in-india-a-look-at-the-intellectual-property-trend/> (last visited Aug 15, 2024).

Digital Banking Revolution

Digital banking is the utilization of the Internet and electronic systems to perform numerous banking activities and services, including checking account balances, moving payments, making transactions, applying for loans, and more. It reduces the need for consumers to physically visit brick-and-mortar banking locations by letting them access and manage their accounts through websites, mobile applications, and other online channels. The approach provides better ease and accessibility, allowing financial services to be accessed anytime from any location with an internet connection. Digital banking, an innovative movement in the financial industry, has changed the way people and organizations manage their finances. Digital banking, frequently referred to as electronic banking or online banking, marks an important transition out of conventional in-person banking services and towards an age of technology in which economic services and functions are handled electronically. At its foundation, electronic banking uses electronic means such as websites, smartphone applications, and even social media platforms to give users easy and fast access to various financial services. It includes tracking account balances, moving cash between accounts, paying bills, applying for loans, and investing.

Digital Banking Overview

The Indian digital banking scene has changed dramatically from the late 1990s to the early 2000s, introducing the Unified Payments Interface (UPI) in 2016. This technology revolutionized digital payments by allowing for quick and smooth financial transfers between bank accounts via mobile applications. The Indian government's push for a digital economy, which includes projects such as “Digital India” and the “Jan Dhan Yojana,” helped accelerate the adoption of digital banking. Fintech businesses developed in the mid-2010s, providing new payment, lending, and financial administration services while making money⁹⁵ on India's massive unbanked and underbanked populations. The pandemic in 2020 emphasized the need for digital banking, as consumers turned to Internet transactions owing to lockdowns and safety concerns. Traditional banks have also embraced the digital change, improving their online and m-banking services.

The Reserve Bank of India (RBI) played a significant impact in developing the digital banking ecosystem by establishing policies and standards to protect the security of digital transactions and client data.

The need for digital banking in India became apparent in the early 2000s, as the country's economy expanded fast and there was a growing desire for ease and accessible financial services. Once

⁹⁵ Evolution of Digital Marketing | History of Digital Marketing and it's Future in 2024, <https://www.simplilearn.com/history-and-evolution-of-digital-marketing-article> (last visited Jun 1, 2024).

technology and internet access became more widely available, banks and financial institutions realized the opportunity to provide online banking solutions to meet changing client expectations, which led to the development and acceptance of digital banking services in India.

Sources of Digital Banking & Key Technologies

Key technologies have been critical in moving this transformation along. Artificial intelligence (AI) is at the forefront, improving client experiences with tailored services, fraud detection, and automated financial advising. AI-powered chatbots and virtual assistants simplify client interactions, while machine learning algorithms improve credit risk assessment and transaction monitoring. Blockchain technology, with the potential for safety and openness, is revolutionizing payments and document management. Its decentralized structure is especially beneficial for improving the integrity and efficiency of online payments and cross-border transactions. Mobile solutions, which include mobile banking applications and digital wallets, have become crucial to the user experience, putting frictionless transactions and financial management capabilities at users' fingertips. The integration of new technologies is not only altering traditional banking procedures but also leading the way for innovative financial products and services.

- **Mobile Banking Applications:** Many Indian banks have mobile banking applications, which allow clients to access numerous financial services through smartphones.
- **Internet Banking:** Banks provide Internet banking services on their websites, allowing consumers to conduct financial transactions online.⁹⁶
- **Unified Payments Interface (UPI):** UPI is a real-time payment system designed by the National Payments Corporation of India (NPCI) that enables immediate financial transfers between banks using mobile devices.
- **Mobile wallets including Paytm, Google Pay, PhonePe, and others** have popularity as digital banking platforms, allowing users to store money and make several payments.
- **Online Payment Gateways:** Razorpay, and CC-Avenue, among other payment platforms, allow e-commerce websites and enterprises to perform safe online transactions.
- **National Electronic Funds Transfer (NEFT) and Real-time Gross Settlement (RTGS):** These technologies enable electronic financial transfers between banks for numerous transactions. NEFT is a delayed settlement system that can handle small and big transactions, whereas RTGS is a real-

⁹⁶ Navleen Kaur, Supriya Sahdev & Dr Sharma, *Banking 4.0: -The Influence of Artificial Intelligence on the Banking Industry & How AI Is Changing the Face of Modern Day Banks*, 11 INTERNATIONAL JOURNAL OF MANAGEMENT 577 (2020).

time settlement system designed for high-value transactions. The selection between NEFT and RTGS is based on the transaction size, urgency, and the individual needs of the sender and receiver.

- The Bharat Interface for Money (BHIM) app allows users to make payments via the UPI application. Anyone with a cell phone number, debit card, and a valid bank account can use the BHIM app.

Major players and market dynamics

The digital banking ecosystem in India is characterized by a diversified set of significant firms and changing market dynamics. Traditional banks, such as the State Bank of India and ICICI Bank, are embracing digital transformation to remain competitive, developing their digital platforms and investing in fintech collaborations. At the same time, a thriving ecosystem of fintech firms, like Paytm, PhonePe, and Razorpay, is disrupting the industry with innovative solutions that threaten traditional banking practices. These fintech businesses are pushing innovation and competition, frequently using venture funding to grow quickly and launch cutting-edge technology. The dynamic interplay between major financial institutions and nimble startups is resulting in a vibrant and competitive industry marked by fast technical breakthroughs and shifting consumer preferences. This competitive environment encourages a culture of continual innovation, which ultimately benefits customers by providing more options and better financial services.

Importance of Intellectual Property Rights in the FinTech Industry

Intellectual Property Rights are defined as the exclusive legal rights that are granted to the creator and inventor, to safeguard their original work and inventions. There are a few types of Intellectual Property Rights, that are described below.⁹⁷

Copyright deals with the protection of original creative work of authorships, literary work, dramatic work, musical work, and artistic work. Trademark is related to the protection of brand names, logos, and other identifiers, it also distinguishes the goods and services of one company from that of the other. Patents deal with the protection of technological innovations and inventions and grant exclusive rights to the patent holder to use, make, sell, and distribute their invention for a specific period. Trade secrets protect the confidential business information that provides a competitive edge. All of these ensure fair competition and encourage innovations in the marketplace.

⁹⁷ www.ETLegalWorld.com, *Intellectual Property - Latest Intellectual Property, Information & Updates - Legal -ET LegalWorld*, ETLEGALWORLD.COM, <https://legal.economicstimes.indiatimes.com/tag/intellectual+property> (last visited Aug 15, 2024).

Relevance of IPR in Financial Innovations

The protection of Intellectual Property Rights has become increasingly crucial for the rapidly evolving digital banking landscape, which provides incentivizing innovative techniques to reward and recognize further research and development. Fintech companies and financial institutions can maintain a competitive edge and benefit from holding exclusive rights that prevent the unauthorized use of their innovations, this is only possible if the creations are protected through Intellectual Property rights. It fosters a competitive environment along with safeguarding the interests of both innovators and creators. There is a monetizing opportunity available through licensing agreements, partnerships, and business arrangements, with applications like mobile banking, digital payment, and AI advisory there has been a huge development in the research and development.

FinTech innovations can be complicated in nature, since a single solution may consist of several interconnected hardware and software components with sophisticated mathematical algorithms, some of which may execute on a backend server and others on the consumer device. Various IPRs may coexist in the same solution, depending on the nature of the technology and invention involved, including:⁹⁸

1. Software Source code

Trade secret protection for software/source code is available provided it fits specific legal standards, such as maintaining secrecy and limiting public access. This protection is provided automatically without registration and may be lost if the owner fails to take proper precautions. India does not have particular legislation for trade secret protection, yet it is granted sufficient safeguarding via numerous legal rulings. Unauthorized disclosure, acquisition, or use of trade secret-protected source code may result in civil and criminal penalties. The creator of a software copyright also has the “commercial rental right.” Unauthorized storage, replication, distribution of duplicates, or adaption of copyrighted software may constitute a copyright infringement within a FinTech application.

2. Algorithm

An algorithm is a software component that uses a set of rules to solve a specific issue. It is usual for algorithms in FinTech solutions to include mathematical formulae and, in instances, artificial intelligence (AI) as an element of the “secret sauce” behind the solution. An algorithm may be protected as a trade secret, giving the owner the right to seek legal remedies (depending on the country) against disclosure and certain unfair business acts by workers and third parties.

⁹⁸ admin, *Intellectual Property Rights For Fintech / IIPRD*, (Oct. 14, 2022), <https://www.iiprd.com/intellectual-property-rights-for-fintech/> (last visited Aug 15, 2024).

3. Creativity Base

The creative base of a FinTech solution is protected by patents, which go beyond the literal representation of computer instructions or software code. This protection is critical because it represents the technical answer to the current problem or difficulty. FinTech innovations are generally concerned with computer-implemented processes, which entail technical operations carried out by a computing device and its associated systems and devices. Copyright protects computer code, but not the original technological concept or method connected with FinTech invention. A patent protects the innovative core, preventing a third party from exploiting the protected idea, even if the computer program was created separately or independently.

4. Visual Design and Graphical User Interface (GUI)

Industrial layouts are another type of intellectual property that may be used to protect the visual elements of tangible goods and products including payment cards, equipment, and accessories, as well as graphical user interfaces for computer or mobile apps. To provide protection, an industrial design must be registered.

Patent Challenges in Financial Technologies

Traditional banks continue to dominate the financial sector, but with the introduction of new technologies including AI and machine learning, Fintech's arose as a merger of financial operations and technology solutions. FinTech's started in India during 2007-08 and increased prominence during the Corona pandemic, which limited human travel and forced people to rely on technology-based financial solutions. Based on research, youngsters are becoming more intrigued by financial services offered by IT companies, and electronic banking is predicted to become the most popular alternative to conventional financial services.⁹⁹ Financial services are widely accessible, simpler, and available 24 hours a day, seven days a week, driving the sector's exponential expansion. Financial services strongly dominate start-ups, and they're seen as the predecessors of India's desire to become a production-led sector. New fintech companies must have an equitable stake in the market while also protecting service providers and consumers from illegal activities such as data theft, privacy control, and laundering cash.¹⁰⁰

Fintech's are idea- and technology-driven enterprises, and intellectual theft is frequent due to increased competitiveness. To flourish, fintech start-ups must protect their idea, innovation, and identity.

⁹⁹ Brigitte Vézina, *Topic 1: Introduction to Intellectual Property*.

¹⁰⁰ History of Indian Patent System | About Us | Intellectual Property India | Government of India, <https://ipindia.gov.in/history-of-indian-patent-system.htm> (last visited Aug 15, 2024).

Development of Fintech's

FinTech is one of the most developing ways, driven by the fast use of cutting-edge technology in the financial industry, including money transfers, digital payments, financing platforms, alternative loans, and financial software. Here are some of the primary trends that explain why Fintech is rising.

Technology

The introduction of new technologies such as AI, ML, AR/VR, Blockchain, and Cloud Computing has significantly accelerated the expansion of the fintech business. These technologies have altered financial services, enabling them to automate operations that were previously undertaken by humans. This has resulted in higher efficiency and enabled conventional banks to focus on innovation and strategy.¹⁰¹

Fintech services have also made traditional banks more cost-effective, allowing them to offer digital banking features while maintaining high production levels. This has resulted in lower employee requirements and more efficiency. Such advantages are driving growth in the worldwide fintech business. Fintech adoption has also made financial services more accessible to everyone, with banks now offering a variety of services through smartphone applications and websites. It has eradicated intermediaries including bank managers and brokers, resulting in direct utilization of financial services and information. In general, fintech has had a substantial influence on the financial sector's adaptability and growth.

COVID-Driven Electronic Payments:

Fintech investment has seen significant benefits following the epidemic. COVID has radically transformed the FinTech sector. In 2020, financial institutions experienced the largest wave of new accounts in mobile payment and banking apps. Governments throughout the world are supporting contactless payments to protect against infection with COVID. Furthermore, the rising use of eCommerce, telemedicine, and e-learning has added to the need for online payments.

Regulatory Agencies

Regulations are a key driver of fintech growth. Every institute in the financial industry is subject to regulatory duties, although some of these rules are more flexible, allowing financial technology businesses to develop new fintech products with more flexibility. Furthermore, governments in many different nations are actively pushing digital banking.

¹⁰¹ Insights into the Rise of AI: Patent Trends for 2023, <https://indiaai.gov.in/article/insights-into-the-rise-of-ai-patent-trends-for-2023> (last visited Aug 15, 2024).

Development across Conventional Financial Services

With the growing need for digital banking solutions, several financial technology businesses are looking into new technologies and services that may provide basic banking services at cheaper costs. These companies include a specialized R&D part to satisfy exploring approaches to a new disruptive, high-growth technology. The basic purpose of all of this is to provide customers with greater foundations from which to conduct their banking activities while also assisting banks with fintech funding.¹⁰²

Maturing

As the fintech business grows, a new phase of growth emerges. The financial technology business has matured because financial software development companies are growing more sophisticated and have better access to funding. In addition, the organizations are looking for fintech experts who can work with cutting-edge technology such as artificial intelligence, blockchain, and cloud computing in developing financial applications for customers.

What does a patent protect?

A patent is an exclusive right awarded for an idea, product, or technique that introduces a new way of doing something or gives a novel technological solution to a problem. Any invention must meet specific criteria to be patentable, including usefulness, novelty, and non-obviousness. It protects the innovation of the patent owner for a limited time, i.e. 20 years.

Other than software in its computer language form, all other features, such as hardware, software-attached hardware, semiconductive materials, specific machine arrangements, and so on, are eligible for patent.

Patents for FinTech's

While science, art, and technology drive human development, Intellectual Property (IP) protects individual inventiveness through IP rights. Intellectual property rights have encouraged artists, innovators, and inventors to tackle real-world issues using their ideas and ingenuity. The Indian Patent Office (IPO) does not have distinct criteria for evaluating AI-related discoveries.¹⁰³ These innovations are reviewed by the “*Computer-Related Innovations Rules 2017 (CRI rules)*. Which is, AI-related innovations are evaluated using the subject matter exclusions outlined in Section 3(k) of the *Indian Patents Act, 1970*.”

¹⁰² amlegals, *Challenges in Patent Development and Patent Litigation in India*, LAW FIRM IN AHMEDABAD (Dec. 6, 2021), <https://amlegals.com/challenges-in-patent-development-and-patent-litigation-in-india/> (last visited Aug 15, 2024).

¹⁰³ A1999-47.pdf, <https://www.indiacode.nic.in/bitstream/123456789/1993/1/A1999-47.pdf> (last visited Aug 15, 2024).

Benefits of Patents in Fintech

- Increase market share.
- Patent filings offer considerable value and can attract investors.
- Patents, unlike copyrights, can protect the functioning of an innovation. A FinTech patent forbids third parties from using the method, process, or device covered by the invention. This gives patent holders a monopoly on their inventions in terms of commercialization or licensing. It generates an attractive revenue stream and raises the company's profile significantly.¹⁰⁴
- Because changes in FinTech legislation are highly dynamic, it is usually recommended to obtain a patent because it allows for some flexibility in the techniques of using technology.
- A patent owner has the following alternatives to assert their rights in India:
 - An Anton Piller Order - the legal system may nominate a local commissioner on the plaintiff's request or otherwise to retain or seal infringing items or accounts on the defendant's premises.
 - A Mareva Injunction - the Court can prevent the Defendant from disposing of its assets inside India until the trial concludes or judgment in the patent infringement case is rendered; or
 - A John Doe Order - the Court may order a search and seizure of an unknown Defendant, with the help of the local commissioner and police, if necessary, to raid any premises where infringing actions are alleged to be taking place.

Challenges Encountered in the Development of Patents in India

- During the patent examination procedure, the patent office reviews the application to ensure that the invention fits all applicable statutory criteria. In fintech, this frequently entails a thorough examination of whether the innovation is patentable subject matter. For example, in India, the Patents Act of 1970 prohibits business processes, mathematical procedures, and algorithms from being patentable unless they result in a technological impact on an answer for a technical issue. It presents a challenge for financial advances, which are frequently based on algorithms or business procedures, in demonstrating that they provide a technological answer.
- According to “*Section 104 of the Act, a District Court is the initial occurrence court in cases involving patent infringement claims. Furthermore, if the Defendant lodges a counter-claim for patent cancellation, the matter would be referred to the High Court for determination. Within the original jurisdiction, only five High Courts can hear lawsuits within their initial stages.*” Furthermore, under the Commercial Courts Act, not all District Courts have jurisdiction over

¹⁰⁴ Home | PatentPC, <https://patentpc.com/> (last visited Aug 15, 2024).

business litigation, which must be handled by the High Court. One of the most significant obstacles in patent litigation is the absence of judicial officers capable of dealing with technical patent worries. The key issues associated with patent litigation are:

- Enforcing patent rights is hampered by a backlog of litigation in the courts. Though the “*Commercial Courts Act in 2015*” was meant to speed up IP processes, the substantial queue remains an obstacle to invention conflicts quickly.
- Subject matter experts: “*Section 115 of the Act authorizes the appointment of an advisor to assist the courts in providing technical assistance and direction. However, because such an appointment is rarely utilized, it has no impact on the decision-making process. The clause offers a chance to apply technical and legal skills, but it has yet to be utilized.*”
- Opinions differ: Patent awarding has a subjective aspect, which is at the discretion of the patent examiner. However, in the context of litigation, such subjectivity merely adds to the complexity and length of the proceedings. Understanding the notion of IPR as a whole necessitates technical understanding, which is rarely addressed in litigation. As a result, disagreements on subjective factors might lead to issues, which will further exacerbate litigation. “*Section 115 of the Act stipulates that a scientific adviser might be appointed to assist the courts in offering technical views as needed. However, the courts often use such a provision.*¹⁰⁵”

Case Study on the Power of Fintech Innovation

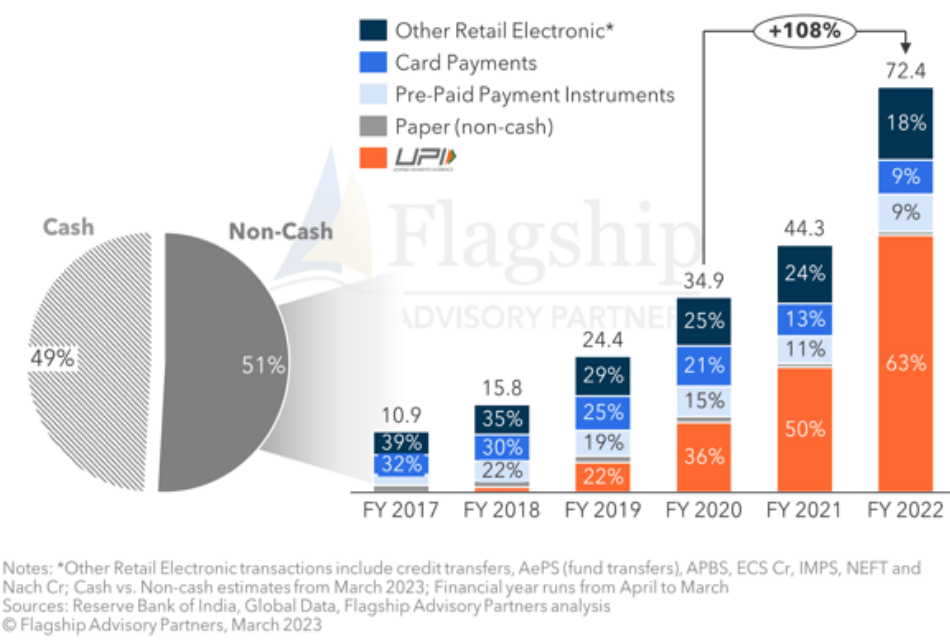
a. Mobile Payment Disruption

Before UPI, Indian Fintech’s were already propelling the industry toward mobile payments, beginning with the launch of digital wallets powered by prepaid accounts, such as the Paytm Wallet, in 2014. Such mobile wallets were spurred by India's demonetization program, a large-scale macroeconomic operation launched by the government to eliminate corruption and promote digital payments. In November 2016, the Indian government abruptly stopped accepting all old currency notes (greater than Rs. 500) to replace them with new ones. The approach resulted in an abundance of currencies in the country, driving customers to seek digital alternatives. It presented an ideal opportunity for fintech’s like Paytm to fill the gap by providing digital solutions for both consumers

¹⁰⁵ Sagacious IP-Editorial Team, *Why Is It Important to File Patents in FinTech / Blog*, SAGACIOUS IP (May 27, 2020), <https://sagaciousresearch.com/blog/why-important-file-patents-fintech/> (last visited Aug 15, 2024).

and merchants. As customers become more comfortable with mobile payments, the popularity of digital wallets increases dramatically.¹⁰⁶

Figure 1: Retail Payments in India
(FY 2017-2022; by number of transactions in bil.; payment mix by instrument)



b. UPI Payments Explained

The advent of UPI accelerated the speed of innovation and disruption in India. The National Payments Corporation of India (created by the Reserve Bank of India) unveiled the Unified Payments Interface (UPI) in 2016. UPI is an account-to-account payment system that allows consumers and merchants to make and receive payments with real-time settlement. Currently, UPI accounts for about two out of every three retail non-cash transactions in India. UPI is not an end-user product (i.e., a mobile app), but rather a payment network used by Fintech’s and banks to create and distribute mobile apps that enable UPI payments. Users may simply enable this payment option by generating a unique UPI identification key that is connected to their bank account and mobile phone. Many mobile payment applications, like PhonePe, Google Pay, and Paytm (among others), allow users to register or sign up for UPI and initiate or receive payments to and from their bank accounts. For P2P transactions, customers may just utilize their cell phone connected to a UPI ID to send money instantaneously, keeping the user’s interface especially fast and easy.

¹⁰⁶ India: Case Study on the Power of Fintech Innovation, <https://insights.flagshipadvisorypartners.com/india-case-study-on-the-power-of-fintech-innovation> (last visited Aug 15, 2024).

Copyright and Software Protection in Digital Banking

Copyright is assigned at the point that the item is created. It presents numerous advantages for individuals who contribute or produce it, but it also constitutes concerns for people who control the information and want to track public interest in their efforts, which are also made public. Until recently, writers could have permitted artists to publish their works. Users of this domain can freely perceive and use the protected content. When other people who utilize intellectual property accuse the owners of violating their rights, the owners are always allowed to defend their rights. Because software is a type of copyrighted work and is considered high technology, regulations governing software intellectual property rights are sometimes inadequate. Most countries have laws regarding copyright that protect software intellectual property. Patents can be filed for designing software values that have a strong connection to hardware. Although contemporary software protection measures address a significant amount of the security of computer software and systems, there are still specific vulnerabilities.¹⁰⁷

Copyright Legislation- Overview

Copyright is an intellectual property right granted to writers for their literary and creative works. It enables both new and seasoned artists to exhibit their work to the world while also providing a self-description. Use the copyright symbol (©) or the phrase “copyright” near the beginning of the notice. The notification should indicate the year of publication, but in cases where the information frequently changes and covers several decades, the entire period might be displayed. Copyright applies to computer code, graphic interface components, music, video, and API structure. Copyright extends to specifications such as source code, pseudo code, machine code, and firmware/hardware. Copyright is a valuable asset for Fintech companies, especially when the software design provides computational and usability benefits. To improve security, Fintech businesses might use digital locks on replicas of their works, as circumventing these locks may be unlawful in some areas. Erroneously integrating third-party copyright should set off concerns since it might jeopardize technical ownership and freedom of operation.¹⁰⁸

¹⁰⁷ Copyright Protection for Computer Software An Indian Prospective - Copyright - Intellectual Property - India, <https://www.mondaq.com/india/copyright/262564/copyright-protection-for-computer-software-an-indian-prospective> (last visited Aug 15, 2024).

¹⁰⁸ Copyright Protection Of Software And Copyright Notice: Why Is It Important?, CLEAR TAX, <https://cleartax.in/s/copyright-protection-software> (last visited Aug 15, 2024).

Impact of Software Licensing in Digital Banking

Software licensing is a significant instrument for controlling the usage and distribution of financial software in the digital banking sector. Licenses specify the rules under which software can be used, updated, and distributed, giving financial institutions control over how their software is used by other parties. Several types of software licenses apply to digital banking, including proprietary and open-source licenses. Proprietary software licenses often limit access to the source code and users' rights to alter or redistribute the product. Financial organizations that place a premium on security, control, and monetization of their software products frequently favour this arrangement.¹⁰⁹ Open-source licenses, on the other hand, empower users to access, alter, and share source code, encouraging cooperation and innovation in the financial technology sector. However, open-source software brings several issues, such as ensuring compliance with licensing conditions and the possibility of security flaws if the software is not adequately maintained. The decision to use open-source versus proprietary software has important ramifications for digital banking innovation. While proprietary software offers more control and security, open-source software could encourage creativity by allowing developers to build on current technology and contribute to the growth of the financial ecosystem.¹¹⁰

Barriers to Implementing Copyright within the Financial Sector

Enforcing copyright in the financial industry involves several difficulties, notably regarding the issue of software infringement and illegal usage. Software piracy, or the unlawful copying and distribution of software, is a widespread problem that weakens the value of intellectual works and reduces the income of financial organizations that engage in software development. Unauthorized software utilization in the digital banking industry can pose substantial security issues since pirated software is more prone to cyberattacks and infection. Financial institutions must consequently employ strong tactics to prevent and combat software piracy, such as the use of digital rights management (DRM) technology¹¹¹, frequent audits, and legal action against infringers. In India, the legal framework for protecting copyright comprises the “Copyright Act of 1957¹¹²”, which offers consequences for copyright violation, such as injunctions, damages, and monetary penalties. Still, the efficacy of these remedies is dependent on financial institutions' capacity to discover and establish cases of infringement, which may be difficult

¹⁰⁹ Rights in Fintech Data - Finance Unlocked, <https://financeunlocked.com/videos/fintech-data-rights-in-data-1-4> (last visited Aug 15, 2024).

¹¹⁰ Software Intellectual Property 101: IP Protection & More | Thales, <https://cpl.thalesgroup.com/software-monetization/protecting-software-intellectual-property> (last visited Aug 15, 2024).

¹¹¹ Digital Rights Management (DRM), <https://studylib.net/doc/5217347/digital-rights-management--drm-> (last visited Dec 26, 2023).

¹¹² Copyright basics - 10 facts everyone should know about copyright, <https://www.linkedin.com/pulse/copyright-basics-10-facts-everyone-should-know-azeezat-periola> (last visited Aug 15, 2024).

given the worldwide nature of software distribution and the complexity of contemporary pirate strategies. Furthermore, the high speed of technological development in the financial industry needs the continuous modification of regulatory techniques to keep up with emerging types of infringement and illegal use.

Trademarks and Branding in Digital Banking

Trademarks are essential for developing brand identification and generating trust in the financial sector, where customer trust is critical. In the digital banking scene, trademarks protect the names, logos, slogans, and other brand characteristics that set a financial institution's products and services apart from rivals. A powerful trademark is not only a statement of quality and dependability, but it also plays an important role in marketing and client retention. As digital banking systems gain popularity, the importance of trademarks in keeping a consistent and identifiable brand across several digital channels cannot be emphasized. Trademarks assist consumers in distinguishing between financial services, building brand loyalty, and safeguarding the reputation of a financial institution in an increasingly competitive market.

Developing a digital brand identity

- Designing an effective digital brand identity requires numerous steps:
- Understanding the Market and Audience: Thorough market research is necessary to grasp the intended audience's demands and preferences. This aids in developing a brand identity that resonates with the target audience.
- Innovative Branding Strategies: To stand out in the digital arena, brands must be inventive. This involves employing distinctive marketing methods, compelling content, and new digital experiences.
- Using Digital Tools Effectively: The selection & usage of digital tools - such as blogs, social media accounts, e-commerce sites, and so on - is critical in brand development.¹¹³

Trademark Registration in India

The trademark registration procedure in India consists of various phases aimed at guaranteeing that a brand is both unique and legally protected. The procedure begins with a trademark search to see if the intended mark is already in use or registered by another organization. If the mark is accessible, the applicant may file a trademark application with the Indian Trademark Office, which contains

¹¹³ Christopher Buccafusco, Jonathan S Masur & Mark P McKenna, *Competition and Congestion in Trademark Law*.

information about the mark, the products or services it represents, and the applicant's intention to use the mark. Once filed, the application is evaluated by the Trademark Office for legality and any problems with existing trademarks.¹¹⁴

The Use of Trademarks in Online Branding for Startups

Securing a trademark early on is critical for entrepreneurs, particularly in the digital realm, where market saturation is rapid and ubiquitous. A trademark protects the brand while also providing a geographic and licensing advantage. In the digital era, when domain names and social media presence are crucial, brand protection becomes even more important.

Marketing Without Trademarks.

Branding in the digital environment entails more than simply registering a trademark. It entails creating a distinct identity and vision for the firm. Effective digital branding combines corporate and product branding methods. Branding is about connecting the brand with the company's basic principles, increasing its value, and providing a competitive advantage in the market.

To summarize, trademark and branding within the digital environment require negotiating a complicated terrain of legal, marketing, and technological problems. As the digital landscape evolves, companies must modify their tactics to preserve their trademarks and establish a strong digital identity. Companies may develop and thrive by recognizing the subtle aspects of online marketing and utilizing new methods.

Emerging Trends and Future Directions

Influence of new inventions on intellectual property rights in digital banking.

Blockchain, artificial intelligence (AI), and big data are fundamentally changing the digital banking sector, presenting both new possibilities and difficulties for intellectual property rights (IPR). Blockchain technology, with its decentralized and transparent nature, is transforming how financial transactions are done and recorded. This technology not only improves security and efficiency for online banking but also complicates the process of securing inventions produced on open and dispersed networks. Similarly, AI is propelling the creation of innovative financial goods and services, ranging from predictive analytics to automated trading platforms. However, AI-generated discoveries pose distinct issues for intellectual property rights, notably in assessing ownership and patentability of AI-driven ideas. Big data, which powers many AI applications, raises concerns about data ownership,

¹¹⁴ Trademark And Branding In The Digital Space - Trademark - Intellectual Property - India, <https://www.mondaq.com/india/trademark/1449856/trademark-and-branding-in-the-digital-space> (last visited Aug 15, 2024).

privacy, and the security of proprietary algorithms that analyze massive datasets. As these technologies grow more interwoven into financial institutions, established IPR regimes might be unable to keep up, demanding new approaches to intellectual property protection in an era when complexity and interconnectedness fuel innovation.

Regulatory Developments and Policy Implications

Recent developments in Indian intellectual property laws are influencing the protection of digital banking technologies, demonstrating the necessity to adapt to the changing technology landscape. The Indian government has launched many attempts to broaden its IPR protection, such as amendments to the Patents Act and attempts to simplify patent examination processes. These reforms are designed to encourage innovation in high-tech areas, including fintech, by establishing clearer regulations regarding what constitutes patentable subject matter, notably for software and business method patents. However, the quick speed of innovation in digital banking has revealed weaknesses in the present legal framework, such as the difficulties of protecting AI-driven innovations and the issues created by blockchain's decentralization. To address these issues, policymakers are increasingly focused on developing regulations that balance the need for robust IPR protection with the demands of a dynamic and fast-moving industry. Policy recommendations for improving IPR protection in the financial sector include enhancing collaboration between the government and the fintech industry, fostering greater awareness of IPR issues among innovators, and exploring new legal mechanisms for protecting AI and blockchain-based innovations. Additionally, there is a growing recognition of the need for international cooperation to harmonize IPR standards across borders, given the global nature of digital banking.¹¹⁵

International Perspectives on Intellectual Property Rights in Financial Innovations

A comparative review of IPR protection in major worldwide marketplaces finds considerable disparities in nations' approaches to financial invention protection. In the United States, for example, the patent system has historically been more accepting of software and business method patents, resulting in a significant amount of creativity in fintech. However, this has raised worries about patent thickets and the possibility of litigation stifling competition. In contrast, the European Union has taken a harder approach to patenting financial technology, requiring stronger evidence of a technological effect. It has affected the growth of fintech in Europe, where businesses frequently rely on trade secrets and trademarks to protect their discoveries.

¹¹⁵ IPR : game changer for fintech companies and start-ups - iPleaders, <https://blog.iplayers.in/ipr-game-changer-fintech-companies-start-ups/> (last visited Aug 15, 2024).

Conclusion

The study highlights comprehensive research providing valuable insight into the evolving landscape of digital banking in India and the robust IPR protection provided to it. The transformation in the digital banking sector has seen remarkable growth. The creation of vibrant ecosystems has been possible through the combination and non-banking facility that is driven by the product, service, and technology. As there has been a major source of competitive advantage through financial innovation that is helping to generate income for market participants, hence needs to be protected through IPR. Although there is an ambiguous legal interpretation and challenges in the current IPR ecosystem that have resulted in inefficient enforcement mechanisms, that can be improved through coordination among regulatory authorities. This research also shows the comparative analysis of the protection of IPR through an international perspective to help in adapting the changes learned from the countries and apply the proactive measures to strengthen the IPR framework. The research also shows the need for a multi-pronged approach to help reform and reinforce the IPR framework. It also recommends some policies that foster collaboration to ensure a balanced regulatory approach. The long-term sustainability is possible through the creation of new and transformative financial solutions that keep pace with the rapidly evolving digital banking sector in India. Although there has been a significant achievement in the digital banking sector in India with the protection of Intellectual Property Rights there has to be a lot more done to maintain its leadership position which can be gained by implementing international best practices and also by encouraging cooperation between stakeholders. The journey ahead would not be without challenges but with the help of a collective effort, the Indian financial sector has to overcome the challenges and solidify its position by bringing sustainable growth along with technological advancement.



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**EXPLORING THE STRUCTURE OF MODIFIED JOINT AUTHORSHIP
MODEL FOR AI-GENERATED CONTENT**

Adil Ameen¹¹⁶

Abstract

Intellectual Property Law aims to recognize and incentivize the efforts of all the stakeholders involved in the creative process. Under copyright law, the creator of copyrighted work is recognized as the author. Meanwhile, the doctrine of joint authorship recognizes multiple authors for a single creation when their contribution is significant to the creative process.

Authorship attribution is required to confer copyright protection, as it identifies the grantee of rights who would exercise them under such protection. The advent and advancement of AI have raised various legal complexities in conjunction with human contributions. One such concern is the attribution of authorship for AI-generated creative work when granting copyright protection. In this context, AI-generated content refers to creative works produced by humans with the assistance of generative AI. Among the various views on authorship attribution for AI-generated work, some argue that joint authorship should be conferred, granting equal rights to both AI and humans. However, this view has several inherent problems as AI is unable to fit into the existing legal framework. Moreover, granting equal rights to humans and AI is disproportionate, as human intelligence is fundamental to creativity, while AI merely enhances efficiency. Additionally, it undermines the role of human intelligence, which is central to copyright protection.

The use of AI is an integral part of modern society and restricting it could lead to economic and legal consequences. In light of the above discussion, this paper will first examine the challenges of granting joint authorship to AI-generated work, emphasizing the need for an alternative model. It then proposes and explores a modified joint authorship model to provide copyright protection for AI-generated content, ensuring balanced recognition of both AI and human contributions.

¹¹⁶ 4 th Year, B.A.LL.,B (Hons.) Student, Chanakya National Law University, Patna

Keywords: AI-Generated Content, Joint Authorship Model, Modified Authorship Structure, Artificial Intelligence Creativity, Intellectual Property Rights, Collaborative Content Creation

Introduction

“AI Spring” has arrived and is here to stay”.¹¹⁷

Artificial intelligence applications are enabling the construction of companion robots to assist overworked caretakers,¹¹⁸ analyze photos to identify potentially malignant cells,¹¹⁹ and assist in the prediction of the location and timing of the next major earthquake.¹²⁰ Additionally, AI systems can independently produce literary and artistic works, as well as new content or data that resembles content produced by humans, such as literature, music, or photographs.¹²¹ AI has been compared with the role played by electricity a century ago.¹²²

One type of AI is “Generative Artificial Intelligence.” It has been declared “a technological marvel that has ushered in a new era of creativity and innovation”.¹²³ It refers to the utilization of algorithms and models that empower machines to generate content with limited human intervention independently.¹²⁴ “Generative AI is a constellation of technologies that enable machines to act with higher levels of intelligence and emulate the human capabilities of sense, comprehend, and act”.¹²⁵ The capacity to learn from experience and upgrade itself accordingly enhances its utility and equates it with human capabilities. Advancement of AI has been taken hand in hand by the businesses to complement their work. The recent case of Jason M. Allen's "Théâtre D'opéra Spatial" winning first place in the digital division of the

117 National strategy for artificial intelligence - NITI aayog., pg-13 Available at: <https://www.niti.gov.in/sites/default/files/2023-03/National-Strategy-for-Artificial-Intelligence.pdf> (last visited on Dec 29, 2023)

118 K Purvis, “Meet Pepper the robot – Southend’s newest social care recruit” (The Guardian, 16 October 2017) <www.theguardian.com/social-care-network/2017/oct/16/pepper-robot-southend-social-care-recruit> (last visited on Dec 29, 2023) .

119 Al-shamasneh, ARM and Obaidallah, UHB, “Artificial intelligence techniques for cancer detection and classification: review study” (2017) 13 Eur Sci J 342 Google Scholar .

120 T Fuller and C Metz, “A.I. Is Helping Scientists Predict When and Where the Next Big Earthquake Will Be” (New York Times, 26 October 2018) <www.nytimes.com/2018/10/26/technology/earthquake-predictions-artificial-intelligence.html> (last visited on Dec 29, 2023).

121 Irina Buzu, Hacking Creativity – Authorship in the Digital Age, (2021), <https://www.internetjustsociety.org/hackingcreativity-authorship-in-the-digital-age> (last visited on Dec 29, 2023)

122 Supra note 1 at page 12.

123 Mike, ‘How Ai Is Revolutionising Product Design?’ (Nebulem Product Design,) <<https://nebulem.com/how-ai-is-revolutionising-product-design/>> (last visited on Dec 29, 2023)

124 Benjamin, A. India’s IP laws need to adapt to ai creativity, Bar and Bench - Indian Legal news. (last visited on Dec 29, 2023)

Available at: [https://www.barandbench.com/law-firms/view-point/indias-ip-laws-need-to-adapt-to-ai-creativity#:~:text=Generative%20Artificial%20Intelligence%20\(AI\)%20is,content%20with%20limited%20human%20intervention.](https://www.barandbench.com/law-firms/view-point/indias-ip-laws-need-to-adapt-to-ai-creativity#:~:text=Generative%20Artificial%20Intelligence%20(AI)%20is,content%20with%20limited%20human%20intervention.) (last visited on Dec 29, 2023)

125 Supra note 117 at page 12.

Colorado State Fair's annual art, competition¹²⁶ underscores the capability of these AI. It is peculiar for the reason that Jason Allen didn't use a brush or a lump of clay to produce his entry; instead, he used an AI program called Midjourney to transform text lines into incredibly lifelike visuals.¹²⁷ Consequently, It is nearly impossible to distinguish AI-generated content from human-generated stuff due to their enhanced quality.

After OpenAI released its ChatGPT system in November 2022, the use of AI-generated language increased significantly, and a novel wave of AI-written content farms is emerging.¹²⁸ Content generated with the help of Artificial intelligence is widespread on social media as well as in news articles.¹²⁹ Research indicates that 11.21% of all college projects and papers include information produced by artificial intelligence.¹³⁰ As No sphere of life is untouched by the intrusion of AI its regulation becomes pertinent.

AI is increasingly finding its way into different sectors, which avails numerous legal questions relative to ownership, legal responsibility, and regulation of IPR rules. IPR laws are aimed at protection of works of Intellectual property, stimulating the creation of new inventions, giving creators financial and time aid in creating objects. Thus, the interaction between AI and IPR laws is a complex issue with no simple solutions and calls for the reconsideration of the existing legal mechanisms. One of the key challenges in the intersection of AI and IPR laws is determining the ownership of AI-generated works. Traditional copyright laws grant protection to human creators, but when AI systems generate creative works, such as art, music, or literature, with human assistance it becomes unclear who should be considered the author or owner. Currently, in a few instances joint authorship is assigned for AI-generated work with human authors which means AI and humans have equal rights over the work.¹³¹ However, there is not yet a worldwide agreement on who gets to keep the rights to AI-created works' intellectual property. Some argue that the individual or organization that developed and deployed the AI should be the owner, while others suggest that the AI itself should be recognized as the creator. Certain specialists contend that

126 Roose, K. (2022). An A.I.-Generated Picture Won an Art Prize. Artists Aren't Happy. The New York Times. <https://www.nytimes.com/2022/09/02/technology/ai-artificial-intelligence-artists.html>

127 Wang, H. (2023) Authorship of artificial intelligence-generated works and possible system improvement in China, SCIRP. Available at: <https://www.scirp.org/journal/paperinformation?paperid=125721#ref16> (last visited on Dec 29, 2023)

128 Quach, K. (2023) 'new generation' of AI-written content farms on the rise, The Register® - Biting the hand that feeds IT. Available at: https://www.theregister.com/2023/05/02/ai_written_content_farms/ (last visited on Dec 29, 2023).

129 The impact of AI-generated content on content consumption, ACONTENTFY (2023), <https://aicontentfy.com/en/blog/impact-of-ai-generated-content-on-content-consumption> (last visited on Dec 29, 2023).

130 Prevalence of AI-Generated Content in Education, COPYLEAKS, <https://copyleaks.com/blog/prevalence-of-aigenerated-content-in-education> (last visited on Dec 29, 2023)

131 Sukanya Sarkar, 'India Recognises AI as Co-author of Copyrighted Artwork' <https://www.managingip.com/article/2a5czmpwixj23wyqct1c/exclusive-india-recognises-ai-as-co-author-of-copyrighted-artwork%3e> (last visited 7 December 2023).

acknowledging autonomous AI as a proprietor could foster creativity while guaranteeing human accountability is maintained. But it can pave the way for legal disputes.

The RAGHAV Artificial Intelligence Painting App is one example of an artificial intelligence tool that the copyright office has acknowledged as a co-author of a copyright-protected artistic work, in certain cases for the first time. There exists suspicion about how can they be equated with human co-authors and have the same rights as another human co-author.

The Intellectual Property Policy Think Tank, NASSCOM, has proposed that AI be recognized as a patent inventor but the same cannot be recognized for patent protection since the legislation requires inventors to be real beings. According to India's Draft National Policy on AI 2019, AI-generated intellectual property has to have a human author or owner.¹³² While some nations have laws that give copyright to those who assist in the creation of AI-generated works, these laws may not be sufficient to handle circumstances in which there are numerous parties and complex AI systems.¹³³ AI system operators and designers are not incentivized to treat AI-generated works as public property.¹³⁴ Also, the pertinence of suing an AI for infringement holds significance in ascertaining authorship. Notable cases like 'Rupendra Kashyap v. Jiwan Publishing House'¹³⁵ have brought attention to the need for authorship attribution of AI-generated literature to be made clear. It has been asserted that “re-measuring the limits of the doctrinal elasticity of authorship and shedding new light on the possible entry points where AI may be accommodated into this revisited dehumanized authorial regime”.¹³⁶ In its 161st report, the Parliamentary Standing Committee on Commerce recognizes the necessity of allowing AI authorship and ownership, hoping for “revisiting of IPR legislations and implementing a strong IPR framework.”¹³⁷ It has been acknowledging that authorship attribution in AI-driven creative works is a difficult but important undertaking.¹³⁸ Restricting AI in any way will restrict progress while it lacks theoretical or legal grounds¹³⁹ therefore there is a need for its regulation.

Lack of legal recognition, suspicion about originality and creativity, and concern in case of infringement have made the attribution process of authorship or inventorship to AI-generated work stagnant. The

132 National strategy for artificial intelligence - NITI aayog. Available at: <https://www.niti.gov.in/sites/default/files/2023-03/National-Strategy-for-Artificial-Intelligence.pdf> (last visited on Dec 29, 2023)

133 YuriyBurylo, AI GENERATED WORKS AND COPYRIGHT PROTECTION, ENTREPRENEURSHIP, ECONOMY AND LAW 7 (2022).

134 *Id.*

135 'Rupendra Kashyap v. Jiwan Publishing House'1996 (38) DRJ 81.

136 Yang Xiao, Decoding Authorship: Is There Really no Place for an Algorithmic Author Under Copyright Law?, 54 IIC 5 (2023).

137 Department Related Parliamentary Standing Committee On Commerce, Review of the Intellectual Property Rights Regime in India (RS 2021-2022,104 para 8.2.

138 Gandla Bhargava Sai, Anindya Sircar, AUTHORSHIP ATTRIBUTION IN AI-DRIVEN CREATIVE WORKS: A CHALLENGING BUT NECESSARY TASK 3 (1) DSNLU J. SCI. TECH. L. 1, 29 (2023).

139 *Id.*

advancement of AI cannot be limited and there is a need to recognize this very existing fact and make provision in this regard. “We are both created and created. Why cannot our creations also be created?”¹⁴⁰ This was a note from Justice Beach of the Australian Federal Court while granting inventorship to AI. Hence need to explore collaborative ownership models that acknowledge AI and human contributions. We can conclude that to adjust to the IPR framework courts have molded the traditional IP law in such a scenario why not explore an alternative model with modification so that a rational and effective distribution of IP rights can be made? With this objective, this research is limited to exploring the structure of a modified joint authorship model where joint authorship is granted for creative work carried out with the help of AI. In this work, we will explore the possible structure of the model of joint authorship to be granted to the AI-generated work as they do not qualify under existing IPR laws as creators. Alternate models suggested for AI-generated content are the modified joint authorship.

Intellectual Property Rights in AI-Generated Work: International Perspective

The intersection of AI and IP laws is a global phenomenon, and different jurisdictions have approached it differently based on their conception of IP laws and AI.

- **United States of America**

US IRR regime does not confer authorship to AI. USCO Practices Compendium explained in this regard that “The copyright law aims to protect “the fruits of intellectual labor” that “are founded in the creative powers of the mind Because copyright law is limited to “original intellectual conceptions of the author,” the Office will refuse to register a claim if it determines that a human being did not create the work.”¹⁴¹ Computer-generated work without human intervention is not granted copyright protection. While discussing the eligibility of comic books authored with the help of AI the US Copyright Office noted “The term “original” in this context consists of two components: independent creation and sufficient creativity. First, the work must have been independently created by the author. Second, the work must process sufficient creativity.”¹⁴²

- **United Kingdom**

English courts and authorities have shown a liberal approach toward AI-generated works and granted copyright protection to computer-generated work including AI to those who” arrange the creation of

140 Drexl J, Hilty R, Kim D & Slowinski, Peter R, Artificial Intelligence Systems as Inventors? A Position Statement of 7 September 2021 in View of the Evolving Case-Law Worldwide (7 September 2021), Max Planck Institute for Innovation & Competition Research Paper No. 21-20, file:///C:/Users/Dell/Downloads/SSRN-id3919588.pdf.

141 US Copyright Offices Practices Compendium (3rd edn, 2021) <<https://www.copyright.gov/docs/zarya-of-the-dawn.pdf>> (last visited 7 December 2023) (<https://www.copyright.gov/docs/zarya-of-the-dawn.pdf%3e>).

142 *Id.*

work” and copyright protection for 50 years is conferred¹⁴³ under the Copyright Design and Patents Act (CDPA), 1988.

- **India**

On the line of English law Indian Copyright Act 1957 also “recognize the author of a computer-generated literary, dramatic, musical or artistic work to be the person who causes the work to be Create”¹⁴⁴ but it requires the author to be a person, which AI-generated work lacks. For artwork titled "Suryast" AI RAGHAV was rejected copyright protection, but when its creator was made coauthor, copyright was granted.¹⁴⁵ Therefore there is a deviation in opinion toward granting co-authorship to AI-generated work.

Why Not Joint Authorship?

The author of a work is considered one who brings that content into existence. It is better defined in the words- “An author is a person who creates, comes up or gives existence to something. If the work was made for hire, the employer or commissioning party is considered the author of the work.”¹⁴⁶

Authorship is the process of determining ownership of creative work for granting rights and fixing liability. The joint authorship work under Indian copyright law is defines as “a work produced by the collaboration of two or more authors in which the contribution of one author is not distinct from the contribution of the other author or authors.”¹⁴⁷ Therefore, there can only be true joint ownership in certain situations, such as when two or more parties have contributed in a way that prevents the existence of any identifiable contributions. The term "joint authorship" has not yet been properly defined by Indian courts in the case of *Angath Arts Private Limited v. Century Communications Ltd. and Anr*¹⁴⁸ noted that the “joint owner of a copyright could not, without the consent of the other joint owner, grant a license or interest in the copyright to a third party. “In the scientific community, people who are directly involved in the planning, execution, or writing of the experiments or the papers that arise from them are usually recognized as authors of journal articles. Nonetheless, several copyright laws stipulate that a joint owner cannot use his right to prevent the commercialization of the work without a valid reason.

The attribution of authorship to works generated by AI is dependent upon the understanding of the term "person" which AI does not qualify as it is not a legal person. But Amendment of the copyright act,

143 Section 12, Copyright, Design, and Patent Act 1988,(United Kingdom).

144 Section 2(d)(vi). The Copyright Act, 1957 (Act No. 14 of 1957).

145 Supra note 131.

146 *Legal Information Institute*. Available at: <https://www.law.cornell.edu/wex/author> (Accessed:07 December2023).

147 Section 2(z),The Copyright Act, 1957 (Act No. 14 of 1957),

148 *Angath Arts Private Limited v. Century Communications Ltd. and Anr* 2008(3)ARBLR197(Bom).

emphasizes that, in cases involving “computer-generated works,” “the author is understood to be the one who makes the arrangements required for their creation.”¹⁴⁹ This clause makes it very clear that the creator of any AI system's work must be given credit for their creation. It seems that the intellectual property rights to the work generated by an AI system are the person who designed or developed it. The authors of such works as “the person who causes the work to be created.”¹⁵⁰ Therefore the developer of AI will be enjoying all the benefits as a co-author of AI-generated work.

In the existing notion of joint authorship, all authors have the same rights and share equal benefits unless agreed otherwise. Generated AI operates from the data upon which it has been trained. The process of machine learning trains it by supplying huge data. The contention in favor of granting copyright protection to AI-generated content is based on the transformative nature of these works similar to an artist who takes inspiration from work of multiple works and creates his own. Though this content is not completely original has a transformative nature also the requirement of Originality under copyright differs from that of novelty under patent law. it simply requires that work should be created independently rather than copied from any existing source.¹⁵¹

In R.G. Anand's¹⁵² case, SC held that “substantial similarity between two works should be avoided, to the extent that a reasonable spectator, upon viewing both works simultaneously, would not conclude one as a mere copy of the other.” In *East Book Company & Ors*¹⁵³ the apex court noted for copyright protection of any work “it must be demonstrated that it is more than just a copy of the original and must contain the author's independent work.”

Distributing benefits of creative works under joint authorship relies on an “all-or-nothing model” which requires authors to make similar contributions to creative work.¹⁵⁴ Dominant contributor is favored at the expense of secondary authors where the contribution is not equal in creative work.¹⁵⁵ This is based on the perception that joint work must lead to equal distribution of such work.¹⁵⁶ Later on, the transition has been seen to that of a “proportional contribution model”¹⁵⁷ where ownership is distributed proportionally to their contribution to creative work.¹⁵⁸ The “all-or-nothing” collaboration paradigm, which bases shared authorship eligibility on authors contributing similarly to a work, is the main tenet of the joint authorship

149 Section 2(d)(vi). The Copyright Act, 1957 (Act No. 14 of 1957).

150 Section 2(d)(vi). THE COPYRIGHT ACT, 1957 (Act No. 14 of 1957),

151 *L. Batlin Son, Inc. v. Snyder*, 536 F.2d 486 (2d Cir. 1976)

152 *R.G. Anand v.M/S. Delux Films & Ors*(1978)SC 1613.

153 *East Book Company & Ors v. D.B. Modak & Anr* (2004) SC 6472.

154 Benjamin E. Jaffe, *Rebutting the Equality Principle: Adapting the Co-Tenancy Law Model to Enhance the Remedies Available to Joint Copyright Owners*, 32 *CARDOZO L. REV.* 1549, 1550 (2011)

155 *Childress v. Taylor*, 945 F.2d 500, 508-09 (2d Cir. 1991); *Thomson v. Larson*, 147 F.3d 195, 200 (2d Cir. 1998).

156 *Abraham Bell & Gideon Parchomovsky, Copyright Trust*, 100 *CORNELL L. REV.* 1015, 1016(2014)

157 *Martin v. Kogan* [2019] *EWCA (Civ)* 1645, [53] (Eng.).

158 *Id.*

doctrine. However, The English legal system started to acknowledge the unequal contributions of co-authors at the start of the twenty-first century, and in response, it awarded them according to the proportional contributions of each author to the work. However, “both models ignore other types of contributions, such as those of ideas, participation in mass collaborative models, and the contribution of experts’ technical knowledge and the contribution of experts’ technical knowledge.”¹⁵⁹ Disregarding these types of contributions may “reduce the incentive of creators to collaborate—one of the central challenges of the joint authorship doctrine.”¹⁶⁰

In the context of AI-generated work, the existing notion of joint authorship is based on an “all-or-nothing model” that grants equal rights to both AI and Human authors. This poses a very logical question as Generated AI cannot act without human intervention likewise humans might not have achieved that quality of work without the use of AI. Therefore, humans must not be credited for the contribution of AI and vice versa. However, it is worth noticing that AI cannot be considered a tool only as it plays a greater role than that. But still, humans play a significant role as it converts ideas into expression and AI merely helps to bring ideas into creativity. Then why equal rights to both entities?

Because AI lacks human attribution and there is suspicion about its creativity and innovation which forms the basis of IP rights giving them equal rights as human co-authors defeats logic. Also, in such conditions where AI is co-author then who can exercise all IP rights, If the developer of AI is given this right, they will enjoy without any effort for the work of another person which defeats the purpose of intellectual protection. The length of protection for the combined work is another distinctive feature of the joint authorship doctrine. Because work protection lasts for a specific amount of time after the author's death, the validity of jointly created works may last longer than that of a solo creation. Granting Joint authorship to AI-generated content also raises questions related to the duration of Protection

Model of Modified Joint Authorship

This model is based on the “proportional contribution model” of distributing the benefits of creative work among joint authors. The author identified three groups of joint authorship in an alternate model of modified joint authorship for the proper distribution rights under joint authorship in the case of AI-generated work. They are Primary, Secondary, and De-minimus authors.¹⁶¹

159 Tehila Rozenzwaig-Feldman, *The Author and the Other: Reexamining the Doctrine of Joint Authorship in Copyright Law*, 32 *Fordham Intell. Prop. Media & Ent. L.J.* 172, 173(2021). Available at: <https://ir.lawnet.fordham.edu/iplj/vol32/iss1/3> (last visited on Dec 29, 2023).

160 *Id.*

161 *Supra* note 157 at page 178.

The primary joint author, sometimes referred to as the “typical author,” is the first person in the hierarchy and is granted ownership and authority over the joint work. He will enjoy relatively greater benefits than other categories of authors as they are the main contributors to creative work. The “idea” which is a requirement of copyright protection belongs to the primary author. The creative work would not have come into existence except for the contribution of the Primary author his contribution forms the basis of the work. Secondary joint authors are those who, although having a lower contribution than other authors, still make a significant and copyrightable contribution to a joint work. The secondary author is entitled to rights under the proposed model in proportion to the extent of their contribution. The de minimis contributors comprise the third category; they do not intend to create a collaborative work, and their contributions are not protected by copyright. This could involve offering feedback, organizing and editing information incorporated into production, or giving technological and scientific understanding. They will appear at the bottom of the hierarchy. “If courts deny rights to authors for uncopyrightable contributions, then according to the proposed model, such contributions will still grant credit or, in rare cases, minor rights to the de minimis contributor.”¹⁶²

The notion of a “secondary author” might be invoked in discussions related to collaborative inventions involving both humans and artificial intelligence where AI should be considered secondary author and humans as primary. One is considered a secondary author due to their significant contribution to the creative process. The modified joint authorship model acknowledges that while AI contributes significantly to the creative process, it lacks the essential attributes of human experience, intuition, and intentionality that have historically defined authorship. Consequently, the legal recognition of AI as a secondary author with limited rights reflects a pragmatic approach to accommodate technological advancements without undermining the foundations of intellectual property law. In this modified model, AI assumes the role of a secondary author, a designation that underscores its substantial contributions to the creative process. Unlike primary authors, which are typically human creators, secondary authorship recognizes the instrumental role of AI in shaping the final output. The limited rights granted to AI as a secondary author may encompass restrictions on ownership, transferability, and certain exclusive rights traditionally associated with primary authors. This deliberate circumscription ensures that ultimate control and responsibility remain firmly anchored in the human domain. It also addresses potential legal, ethical, and societal implications arising from unfettered AI authorship.

Alternatively, in this model, it is proposed to assign AI-only status of de minimis contributors Where it has been used only for organizing and editing the creative work. This means that where the contribution of AI is of only assisting nature such contribution can be effectively recognized by granting dee minimus

¹⁶² *Id.*

contributor in which its contribution is only acknowledged rather than granting IP rights to it. It is “fair and just” to recognize such contributions that are not copyrightable as “fostering creativity is best served by rewarding all parties who work together to unite the idea with form, and that copyright protection should extend both to the contributor of ideas and the contributor who fixed the idea into the joint work” Additionally, the protection time can be suitably shortened because AI-generated works have a significantly lower protection value than traditional works created by normal individuals.¹⁶³

Impact of Modification

This collaborative model while capable of answering questions due to the accommodation of AI in the IPR regime. By granting dominant right over the creative work to Humans and recognizing AI as merely secondary author it properly reflects the contribution of authors in proportion to their contribution as the “idea” which is of prime importance belongs to Humans while AI merely helps to bring the idea into expression. This modification can be crucial for determining ownership of creative work and attributing contributions appropriately to humans and AI. As this model gains traction, ongoing discussions within legal, technological, and ethical spheres become imperative. Collaborative efforts are needed to refine and adapt legal frameworks, ensuring they remain responsive to the evolving landscape of AI-generated creativity. Striking the right balance between fostering innovation and safeguarding human values will be central to the continued development of a coherent and equitable intellectual property regime in the age of artificial intelligence. By offering AI developers rewards and legal protection, granting limited intellectual property rights (IPR) to AI-generated works might encourage innovation. “The policy positions adopted about the attribution of copyright to AI-generated works will go to the heart of the social purpose for which the copyright system exists”.¹⁶⁴ It can facilitate standards for AI-generated works by fostering accountability and quality control. “More individuals will be willing to use AI software when their rights and interests are completely safeguarded, increasing revenue for the software developing team and drawing in more funding, creating a positive loop.”¹⁶⁵

163 Supra note 121.

164 Legal issues with AI-generated content: Copyright and chatgpt (no date) Legal Developments. Available at: <https://www.legal500.com/developments/thought-leadership/legal-issues-with-ai-generated-content-copyright-and-chatgpt/> (last visited on Dec 29, 2023).

165 Supra note 126.

Conclusion & Suggestion

Starting from the regulation of humans, law in today's world regulates creations of humans too i.e. corporations, and next in queue is Artificial intelligence. The impact of Artificial Intelligence on human life seems to be similar to that of the Discovery of controlled fire by humans which forms the basis for a further revolution in human life. The role of AI in every sphere of human life is growing significantly in every sphere of life from health to infrastructure and the legal system is no exception. While the issues raised by present technology may be addressed and resolved by the current patent law system, the widespread growth of AI technologies that followed may call for the use of novel strategies.

The evolution of AI presents both challenges and opportunities in defining ownership, authorship, and inventiveness within the context of intellectual property law. To ascertain who is the copyright holder and who has the authority to assert IP rights over the work, authorship attribution is required. All this makes authorship attribution in AI-driven creative works essential, especially in the context of Copyright. The modified joint authorship model discussed acknowledges the collaborative nature of AI creation, recognizing the input of both human actors and autonomous algorithms. The concept of a secondary inventor may be used to acknowledge the role of AI systems in contributing to the inventive and authorship process “When applying this idea to works made by AI, it is important to think about the creative choices that were made and the skill and judgment that were used.”¹⁶⁶

Modified models of joint authorship are therefore investigated, with a view to distinguishing appropriately between the automata and their operators while maintaining clarity in legal doctrine and human accountability. In the coming-of-age era that AI has opened by redefining creativity and innovation, it is certain how Law fraternity finds itself compelled to change. We need a actually complex approach that will combine traditional product management principles with AI-specific considerations. Thus, the discussion of various aspects of intellectual property rights connected with AI-generated content exposes the need to build the progressive and flexible legal environment. By adopting the approach of a variation of joint authorship and inventorship, it is possible to create a positive framework for the coexistence of human and artificial intelligence so that the outcomes of their collaborative work can be produced as efficiently as possible while all the involved parties stay protected and fairly rewarded to the maximum extent possible.

¹⁶⁶ Irina Buzu, *supra* note 121.



FOSTERING CREATIVITY IN THE DIGITAL AGE: BALANCING USER- GENERATED CONTENT WITH COPYRIGHT PROTECTION

Sorenbeni D Odyuo¹⁶⁷

Abstract

User-generated Content (UGC) significantly impacts consumer behaviour due to its perceived trust and authenticity. However, copyright law needs to work on keeping pace with the explosion of UGC online. Fair use limitations and complex licensing schemes create challenges for creators and copyright holders. Social media platforms often exploit UGC without fair compensation, blurring the line between moderation and infringement. Content creators retain copyright ownership but may grant platforms licenses for sharing. The public domain and fair use allow limited use of copyrighted material. International efforts are underway to adapt copyright laws to the digital age, with the European Union's Copyright Directive and WIPO Copyright Treaty as critical examples. The future demands a balance that protects creators' rights while fostering innovation and user expression in the evolving digital copyright landscape.

Keywords: User-Generated Content (UGC), Fair use, infringement, creators' right

Introduction

In the digital age, fostering creativity while balancing user-generated Content User-generated Content (UGC) with copyright protection presents a complex challenge. The evolution of copyright law has not kept pace with the rapid growth of digital platforms that facilitate UGC, leading to tensions between creators' rights and users' freedoms. This discourse is critical as it impacts both the creative industries and the broader public sphere.

Copyright law is designed to encourage creativity by protecting the rights of authors and creators. However, it can also hurt creativity. While copyright can motivate people to create original works, it can also make it difficult for others to use those works in new ways. This is especially true in user-generated

¹⁶⁷ 3rd Year, B.B.A.LL. B(Hons.), Himachal Pradesh National Law University (HPNLU)

content, where people often remix or build upon existing content. The challenge is to create a legal system that promotes innovation without limiting creativity.

Commercial interests can sometimes conflict with restrictive copyright protections. In China, for instance, media enterprises have only sometimes supported stringent copyright laws, suggesting that a more flexible approach could foster innovation and collaboration.

Automating copyright enforcement raises concerns about the monetization of UGC and the potential for platforms to prioritize profit over user rights. This can have a chilling effect on creativity, as users may hesitate to engage with content for fear of infringement.

To address these challenges, there is a growing call for reforming copyright laws to better accommodate UGC. For example, introducing specific exceptions for UGC could provide a legal framework that supports transformative uses while still protecting the rights of original creators.

Understanding UGC: Its Influence and Credibility

What do we know about User-Generated Content (UGC)?

UGC is Content created by an individual on a social media platform related to a product or service but not sponsored by the brand company. UGC encompasses social media updates, reviews, blog posts, videos and podcasts. It is done in many ways. For instance, a customer sharing a video through unboxing videos, Q&A forums or photos that flaunt their purchases¹⁶⁸.

User-Generated Content and its Impact on consumer behaviour:

User-generated Content, or electronic word-of-mouth (eWOM), operates similarly to traditional word-of-mouth. However, instead of spreading through face-to-face interactions, UGC disseminates online. UGC encompasses Content—such as reviews, blog posts, photos, videos, and social media updates—created by non-media individuals. Its Impact on consumer behaviour is significant, as it is perceived as more credible and trustworthy than producer-generated content. Consumers increasingly rely on UGC to inform their purchase decisions, considering it an authentic reflection of real experiences.

Hennig-Thurau et al., (2004) define eWOM/UGC as “any positive or negative statement made by potential, actual, or former customers about a product or company, which is made available to a multitude of people and institutions via the Internet”¹⁶⁹.

¹⁶⁸ Duke, D. (2024). Council post: Why user-generated Content is winning, Forbes. available at: <https://www.forbes.com>. (last visited on august 19 2024).

¹⁶⁹ Nguyen Thi Thanh Thao Tong Shurong, “Is It Possible for “Electronic Word-of-Mouth” and “User-Generated Content” to be Used Interchangeably?” *Journal of Marketing and Consumer Research* ISSN 2422-8451 An International Peer-reviewed Journal Vol.65, p42 (2020).

1. Influence of UGC:

- UGC has a significant impact on people's consumption decisions.
- Consumers trust Content created by their peers more than traditional advertising.
- Platforms like Facebook, YouTube, Twitter, and Instagram are common channels for sharing UGC.

2. Credibility of UGC vs. Producer-Generated Content (PGC):

- UGC is perceived as more credible because it is based on actual consumer experiences.
- Consumers trust UGC over PGC (which often involves hired endorsers and celebrities) because they believe UGC creators do not have commercial interests.

3. Why UGC Matters:

- Trustworthiness: UGC is considered trustworthy, helpful, and unbiased.
- Decision-Making: Potential consumers rely on UGC to inform their purchase decisions¹⁷⁰.

Understanding Indian Copyright Law: A Look at Sections 51 & 52

Section 52 of the Indian Copyright Act establishes a balance between the rights of copyright holders and the public's interest in accessing and using copyrighted material. It achieves this by outlining exceptions to copyright infringement, permitting certain actions under specific conditions.

Fair Dealing

This is a crucial exception that allows limited use of copyrighted works for purposes such as:

The fundamental principle is that the use must be fair and not harm the copyright holder's market.

Computer Program Exceptions

This section recognizes the need for compatibility between software programs. It permits limited copying for:

¹⁷⁰ Azlin Zanariah Bahtar, Mazzini Muda, "The Impact of User-Generated Content (UGC) on Product Reviews towards Online Purchasing – A Conceptual Framework, *Procedia Economics and Finance*", Volume 37, Pages 337-342, ISSN 2212-5671(2016).

Computer Program Exception	Description
Creating backup copies	Lawful owners can create backup copies of software for protection against loss or damage.
Ensuring interoperability	Limited copying is allowed to ensure compatibility between computer programs.

Education and Libraries

Section 52 acknowledges the importance of education and research by allowing exceptions for:

Exception for Education and Libraries	Description
Educational institutions	Teachers, students, and institutions can make copies of copyrighted works for educational purposes.
Libraries	Libraries can make copies of particular works for preservation or research purposes under certain conditions.

The section also covers exceptions for government works, public domain works, and ephemeral recordings by broadcasting organizations.

Section 52¹⁷¹ is vital in fostering innovation, education, and research. It establishes a legal framework for using copyrighted material without infringing upon the rights of copyright owners. This balance is essential for a healthy, creative ecosystem.

Section 51¹⁷² of the Copyright Act serves to play a significant role as the legal backbone of copyright protection in India. It ensures that the creator's rights are respected and protected.

¹⁷¹ The Copy Right Act, 1957(Act No 14 of 1957), s.52

¹⁷² The Copy Right Act 1957(Act No14 of 1957), s.51.

It is the foundation of legislation for protecting and observing creators' rights, as it discourages possible infringers and gives copyright holders legal redress when their creations are utilized or distributed illegally.

Section 51 of India's Copyright Act was enacted in 1957 and has undergone amendments to accommodate technological improvements and changing times. This regulation aims to balance upholding the rights of creators and enabling society to profit from their creations.

Breaking down section 51: layman terms.

1. Unauthorized Use of Copyrighted Material
2. Unauthorized Distribution and Sale

Real-world examples

- Music piracy
- Movie piracy
- Plagiarism in literature
- Software copyright infringement ¹⁷³

The Copyright Act of 1957 is the law that governs copyright in India. It protects the following types of content works: creative, theatrical, musical, and literary pieces, as well as sound and cinematograph films. Since the Act came into force, the Copyright Act of 1957 has been amended multiple times. However, the most notable is the 2012 modification added with respect to the WIPO Internet Treaties, i.e., the WIPO Copyright Treaty (WCT) and WIPO Performance and Phonogram Treaty (WPPT). The WPPT and WCT grants the following rights to the authors:

- (i) the right of distribution.
- (ii) the authority to approve the commercial leasing of the public;
- (iii) the freedom to speak or to make accessible to the general public, and
- (iv) reproduction rights.

The Contracting parties are required by the Internet Treaties to offer legal national legislation that provides remedies against evading technical measures (such as encryption, electronic signatures, digital watermarking, etc.) as well as safeguarding the data that is necessary for the administration of the writers' rights (including the name of the writer/performer, nature of the piece). However, the 1957

¹⁷³ What is Section 51 of the Copyright Act in India? available at: <https://vakilsearch.com/blog/what-is-section-51-of-the-copyright-act/> (last visited on august 20, 2024).

Copyright Act does not offer any detailed clause that addresses social networking platforms or intermediaries. It only offers protections against widespread infringement of copyright. According to the judiciary's recent stance, it is noted that the Copyright Act's sections have been considered for and used in the works shared online or on social media networks. Still, the Information Technology Act of 2000 stipulates the intermediaries' "safe harbour" clause. Presently, the IT Act, 2000 is accompanied by the recently notified Information Technology (Intermediary et al. Ethics Code) Rules, 2021 (2021 Rules), which superseded The Information Technology (Intermediaries Guidelines) Rules, 2011 (2011 Rules).¹⁷⁴

The Copyright Maze of User-Generated Content: Challenges and Rights

Challenges

1. Challenges with Existing Copyright Framework:

- Copyright law was initially designed to regulate the professional, commercial use of copyrighted works.
- The rise of amateur, individual users creating and sharing Content online has destabilized this traditional model.
- Copyright holders have tried to apply copyright against these individual end-users, but the system is not well-equipped to license or enforce against millions of small-scale users.¹⁷⁵

2. Limitations of copyright exceptions and fair use/fair dealing doctrines:

- These were designed for the analogue world and struggled to accommodate the scale and characteristics of UGC in the digital age.
- The uncertainty and unpredictability of fair use/fair dealing make it an inadequate framework for UGC creators.

3. Complexities of licensing schemes:

- Public licensing models like Creative Commons must be simplified for many UGC creators to navigate.
- UGC often involves remixing and reusing multiple copyrighted works, making licensing difficult.

4. Imbalance of power between UGC creators and platforms:

¹⁷⁴ Prachi Tyagi "Social media and Copyright: An Indian Perspective" *Journal of Intellectual Property Rights* Vol 28, pp 402-412(2023).

¹⁷⁵ Daniel Gervais, "The Tangled Web of UGC: Making Copyright Sense of User-Generated Content", 11 *Vand. J. Ent. & Tech. L.* 841 (2009).

- UGC platforms use terms of use/service to grant themselves broad, royalty-free licenses to exploit UGC without fairly compensating creators.
 - The oligopolistic nature of major platforms leaves UGC creators with little bargaining power.
5. Ambiguity around safe harbor protections for platforms:
- The boundaries between platforms as neutral intermediaries and active content providers have blurred.
 - Legal interpretations of safe harbour requirements have shifted, leaving platform liability uncertain.
6. Challenges in tracing and monetizing dispersed UGC:
- UGC's vast scale and distributed nature make it difficult for copyright owners to monitor and monetize.
 - Individual UGC creators need more resources to enforce their rights against platforms.¹⁷⁶
7. Sharing copyrights as a challenge
- Copyright laws protect users' rights, and they also allow social media companies to obtain broad licenses. This can lead to users' Content being exploited commercially without compensation.
 - The rapid pace of sharing on social media increases the risk of copyright infringement, potentially exposing users to legal action.¹⁷⁷.

Rights of the content creators

1. Copyright ownership: The person who creates the Content is the copyright owner; it is an implied exclusive right of them to reproduce, distribute, display, and perform their work.
2. License to the platform: Users who upload Content on the platform grant the platforms a non-exclusive license to use, copy, distribute, and show Content. As a result, the Content can be shared on the platform.
3. Terms of service and agreement: Content creators and users often agree to terms of service or user agreements that outline their rights and responsibilities, including how the platform can use and moderate user-generated Content.
4. Public domain and Fair use: Content in the public domain is not protected by copyright and can be used freely. The "fair use" doctrine allows limited use of copyrighted material for specific purposes without permission.

¹⁷⁶ Yahong Li & Weijie Huang, "Taking Users' Rights Seriously: Proposed UGC Solutions for Spurring Creativity in the Internet Age", 9 QUEEN MARY J. INTELL. PROP. 61 (2019).

¹⁷⁷ Jessica Gutierrez Alm Sharing" Copyrights: The Copyright Implications of User Content in social media", Journal of Public Law and Policy volume 35, pages 105-130 (2014).

5. Content moderation and removal: The platform exercises the right to moderate and remove user-generated Content that violates its policies¹⁷⁸
6. Creator rights in commercial or branded use: Using user-generated content for commercial purposes requires permission, especially involving influencers. UGC contracts should explicitly address these rights to protect content creators and those using their Content commercially.
7. Enforcing intellectual property rights and compensation: Using Content protected by intellectual property law without permission can lead to legal issues. This includes using copyrighted material like music in user-generated content. All necessary permissions must be obtained, which can be costly.¹⁷⁹

The Doctrine of Fair Use in India

The Copyright Act, of 1957 states in its provision that fair dealing with a literary, dramatic, musical or artistic work that is not a computer program is not considered¹⁸⁰ An infringement of copyright.

1. The term “Fair dealing” includes anything excluding a computer program that is used for
 - (i) “Private or personal use” including research;
 - (ii) Criticism or review of that work or any other work
 - (iii) Reporting on current events and affairs, including reporting on a lecture given in public.
2. Technical Storage: Temporary storage during electronic transmission or communication is allowed.
3. Linking and Integration: Temporary storage for linking, accessing, or integrating Content is allowed unless prohibited by the rights holder.
4. Judicial Purposes: Reproduction for judicial proceedings or reports is allowed

The court considers both legal provisions and case law to determine whether an abridged work constitutes “fair use” of a copyrighted work. The court's decision is based on a case-by-case analysis of technical factors.

In Hubbard & Another v. Vosper & Another, Lord Denning stated that:

“It is impossible to define what is “fair dealing.” It must be a question of degree. You must consider first the number and extent of the quotations and extracts. Are they altogether too many and too long, to be fair? Then you must consider the use they make. That may be fair dealing if they are used as a basis for comment, criticism or review. That may be unfair if they are used to convey the same information as the

¹⁷⁸ Xanthe Melikian, available at: <https://getflowbox.com/blog/user-generated-content-permission/>. (last visited on august 25, 2024).

¹⁷⁹ Available at: <https://www.brandbassador.com/en-gb/resources/user-gen>. By Brandbassador (last visited on August 25,2024).

¹⁸⁰ What is fair use of copyright doctrine? available at <https://www.mondaq.com/india/copyright/1348352/what-is-fair-use-of-copyright-doctrine/>. (last visited on august 25, 2024).

author for a rival purpose. Next, you must consider the proportions. To take long extracts and attach short comments may be unfair. However, short extracts and long comments may be fair. Other considerations may come to mind also. However, it must be a matter of impression.”¹⁸¹.

In *M/s. Blackwood & Sons Ltd. v A. N. Parasuraman*, Justice Rajgopala Ayyangar observed: "Two points have been urged in connection with the meaning of the expression 'fair' in 'fair dealing.'

(1) that in order to constitute unfairness, there must be an intention to compete and to derive profit from such competition and

(2) that unless the motive of the infringer were unfair in the sense of being improper or oblique, the dealing would be fair.”

Fair dealing of Digital works

The interaction between copyright and technology has led to challenges for copyright owners. Easy access to copyrighted works online has increased concerns about infringement. The main copyright issues in the digital age can be grouped into three categories.

- i. Issues relating to a whole new set of work, namely, computer programs, databases and multimedia works;
- ii. Issues relating to reproduction, distribution and communication to the public of work through digital media and
- iii. Issues relating to the management and administration of copyright in the digital environment. A significant challenge posed by digital technologies to a user who is a public member is the right to “informed decision-making.”¹⁸²

Looking ahead to the digital age

Intellectual property laws are adapting to the digital age. Governments and international organizations are working towards digital harmony and international cooperation to create a unified approach to IP protection and address social media challenges.

¹⁸¹ Fair use in India copyright act Available at: <https://blog.iplayers.in/fair-use-law-india-copyright-act/>. (last visited on august 24, 2024).

¹⁸²Sufiya Ahmed, "Fair Dealing in Indian Copyright Law", *Journal of Intellectual Property Rights* Vol 26, pp 96-102, (2021).

Some key developments in this area include:

1. **The European Union's Copyright Directive** introduces new measures to protect copyright holders in the digital sphere.
2. **The World Intellectual Property Organization's (WIPO) Copyright Treaty** sets international standards for copyright protection in the digital environment.
3. **The United States Copyright Alternative in Small-Claims Enforcement (CASE) Act** provides a new framework for resolving copyright disputes involving online Content.

These developments show that IP laws adapt to the digital age to protect online creators and innovators¹⁸³

¹⁸³ The Impact of social media on Intellectual Property Protection available at: <https://aaronhall.com/the-impact-of-social-media-intellectual-property-protection/>. (last visited on august 24, 2024).



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**DECODING THE ANTI-DISSECTION AND DOMINANT FEATURE RULES:
CONFLICT OR COMPLEMENT?**

Nayana. K. B.¹⁸⁴ and Shivansh Sharma¹⁸⁵

Abstract

This research paper delves into the intricate relationship between the Anti-Dissection Rule and the Dominant Feature Rule within trademark law, exploring whether these principles are in conflict or complement one another. Trademarks serve as vital assets for businesses, providing a unique identity and fostering consumer trust. However, the rise of similar trademarks in a competitive market has necessitated robust legal frameworks to prevent consumer confusion and ensure fair competition. The Anti-Dissection Rule posits that trademarks should be evaluated in their entirety, emphasizing the overall impression on consumers rather than focusing on individual components. This approach aligns with the objective of trademark protection, which seeks to avoid public confusion by considering the trademark as a whole. Conversely, the Dominant Feature Rule highlights the importance of identifying and protecting the primary elements of a trademark that consumers rely on for differentiation. Courts across jurisdictions grapple with applying these rules, particularly in cases where composite trademarks with distinctive elements are involved.

Through a detailed examination of case law, including landmark decisions such as PhonePe Ltd v. Ezy Services and Ultratech Cement Ltd v. Dalmia Cement Bharat Ltd, this paper illustrates how courts navigate the tension between these rules. The analysis reveals that while the Anti-Dissection Rule discourages dissecting trademarks into parts, the Dominant Feature Rule ensures that the most prominent elements of a trademark are safeguarded against infringement. Ultimately, this study argues that these two principles, rather than being antithetical, can be harmonized to provide comprehensive protection for trademarks. By considering both the overall impression and the dominant features, courts can more effectively address the challenges posed by modern trademark disputes, preserving the integrity of

¹⁸⁴ 4th yr student at National Law University, Odisha.

¹⁸⁵ 4th yr student at National Law University, Odisha.

intellectual property rights in an increasingly globalized market.

Keywords: Anti-dissection; Dominant Feature Rule; Trademark Law; Intellectual Property Rights; Consumer Confusion.

Introduction

The concept of trademark, as defined by intellectual property law, holds a significant position. It serves as a valuable asset for businesses, establishing a distinct identity for their products or services and instilling trust among consumers in a competitive market. The essence of a trademark lies in its unique and distinguishable nature. This legal right is based on the fundamental principle of the dominant feature. This research paper embarks on a comprehensive exploration of the Dominant Feature Rule within the domain of trademark law. It aims to unravel the complexities of this rule, analyze its application in different jurisdictions, and elucidate its crucial role in safeguarding intellectual property rights. Through a detailed examination of case laws, legislative frameworks, and scholarly discourse, this study seeks to provide a clear understanding of the underlying principles, practical implications, and evolving trends associated with this fundamental doctrine. The genesis of the Dominant Feature Rule lies in the necessity to identify the primary elements that consumers rely on to distinguish and identify goods and services in the marketplace. Essentially, this rule dictates that when determining trademark infringement, courts must prioritize the dominant or distinctive features of a mark over its generic or descriptive components. By emphasizing the dominant elements, this rule strengthens the protection granted to trademarks, preserving their integrity and ensuring fair competition in commercial spheres. The application of the Dominant Feature Rule traverses a complex terrain shaped by diverse legal frameworks and approaches in jurisprudence. Courts across jurisdictions grapple with nuanced interpretations and applications of this rule, considering factors such as consumer perception, market context, and the interplay between visual, phonetic, and conceptual elements of trademarks.

This paper conducts a thorough examination of case law and statutory provisions to explore the diverse approaches taken by various legal systems, providing valuable insights into the factors influencing judicial decision-making and outcomes in trademark disputes. Additionally, it seeks to shed light on the changing landscape of the Dominant Feature Rule in light of modern challenges such as globalization, technological progress, and new forms of trademark usage. By analyzing recent developments and key precedents, the paper aims to clarify the evolving scope of trademark protection in a dynamic and interconnected global market. Ultimately, this study delves into the realm of trademark law, unraveling the complexities of the Dominant Feature Rule and its significant implications for safeguarding intellectual property rights. Through meticulous analysis and critical examination, it aims to enrich the ongoing conversation on

trademark jurisprudence, providing valuable insights for professionals, academics, and policymakers.

Basic Rule of Trademark Infringement

A Trademark serves as a unique protection and safeguards the value that is attached to the word of products or services offered by a business. The presence of like products in the market full of competitors makes it indispensable to protect the trademark. This protection ensures that the competitors do not sell similar products or services under the guise of the original company's name and the consumers are not confused and are better informed about the products or services they are buying.

This protection seems perfect until the problem of similar trademark arises. Since upon being granted trademark protection, the person gets the exclusive rights over its usage. But, there are instances where the trademarks are similar which leads to confusion in the market to the consumers destroying the objective of the trademark protection. This is where the anti-dissection rule comes to play¹⁸⁶.

The theory of anti-dissection rule under trademark provides whether the alleged trademark violation or alleged similarity of the trademarks should be looked at its entirety or in parts or on the way the consumers perceive of the trademark. The underlying assumption of the theory is that the trademark when viewed in its entirety has a deeper and lasting impression on the consumers than the individual components of the trademark. Experts of trademark like McCarthy have tried to provide us with the rationale behind the rule. A great emphasis is placed on the importance of evaluating trademarks based on their commercial impression that it has on the average consumers in the market¹⁸⁷. So, McCarthy has an opinion that when the conflict arises with respect to the trademarks on the ground that they are similar, the courts should instead of dissecting them into conflicting composite marks, should consider it in its entirety. This is coherent with the object of trademark that is to avoid public confusion.¹⁸⁸

What the Statute Has to Say on Anti-Dissection

Anti-dissection rule has a genesis in sections 15 and 19 of the Trademark Act, 1999. Section 15 of the act has clearly provided that if the proprietor claims the trademark, needs to get each part of the trademark

¹⁸⁶ Sonal Sinha, "PhonePe v. BharatPe: Anti Dissection v. Dominant Mark Test", The IP Press, June 16, 2021. <<https://www.theippress.com/2021/06/16/phonepe-vs-bharatpe-anti-dissection-vs-dominant-mark-test/>> (last accessed on March 18, 2024).

¹⁸⁷ Swastik Shukla and Divyanshi Shukla, "Rooh Afza v. Dil Afza: A Classical Case of Deceptive Similarity", NLIU-IP Journal, February 9, 2023. <<https://csipr.nliu.ac.in/trademark/rooh-afza-v-dil-afza-a-classic-case-of-deceptive-similarity/>> (last accessed on March 18, 2024).

¹⁸⁸ Diksha Mehta, "Analysis of grounds of Trademark Infringement", SSRN, August 1, 2020. <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3788821> (last accessed on March 10, 2024).

registered separately or everything as a whole¹⁸⁹. They may be registered as a series in one registration. This becomes even more crucial in cases of trademark infringement as the rights to take action against infringer is limited only to the extent the distinctive part of the trademark is misused. Trademark, in cases of presence of composite elements are in general protected as a whole. But, section 15 and 19 of the Act provides for registration of parts of the trademarks and trademarks as a series.

If the proprietor intends then he can get each component of the trademark registered, provided each element fulfils the conditions of an independent trademark and will be examined separately to determine the protection¹⁹⁰.

Section 17 clause (1) *when a trade mark consists of several matters, its registration shall confer on the proprietor exclusive right to the use of the trade mark taken as a whole.*

(2) *Notwithstanding anything contained in sub-section (1), when a trade mark (a) contains any part— (i) which is not the subject of a separate application by the proprietor for registration as a trade mark: or (ii) which is not separately registered by the proprietor as a trade mark: or (b) Contain any matter which is common to the trade or is otherwise of a non – distinctive character. The registration thereof shall not confer any exclusive right in the matter forming only a part of the whole of the trade mark so registered.*

The understanding of the section 17 provides that a person having a trademark on the composite marks, having different components in its trademark cannot claim exclusive rights over each individual characters¹⁹¹, as the protection is granted to it as a whole. If he wants to have claim over individual component of the trademark, he is supposed to get them registered under section 15 of the act.

Sub-section (2) of the section 17 uses “the registration thereof shall not confer any exclusive right”, which when read with the context makes it clear that registration of the composite mark as the trademark will not ipso facto confers any exclusive rights as to the individual parts of the composite mark. But, if the trade mark holder can establish exclusivity of the individual elements of the composite mark, he can then assert the exclusivity over the same.

Section 15(1) where the proprietor of a trademark claims to be entitled to the exclusive use of any part thereof separately, he may apply to register the whole and the part as separate trademarks.

The composite components of the trademark can be trademarked individually and the claim over the same would stand strong. The judiciary have tried to emphasis on these sections time and again. In the case of Ultratech Cement Limited and ors. V. Dalmia Cement Bharat Limited¹⁹², the trade mark (‘Dalmia Ultra’) and (UltraTech Cement’) was challenged by the Ultratech Cements, claiming that the usage of ‘Ultra’ by

¹⁸⁹ Trade Mark Act, 1999, s. 15.

¹⁹⁰ Mahak Meena, “Case notes on Subway IP LLC v. Infinity Food and Ors”, Khurana & Khurana, March 12, 2024. <<https://www.khuranaandkhurana.com/2024/03/12/case-note-on-subway-ip-llc-v-infinity-food-and-ors/>> (last accessed on March 18, 2024).

¹⁹¹ Trade Mark Act, 1999, s. 17.

¹⁹² Ultratech Cement Ltd v Dalmia Cement Bharat Ltd, 2016 SCC Online Bom 3574.

the Dalmia Cements being in the same industry has caused confusion in the public. The courts rightly held that Ultratech has not got the term ‘Ultra’ registered separately in order to claim trademark infringement. It also considered the point that Dalmia Cements has built its goodwill in the market and usage of ‘Ultra’ does not pose any problem to the UltraTech Cements.

Rule of Anti-Dissection V. Rule of Dominant Feature: A Legal Conundrum

It is a general perception that both these rules seem to be in contravention to each other. The rule of anti-dissection does not totally prohibit the consideration of each constituent elements in a composite mark. It is done to get a basic understanding of the overall impression created by the mark. When viewed holistically, they complement each other. Dissection the components of a trademark will vitiate the accuracy to assess the confusion caused by the likelihood, leaving many consequences. This rule helps in better and comprehensive evaluation of the trademarks, thereby preserving the integrity of the trademark protection.¹⁹³ When the rule of anti-dissection is settled principle in the trademark violation but when the dominant or the essential component of the trademark is used by the competitor as their trademark, creates a deceptive similarity which ultimately causes confusion and violates the object of the trademark protection.¹⁹⁴ This is when having principle of dominant feature makes sure that such violations do not go unnoticed.¹⁹⁵

Case Law Analysis

The recent judgement of the Delhi High Court in the case of *PhonePe Ltd v. Ezy Services*,¹⁹⁶ has underscored the importance of protecting trademarks as a whole and not dissecting its components. The plaintiff had sued the defendant for a permanent and absolute injunction, from using the suffix “Pe” or any variant that can be deceptive to the users. Since both of the parties offer similar services in the online payment systems. The plaintiff and the defendant differ very slightly as to whom their services are available to, consumers. The plaintiff provides online transaction services between anyone who has their app, irrespective of the nature of the transaction. Be it a consumer-to-consumer or consumer-to-merchant.

¹⁹³ Larisa Ertekin, Alina Sorescu and Mark. B. Houston, “Hands off My Brand! The Financial Consequences of Protecting Brands Through Trademark Infringement Lawsuits”, JSTOR, Vol.82. p 45-64. <<https://www.jstor.org/stable/44879063>> (last accessed on March 5, 2024).

¹⁹⁴ Yashvardhan Ranat, “Explained: PhonePe v. BharatPe Trade Mark Dispute- “Pe”/ Pay-as-you-go”, SCC OnLine, May 19, 2021. <<https://www.sconline.com/blog/post/2021/05/19/explained-phonepe-v-bharatpe-trade-mark-dispute-pe-pay-as-you-go/>>. (last accessed on February 28, 2024).

¹⁹⁵ Simranjeet Kaur, ““SUBWAY” and “SUBERB” not phonetically and deceptively similar; Delhi High Court dismisses Subway’s plea for injunction for its mark “SUBWAY” against Infinity Food’s mark “SUBERB””, SCC OnLine, January 17, 2023. <<https://www.sconline.com/blog/post/2023/01/17/subway-and-suberb-not-phonetically-and-deceptively-similar-delhi-high-court-dismisses-subway-plea-for-injunction-for-its-mark-subway-against-infinity-food-mark-suberb-legal-research-updates-news/>>.

¹⁹⁶ *Phonepe (P) Ltd v EZY Services*, 2022 SCC OnLine Del 2638.

While on the other hand, the defendant provides online payment services are exclusive to only the merchants. The court observed that the suffix “Pe” is a generic term used for “Pay” as the plaintiff is in the business of payments. Just misspelling the word, which remains phonetically identical to the original word will not change the literal meaning and has no unique stance under the trademark law to protect the same. Unless such misspellings or terms acquire their own meaning over the commercial usage.

The plaintiff’s argument was the categorization of dominant and essential features of the trademark. They argued that the word “phone” is an ordinary word and when combined with “Pe” gives “PhonePe”, thus, here the term “Pe” becomes the dominant and essential feature that needs protection against the defendant. Further adding that by keeping “P” in the “Pe”, they meant it to be a proper suffix and not as a single word. When any person with average and reasonable intelligence and recollection sees “Pe” in the defendants’ “BharatPe” will create a wrong impression of the plaintiff’s company, who have built their goodwill in the market for years before the establishment of defendant.

The defendant’s arguments relied on the principle of anti-dissection. They contested that the plaintiff had obtained the trademark protection not for “Pe” but for the whole of “PhonePe”. The idea behind this was to have an application that would work on all payment interfaces. Even if the dominant feature has to be considered, still would not amount to infringement as the words “Phone” and “Bharat” are different in all aspects. It was further put that there were no objections under section 11 of the trademark Acts, 1999 on the grounds of similarity to earlier trademarks.

The courts were challenged with the question to whether to apply the rule of anti-dissection or rule of dominant feature. It went with the rule of anti-dissection. It emphasized section 17(1), calling for a question to plaintiff that they never got their trademark protection for separate/individual components. This assumed that the consumers build perspective not from the components but from the entirety of the trademark. While it might be contended, the courts clarified that this application of the rule is just a preliminary step in the process of determination of the probable conflict in cases where there are conflicting composite words. The court further looked into the matter, as to the financial aspect, and asked the plaintiff to produce six months audit statements.

The court referred to the case of *South India Beverages Ltd. v. General Mills Mktg. Inc.*,¹⁹⁷ where it is provided that there might be cases that a particular element of a composite mark enjoys a much greater prominence than the other elements and this might call for terming that component as a “dominant mark”. Thus, it makes it clear that the rule of anti-dissection does not hinder the consideration of individual

¹⁹⁷ *South India Beverages Pvt Ltd v General Mills Marketing*, 2014 SCC OnLine Del 1953.

components of any composite marks. It can be seen that both rules are employed in arriving at the conclusion of whether there is infringement or not, making them act in consonance/ complement each other rather than being antithetical.

Further, In the case of *Allied Blenders & Distillers (P) Ltd. v. SNJ Distillers (P) Ltd.*,¹⁹⁸ the question was which part of the plaintiff's mark, Officer's Choice, was a dominant feature and which part was not. The court ruled that:

"II. In a composite mark, it is possible for both parts to be dominant. In Plaintiff's composite trademarks, [officer's choice] as an illustration, words 'Officer' and 'Choice' are both dominant. The additional factors which are pointers to the fact that 'Choice' is a dominant part of the composite marks are that : (a) restraint orders have been passed by the Courts against several third parties from using the marks which contain the word 'Choice', without the word 'Officer' such as 'Master's Choice', 'Collector's Choice', 'Our Choice', 'Sailor's Choice', 'Club's Choice', 'Spinner's Choice', 'Banker's Choice', 'Corporate Choice', etc.; (b) third parties copy the mark Choice as part of their trademark; (c) Plaintiff holds separate registrations for the mark 'Choice' in Class 32; and (d) 'Choice' is not descriptive of the goods but is arbitrary in nature."

In the case of *Sona Mandhira (P) Ltd. v. Sona BLW Precision Forgings Ltd.*,¹⁹⁹ the court ruled that:

"67. In the present case, the plaintiffs have registration in their favour, of which the word "SONA" is a predominant part. It has registrations in the word mark "SONA BLW" as well. Applying the ratio of South India Beverages Pvt. Ltd. (supra), this Court in its judgment dated 02.08.2022 passed in CS(COMM) 383/2022, titled Sona BLW Precision Forgings Ltd. v. Sonae EV Private Limited, has held that "SONA" forms a dominant part of the plaintiffs' Trade Mark, thus is entitled to protection. It is also of import that the word "SONA" otherwise cannot be said to be descriptive or even suggestive of the goods in which the plaintiff deals in. Further, the reason given by the defendants for adoption of the word 'SONA' in its corporate name does not impress me, as has been explained hereinafter"

In *Lt. Overseas North America Inc. v. KRBL Ltd.*, 2023 SCC OnLine Del 1121, the court ruled that:

"51. Applying the above test to the facts of the present case, the word 'ROYAL' remains a dominant part of the trade mark of the plaintiffs. Remove the said word, the remaining is only an embellishment. Therefore, the word 'ROYAL' per se would also be entitled to protection, though while making a comparison with the complained mark, due deference would have to be laid to the fact that the plaintiff

¹⁹⁸ *Allied Blenders & Distillers (P) Ltd v SNJ Distillers (P) Ltd*, 2023 SCC OnLine Del 2251.

¹⁹⁹ *Sona Mandhira (P) Ltd v Sona BLW Precision Forgings Ltd*, 2023 SCC OnLine Del 2184.

does not have a word mark registration.”

“52. The plea of the defendant that the word ‘ROYAL’ is common to trade also cannot be accepted at the present stage. It would have to await a final decision when the parties have led their evidence. As held by this Court in *Pankaj Goel (supra)*, a use of a similar mark by a third party in violation of the plaintiff’s right is no defence.”

In *Subhash Chand Bansal v. Khadim’s*²⁰⁰, the court ruled that:

“27. Mere use of the prefix KHADIM’S, would not take the case out of the purview of Section 29 of the Trade Marks Act irrespective of whether the word KHADIM’S is bigger, equal or smaller than the word KHAZANA. There is a strong possibility of customers findings the shoes and boots etc. being sold under the trademark KHADIM’S KHAZANA in the stores of defendant no. 2 and confusing the same with the trademark of the plaintiff on account of use of the word KHAZANA in the trademark of the defendants. Moreover, a customer of average intelligence may presume that it is the product of the plaintiff which is being sold in the stores of the defendants and that is why the word KHAZANA is written on the product and/or its packaging or the customers may presume that there is some kind of trade connection between the plaintiff and defendant no. 2 and that is why the word KHAZANA is being used as a part of the trademark of the defendants, in respect of identical products.”

In *Bata India Limited v. Chawla Boot House*,²⁰¹ the court ruled that

“24. After using the mark ‘POWER’ for almost 48 years, it cannot be said that the Plaintiff does not have a reasonable expectation of expansion into leather goods. Moreover, permitting Defendant No. 2 to use the mark ‘POWER FLEX’ today would also create a reasonable promise for Defendant No. 2 to expand the use of the mark ‘POWER FLEX’ in the sporting footwear. Thus, dissection of the product range, cannot be made so minutely i.e. sporting footwear leather footwear. Broadly these products fall under the class of footwear. It is a known fact that footwear brands usually use their brands for accessories/clothing like T-shirts, shorts, socks, belts, wallets, etc. Thus, in modern day usage, the brand is always evolving and the product category cannot be cast in stone.”

In summary, the Delhi High Court gives weight to the dominant features of a trademark, recognizes the potential for brand extensions, and takes a very comprehensive approach when it comes to determining the likelihood of confusion and infringement, considering various factors beyond the exact registered mark.

²⁰⁰ *Subhash Chand Bansal v Khadim’s*, 2012 SCC OnLine Del 4326.

²⁰¹ *Bata India Limited v Chawla Boot House*, 2019 SCC OnLine Del 8147.

Legal Framework and Criteria for Determining Dominant Features

When it comes to deciding upon disputes regarding trademarks, the most crucial aspect to be taken care of is consumer perception. Thus, the courts, while ruling upon such cases, take into consideration certain principles that are related to consumer perception of brands and their marks.

The main conundrum is between two rules: the **Rule of Anti-Dissection** and the **Rule of Dominant**

Feature.

1. Rule of Anti Dissection

It says that, in case a conflict arises over some marks, they should be considered as a whole while the discrete elements of each character should not be taken into account. The principle of the theory is that the scheme mark which is composed of elements whole with the structure will be recognized by the consumer as the whole rather than the individual parts. In a nutshell, it discourages nitpicking minor differences between conflicting marks.

Section 15²⁰² of the Trade Marks Act, 1999 states that:

“15. Registration of parts of trade marks and of trade marks as a series.—(1) Where the proprietor of a trade mark claims to be entitled to the exclusive use of any part thereof separately, he may apply to register the whole and the part as separate trade marks. (2) Each such separate trade mark shall satisfy all the conditions applying to and have all the incidents of, an independent trade mark. (3) Where a person claiming to be the proprietor of several trade marks in respect of the same or similar goods or services or description of goods or description of services, which, while resembling each other in the material particulars thereof, yet differ in respect of— (a) statement of the goods or services in relation to which they are respectively used or proposed to be used; or (b) statement of number, price, quality or names of places; or (c) other matter of a non-distinctive character which does not substantially affect the identity of the trade mark; or (d) colour, seeks to register those trade marks, they may be registered as a series in one registration”

Meanwhile, Section 17²⁰³ states that:

“17. Effect of registration of parts of a mark.—(1) When a trade mark consists of several matters, its registration shall confer on the proprietor exclusive right to the use of the trade mark taken as a whole. (2) Notwithstanding anything contained in sub-section (1), when a trade mark— (a) contains any part— (i) which is not the subject of a separate application by the proprietor for registration as a trade mark; or 15 (ii) which is not separately registered by the proprietor as a trade mark; or (b) contains any matter which

²⁰² Trade Marks Act 1999, s. 15.

²⁰³ *Ibid*, s. 17.

is common to the trade or is otherwise of a non-distinctive character, the registration thereof shall not confer any exclusive right in the matter forming only a part of the whole of the trade mark so registered.”

When these sections are read conjointly, the legislative intent behind them is clear. The intent is that all these elements that make up the trademark, need to be read as a composite work and not as an amalgamation of singular units. Thus, the courts must not go into a hyper-semantic approach to differentiate between the marks.

The very basis of this proposition is the assumption, which is centred around the consumers, in the sense that a trademark is meant to create an impact on the consumer as a whole, not as individual components.

Thus, this Rule has now become a very important parameter when it comes to trademarks. It ensures that trademarks are assessed as a composition of all its ancillaries as a whole. This is done in order to save the uniqueness so that there is no confusion when it comes to the consumers.

2. Rule of Dominant Feature

This rule only finds a faint presence in Section 11(1)(b)²⁰⁴ of the Trade Marks Act, 1999 which states that:

“11. Relative grounds for refusal of registration.—(1) Save as provided in section 12, a trade mark shall not be registered if, because of—... (b) its similarity to an earlier trade mark and the identity or similarity of the goods or services covered by the trade mark, there exists a likelihood of confusion on the part of the public, which includes the likelihood of association with the earlier trade mark.”

Courts often rely upon this as the basis for the Dominant Feature rule. The courts usually pronounce that a certain trademark has been infringed because a very strong part of the said mark has been used in the mark in dispute. Although this rule has a feeble legislative presence, the judicial backing that the rule has gotten over the years puts this rule on the same pedestal as the Anti-Dissection rule.

However, in India, the judicial footing regarding the said principles is not clear. Sometimes the court prefers the anti-dissection rule over the dominant feature rule, and sometimes the court prefers the dominant feature rule over the anti-dissection rule.

In the case of *Cadila Healthcare Ltd. v. Aureate Healthcare Pvt. Ltd. and Ors*²⁰⁵, the marks in question were “PANTOBLOC” and “PANTODAC”. The Delhi High court ruled that the marks must be read conjointly and not as different parts and ruled that the mark of the defendant was deceptively similar to that of the plaintiff.

The Delhi High Court in the case of *South India Beverages Pvt. Ltd. v. General Mills Marketing*²⁰⁶, has rightly held that these two rules are not antithetical to one another, rather they are complimentary when viewed holistically. In this case, the plaintiff has the trademark ‘HAAGEN DAZS’, while the defendant

²⁰⁴ *Ibid*, s. 11.

²⁰⁵ *Cadila Healthcare Ltd v Aureate Healthcare Pvt Ltd*, 2012 SCC OnLine Del 3940.

²⁰⁶ *South India Beverages Pvt Ltd v General Mills Marketing*, 2014 SCC OnLine Del 1953.

had the mark ‘D’DAAZ’, the High court granted the petitioner with the interim injunction from restraining the respondent from using its mark as it was deceptively similar to that of the plaintiff’s trademark. Both the parties were into the ice cream and confectionary business. The matter was further appealed in the Supreme Court.

In case of application of the anti-dissection rule, the plaintiff’s mark (‘HAAGEN DAZS’) should be compared in its entirety with the mark of defendant (‘D’DAAZ’) rather than dissecting them into different components. This would reject the claim of trademark violation as they are nowhere similar enough to cause public confusion.

In case of application of the dominant feature rule, the plaintiff’s mark (‘HAAGEN’) will be compared with the defendant’s mark (‘DAZS’), which would again reject the claim of trademark infringement.

The court in the present case harmonized the application of both the rules. It is recommended that both the rules should be applied simultaneously in deciding the case of trademark infringement. Here, the plaintiff’s mark (‘HAAGEN DAZS’), the court held that each component of the mark is equally dominant and significant and it is incoherent to choose only (‘HAAGEN’) as the dominant feature and reject (‘DAZS’) as not. Thus, by application of both the rules together, there was a clear deception by the defendant by using the mark. Furthermore, the court underlined the underlying phonetic similarities in both the marks.

The Courts have also recognized that the rule of dominant feature is not in violation of the rule of anti-dissection. “For instance, in the *South India Beverages Pvt. Ltd. v. General Mills Marketing Inc*²⁰⁷ case above, the Court observed that the principle of anti- dissection and identification of ‘dominant mark’ are not antithetical to one another and if viewed in a holistic perspective, the said principles rather complement each other. Further, the High Court of Delhi. While comparing the two Rules in the case of *Stiefel Laboratories v. Ajanta Pharma Ltd.*²⁰⁸ observed that the rule of dominant feature is not in violation of the rule of anti-dissection, rather it is a preliminary step on the way to an ultimate determination of the confusion amongst the consumers.”

At the same time, in the case of *Sabmiller India Ltd. v. Jagpin Breweries Ltd.*²⁰⁹, wherein the Plaintiff was the proprietor of the marks ‘ ’ and ‘FIVE THOUSAND’ and the Defendant claimed to be the proprietor of the mark ‘COX 5001’. The Bombay Court observed that the balance of convenience was in favour of the Plaintiff, as irreparable harm and injury would be caused to the Plaintiff if the Defendant was not enjoined from using the impugned trademark COX 5001 in respect of beer as that would lead to confusion amongst

²⁰⁷ *Ibid.*

²⁰⁸ *Stiefel Laboratories v Ajanta Pharma Ltd*, 2014 SCC OnLine Del 3405.

²⁰⁹ *Sabmiller India Ltd v Jagpin Breweries Ltd*, 2014 SCC OnLine Bom 4842.

the consumers.”

Balancing Rules

To assess which rule would be applicable, the courts utilize different techniques. Firstly, it assesses Visual, Phonetic, and Structural Similarity. Visual Similarity examines how similar the marks appear visually, Phonetic Similarity considers how similar the marks sound when pronounced and Structural Similarity analyzes the structure and makeup of the rival marks. Another test relied upon by the courts is called “triple identity test”. In this, firstly, the identity of the goods and services is analysed,²¹⁰ whether the parties offer the same or similar products or services. Second, Availability and Consumer Base is considered, as to where the products are available and who the target consumers are. If both the plaintiff’s and defendant’s products are available at the same retail outlets and cater to the same class of consumers, there’s a higher potential for consumer confusion. Apart from trademark infringement, trade dress (the overall visual appearance and design of a product) also plays a role.

Conclusion

In the assignment, the focus is put on Dominant Feature Rule, a significant principle ensuring safeguarding of intellectual property rights. The main idea of the Dominant Feature Rule is to reveal the most expressive features of a mark that is shared with less a common part. Such components give a strong trademark protection. There is nothing more important in this situation than to assess the significance of primary signs that people regard as essential factors for making a choice. This principle reinforces that courts should be guided by the salient features of a mark when using it as a measure of trademark infringement, which ensures legitimate competition and safeguards the trademark values.

The Anti-Dissection Rule, however, attempts to synthesize the concurrent distinctive feature rule by highlighting that a mark should be taken into account as the whole and not severed into its components. Thus, a rule has been adopted to scrutinize trademarks as to whether their main commercial impression appears to the average consumers. The Trade Marks Act, 1999, in section 15, 17, and 19 has an established a legal structure for part registrations of marks and gives a clear rule that complete registration of a mark conveys exclusive right to the use of the mark as a whole.

In the legal dispute over trademarks, the courts, in their judgments, closely watch the consumers’ perception because it is a key factor. There is always a complex choice among Anti-Dissection Rule of

²¹⁰ “Decision sidesteps anti-dissection rule to insist that trademark components matter”, Worldtrademarkreview, May 11, 2023. <<https://www.worldtrademarkreview.com/article/decision-sidesteps-anti-dissection-rule-insist-trademark-components-matter>>. (last accessed on March 8, 2024).

Syntax and the Dominant Feature Rule. Rule of Anti-Dissection outlaws cherry-picking fewer differences that assessments rely on, and works to consider marks as an integrated whole, as this would maintain their uniqueness, and avert the possibility of confusing customers. However, in microscope feature the dominant feature Rule mainly seeks to pin point the basic theme of the To determine infringement.

One of significant cases aspiring from has been cited as *PhonePe Ltd v. Ezy Service* that illustrates how trademarks as whole are essential to be protected rather than being given pieces for the sake of keeping each part. Judges have always said that consumers' general perception of a trademark depends more on its totality than on what those parts stand for.

The mandatory compliance with both the Non-Dissection Rule and the Prominent Feature Rule leads to a properly balanced trademarks assessment in order to block the resemblance issues that might cause confusion in the minds of the consumers.

Finally, an in-depth study of both the Anti-Dissection Rule and the Dominant Feature Rule in the search of faster and better solutions to a trademark conflict would be necessary, therefore. Appealing to the unitary nature of theoretical brands and their other features that may be regarded as the leading ones, the courts will protect the intellectual property rights and consumer rights in observing the fairness of competition in a commercial world.



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THE ROLE OF INDIAN JUDICIARY IN DETERMINING THE AMBIT OF ARTIFICIAL INTELLIGENCE IN COPYRIGHT

Kinkini Mukherjee²¹¹ & Prashna Samaddar²¹²

Abstract

The intrinsic intelligence in humans falls in stark contrast with Artificial Intelligence (AI), which is represented by technology and other structured technical entities such as robots and bots. AI completely transforms the creative industry by upending preconceived ideas and challenging copyright ownership and associated claims. It is an arena of uniqueness and inventive interaction for the Indian legislature and judicial system regarding the interplay between copyright and artificial intelligence. The judiciary's narrow interpretational scope and scant interventions have given it an overview of AI-enabled content in India. The judiciary must continue to be watchful as technology develops to handle just and equitable copyright structure. The Indian judiciary is anticipated to be a key player in interpreting copyright laws, mainly encompassing work created by artificial intelligence. The article addresses authorship and ownership concerns while offering insights into the way the Indian judiciary handles the complexity of AI's impact on copyright. The research explores the procedure of Indian Judicial discourse that has evolved the connection between copyright and AI. The research examines the way the Indian court has changed over time, evaluating key decisions, established norms, and developing patterns to determine the boundaries of AI in copyright. The article illuminates AI technology's challenges and opportunities for India's copyright laws through a thorough analysis of court decisions and interpretations.

The article clarifies the notion that the Indian judiciary ought to adjust to the latest technology developments and foresee the unique legal obstacles that arise from the incorporation of AI in creative endeavours.

Keywords: Copyright, Artificial Intelligence (AI), AI-generated content, Indian judiciary, copyright ownership

²¹¹ Research Scholar, St. Xavier's University, Kolkata.

²¹² Assistant Professor, St. Xavier's Law School, St. Xavier's University, Kolkata.

Introduction

Artificial Intelligence (AI) disrupts modern creative pursuits, posing innovative gauntlets for long-standing copyright regulations. The issues of authorship and ownership have grown more prominent in legal discourse as AI generated work becomes more rampant. The Indian judiciary has a vital role in construing and molding copyright legislation to account for the intricacies of artificial intelligence engagement. Through a review of significant instances, guiding principles and developing trends, the article examines interference of AI and copyright within the Indian legal system. The study's scope is limited to India's intellectual property laws and regulations.

Further, the research may compare the obstacles posed by AI in copyright domains in developed and developing countries. The present study offers comprehensive knowledge of legal doctrines, court rulings and developing patterns influencing the intersection of AI and copyright in India using an interdisciplinary approach that integrates legal analysis, technical insights, and socio-economic factors. This article explores the interference of AI in impacting copyright law by examining crucial cases and legislative advancements. It also emphasizes the significance of the judiciary in ensuring just and equitable copyright regime in the age of digital technology.

Concept of Copyright

The copyright corresponds to a statutory intellectual property right accorded to the creators of literary, theatrical, lyrical, and artistic works as well as to those who generate audio recordings and cinematographic movies. It includes the right to reproduce, communicate, adapt, and publish the work amid other privileges. As it protects the creators' rights, copyright also recognises and rewards their creative efforts.

The copyright act of 1957 and copyright Rules represent the legislative framework that governs India. It is vital to note that copyright preserves the original presentation of knowledge and ideas rather than just ideas and concepts. The legitimate proprietor of the copyright may claim ownership of the creation and even copyright may be awarded to legal heirs or any authorised representative.²¹³

The Copyright Act confers upon the author various economic rights, including the privilege to replicate the work, publish duplicates, execute or convey it to the public, and create adaptations or translations. Additionally, it grants moral rights to the author, encompassing the right to claim authorship, protect one's honour and reputation, and prevent false attribution of the work.²¹⁴

²¹³ Copyright Law in India, *available at* <https://www.legalserviceindia.com/article/1195-Copyright-Law-in-India.html> (last visited on August 5,2024)

²¹⁴ Interaction Between AI And Copyright: Who Has The Copyright In Ai?, *available at* <https://www.ipandlegalfilings.com/interaction-between-ai-and-copyright-who-has-the-copyright-in-ai/>(last visited on August 5,2024)

1. Concept of Ownership

As per Indian copyright Law, the exclusive owner of creative work is the individual or entity that possess copyright and is termed as “copyright holder”. This entity has the authority to determine how the work is applied, replicated, exchanged, executed or displayed. Primarily the creator of the work may be the copyright owner or it may be transferred to another person via agreements or contracts.²¹⁵

2. Notion regarding Author

Under Indian Copyright Law, “author” clarifies the individual originating the indigenous work. Composing a piece is the creator’s responsibility and is fulfilled via expertise, endeavour, and ingenuity. It is imperative to underscore that the term author does strictly refer to the writers or literary works: rather it embraces a wide range of creative expressions, including literary, musical, artistic and cinematic creations.

The definition of the author for different categories of works is delineated in Section 2(d) of the Act.²¹⁶

- The work’s creator is considered the author for literary or dramatic works.
- In the context of musical works, the composer is identified as the author.
- An artistic creation, excluding photographs, designates the artist as the author.
- Regarding photographs, the individual capturing the image is recognized as the author.
- In the case of a cinematographic film, the producer is acknowledged as the author.
- Similarly, the producer is also acknowledged as the author of sound recordings.

Copyright Law Ramifications

The issue of whether a software program can be awarded rights ignites intense debate with initial response seemingly being a firm not largely because a computer program does not have legal personhood. The works accomplished through AI are fundamentally software created meaning they are produced without human authorship. The author of the work obtains copyright protection, and in cases of computer- initiated works like literary, theatrical, musical or artistic creation the creator is viewed as the person who triggers or directs the creation process.

Authorship is determined by analysing the relationship between the creator and the creation. Neither does the existing legal framework of India specify that a computer or a software may be held

²¹⁵ Difference Between Authorship and Ownership in Copyright Law, *available at* <https://www.linkedin.com/pulse/difference-between-authorship-ownership-copyright-law-bytescare/> (last visited on August 5, 2024)

²¹⁶ Indian Copyright Act, 1957

accountable for the infringement, nor does it clarify about ownership of AI originated work. It is widely held belief that robots lack intellectual property rights since they are not liable for any acts or interactions that injure third parties. The court compared the software to an instrument in a precedent setting English case. Later in 198 the UK's "Copyright, Designs and Patent Act" section 9(3) removed the ambiguity by declaring that in the case of computer-generated works, the author is the one who makes the necessary arrangements to produce the work.²¹⁷

The Interplay of AI and Copyright

AI is a technique of imitating intelligent behaviour in software that can tackle multifaceted issues better than individuals.²¹⁸

AI has been classified into three primary categories by World Intellectual Property Organization (WIPO) "expert system, perception systems and natural language systems." Perception systems help to understand the outside world whereas natural language systems grasp words' meanings. Expert systems specialize in domains that need a great degree of expertise, such medical diagnosis and creative efforts

The ability of AI to navigate intellectual property rights (IPR) filings has greatly improved. Instances like the selfie-taking monkey highlight the issue of whether machine-generated works are registrable, emphasizing the importance of human effort. In response, the US copyright office has revised its authorship definition. Advancements in artificial intelligence have spawned technologies capable of generating original content, raising concerns regarding ownership and copyright infringement for AI-generated works.

AI can produce unique works that conflate ownership and authorship, upending established legal frameworks. Through several notable judgements, the Indian judiciary has addressed these issues and offered important new perspectives on the legal ramification of AI generated material.

Addressing Issues of Authorship and Ownership

In India, a creation must be unique and recorded physically to qualify for copyright protection according to the "Copyright Act of 1957". The originality criterion is defined through legal precedents, involving the application of sufficient judgment, skill, and labour.

'Section 17 of the Indian Copyright Act' establishes that the author or creator of the work, as the original owner, is entitled to automatic copyright protection. The "Modicum of creativity" principle emerged in the Fiest Publications case, emphasizing creativity beyond mere skill and labour.

²¹⁷AI, Copyright Law and the Requirement of Human Authorship, *available at* <https://aibusiness.com/nlp/ai-and-copyrights-the-challenging-requirement-of-human-authorship> (last visited on August 5, 2024)

²¹⁸What Is Artificial Intelligence (AI)?, *available at* <https://www.investopedia.com/terms/a/artificial-intelligence-ai.asp> (last visited on August 5, 2024)

India is a signatory to the Berne Convention, which stipulates that copyright protection begins as soon as the work is created. While registration is not compulsory, it is advisable to do so. Identifying the author and owner of AI generated works is one of the primary issues that the Indian judiciary is now dealing with. Unlike human creators, AI systems operate autonomously, raising questions about who has rights to the produced content.

To secure copyright for “literary, dramatic, musical, and artistic creations” under “Section 13 of the Copyright Act 1957”, they must demonstrate originality. However, as the act lacks a precise definition of ‘original’, the Supreme Court, in the “Eastern Book Co v D B Modak” case, embraced the ‘modicum of creativity’ guideline to ascertain eligibility for copyright protection. According to this guideline, an original work eligible for copyright must possess a “minimum level of creativity” and should not solely be the product of skill and effort. While the threshold for creativity isn’t exceedingly high, AI-generated work may fulfill this standard of originality and consequently be entitled to copyright protection. Nevertheless, once the “modicum of creativity” standard is satisfied, the subsequent pivotal inquiry under the Copyright Act pertains to establishing the work's authorship. Section 2(d) of the act affirms the author of “any literary, dramatic, musical, or artistic work which is computer-generated” as “the person who causes the work to be created”. This clarification is consistent with copyright law in the United Kingdom.²¹⁹

In addition, when organisations or corporations use AI, ownership issues are the sparking discussions about who is entitled to corporations, ownership issues are the sparking discussions about who is entitled to copyright –the developer, the programmer or the user. The Indian legal system aims to find an equilibrium between encouraging innovation and safeguarding intellectual property rights, highlighting the importance of well-defined legal structures in AI-driven creative endeavours.

The Indian Judiciary’s Emerging Significance

Adapting legal principles to developing AI mechanism is a persistent difficulty for the Indian Judiciary as technology improves. Currently copyright laws need to be construed and implemented in the context of rapidly changing technological environment. The judiciary can effectively navigate the complexities of AI involvement in copyright through proactive measures such as judicial guidelines, educational initiatives, and stakeholder engagement.

The decision in *Amar Nath Sehgal v. Union of India* by Delhi High Court provides a new light on the core idea of authorship under Indian copyright law. The court recognised the “moral rights” as specified

²¹⁹Who Owns the Copyright to AI-Generated Works?, available at <https://copyrightalliance.org/faqs/artificial-intelligence-copyright-ownership/> (last visited on August 5, 2024)

in sec 57 of the Act.²²⁰ These rights include the right to be identified as the author, the right to have the work maintained accurately, and the right to withdraw it from publication. The court noted that these rights represent a distinctive bond between creators and creation, arising from each creator's individual creative genius.

Hence, verifying the AI system's recognition of this distinctive connection between the work and its originator in AI-generated creation situations proves difficult. The AI system might encounter difficulties in grasping the moral implications and the esteem linked with the creation and its maker. As a result, even though an AI-produced piece may be deemed "original" within the present technological context and legal structure, assigning authorship directly to the AI system could present challenges.

International Outlook

In November 2020, Indian Copyright Office granted its initial approval for registering Suryast, marking Mr. Sahni as the first individual to secure copyright protection for AI-generated works. This is significant because, unlike the stance taken by the US Copyright Office (USCO) which has rejected registrations for AI-derived creations –as seen in the Thaler case—such synthetic works had not been previously protected. On the other hand, a later withdrawal notice cast doubt on RAGHAV's legal standing, suggesting that India's strategy is unclear.

Sec 2(d) (iii) and 2(d)(vi) of the "Copyright Act of 1957" were the main points of emphasis for the notice, which emphasized the necessity that an "author" be an artist of someone who create artistic works. In response, Mr Sahni narrated that Copyright Office was not authorised to review its order from the outset.

The Perspective of Office of Copyright Directives and the Thaler Ruling

The U.S. District Court focused on the *Thaler v. Perlmutter* decision, which upheld the need for copyright protection because it protects human creators. It is a major source of support for the Copyright Office Board's position. In addition, new guidelines from the Copyright Office emphasise how important it is to distinguish between AI and human authors based on whether conventional elements were designed and carried out by a machine or whether the work is predominantly the product of human authorship. In summarizing its contributions, the Board emphasised that copyright protects the expression of an idea, not the concept itself.

On the other hand, Canada acknowledged Sahni as a co- author alongside the AI tool, highlighting the global differences in legal interpretations. The Beijing Internet Court took an alternative view, granting copyright protection to AI-initiated content due to its originality and the involvement of human

²²⁰ Copyright Act 1957

supervision.

Divergent policy stances between jurisdictions prompt concerns over the necessity of human participation as co-writers and if non-human AI entities can be regarded as authors.

Situation of UK Regarding Copyright

Copyright protection for computer-composed content was first established in the UK, where Sec 9(3) of the “Copyright Designs and Patents Act of 1988(UK)” indicates that computer authored works are subject to copyright protection. According to this section, the creator of AI-developed work is considered to be ‘the individual who made the preparations required to produce the work. While Section 9(3) was initially proposed to offer sufficient protection to investors in satellite photography, additional reasons for its implementation included recognizing the reality of computer technology’s role in producing materials eligible for copyright protection, ensuring flexibility for future technological advancements, and aiming to future-proof copyright law amidst rapid technological changes. Moreover, the intention was to simplify the comprehension of copyright law.’²²¹

Australia

In Australia, the ‘Copyright Law Review Committee Report’ regarding the safeguarding of computer software advised integrating a comparable provision into the Australian Copyright Act of 1968 (Cth). However, this proposal was not enacted into legislation. The ‘necessary arrangement’ assessment wouldn’t be entirely novel in an Australian context. For instance, concerning cinematographic films, the “Copyright Act of 1968” (Cth) attributes copyright to the ‘maker’ of a film. The ‘maker’ of a film is defined as ‘the individual who undertook the necessary arrangements for the production of the film.’ As per established legal precedents, the maker could be the film’s producer/investor, the film director, or both jointly, depending on their respective contributions.

Legal and Legislative Considerations

In India the “Copyright Act of 1957” presents its own set of hurdles in acknowledging AI-generated works. The Act provides copyright protection to human works, creating uncertainty for works generated solely by AI algorithms. While the European Union regards such works as under human ownership with appropriate oversight, India’s legal framework lacks clear provision, putting a closer evaluation of definitions of Author and work.”

²²¹ *Law of Artificial Intelligence*, 302-316,(Sweet & Maxwell, United Kingdom)
<<https://www.sweetandmaxwell.co.uk/Product/Information-Technology-Law/Law-of-Artificial-Intelligence-The/Hardback/43171250>> (last visited on August 5, 2024) Matt Hervey and Mathew Lavy, *et.al.*,

AI-Generated Content

The qualification of copyright protection for content generated by AI prompts apprehensions. As per copyright regulations, the primary copyright holder of a creation is acknowledged as its author. Nevertheless, the existing “Indian Copyright Act of 1957” does not explicitly tackle AI-generated content or acknowledge AI as a creator. A significant limitation in granting copyright protection to AI works is that, under the law, the work must demonstrate originality and creativity to qualify for such protection. Originality is a key factor in assessing the availability of copyright protection for a work. Section 13 of the Indian Copyright Act stipulates that copyright protection extends to “original literary, dramatic, musical, and artistic works.” However, the concept of originality is not explicitly defined, leaving it to the courts to determine whether a work meets the threshold of being “original” enough.

Content produced by AI might not meet the standards of originality or creativity since it frequently depends on information collected from diverse existing sources on the internet and data furnished during its training.

In 1994, the Copyright Act in India was amended to encompass “computer-generated works, including literary, dramatic, musical, or artistic works”. Section 2(d)(v) was introduced to define the authorship of such works as “the person who causes the work to be created.” However, the interpretation of the term “person” becomes crucial, as currently only natural persons are recognized as authors under the law. Therefore, it is essential for the law and the courts to clarify the legal status of AI - whether AI can be considered a ‘person’ under the law, and if so, to what extent.

“In different legal instances, such as a copyright dispute involving CBSE regarding exam papers, the Delhi High Court stressed that only human beings can be credited as authors, and copyright cannot be claimed without proof of personal contribution to the creation of those papers. Similarly, in another case, the Delhi High Court declined to recognize copyright claims over computer-generated lists due to a lack of human intervention.

A notable instance revolves around an AI-driven application named ‘Raghav,’ initially recognized as a co-creator of a copyrighted piece. However, the Copyright Office subsequently raised objections to this and moved to annul the registration. Although the attempt to register AI (RAGHAV) as the exclusive creator was denied, the Indian Copyright Office approved the application where the originator was designated as a co-creator alongside the AI tool.²²²

²²² Who owns AI-generated works? Here’s what the laws say copyright issue, *available at* <https://www.indiatoday.in/law/story/chatgpt-ai-generated-content-copyright-ownership-complexities-india-2439165-2023-09-22> (last visited on August 5, 2024)

Uncertainties in AI-Created Content

As AI systems lack natural personhood and AI-produced works are classified as computer-generated compositions. as defined in Section 2(d) of the Copyright Act, uncertainties arise in identifying the “individual who caused the creation of the work”. This leads to uncertainties regarding whether the creator of the AI system, the proprietors of the AI technology, corporations, or financial backers in the AI industry, or the end user who employs the AI system to generate specific outcomes hold authorship rights. The lack of clarity and intricacies in determining the authorship of an AI-produced piece pose challenges in identifying the ‘first owner’ of copyright under “Section 17 of the Copyright Act,” typically the originator of a creation, subject to certain legal exemptions. Another complication arises from the fact that Indian copyright law allows copyright ownership in certain instances to non-natural, legal, or juristic entities (like corporations, institutions, or government bodies).

Therefore, if forthcoming AI systems are recognized as legal entities, they could conceivably be awarded copyright ownership under certain conditions. However, this could raise concerns regarding the transferability of copyright and the financial and commercial aspects of copyright ownership. AI systems are generally not recognized as natural person, eliminating the issue of granting copyright authorship to AI systems. Nevertheless, the distinction between AI systems and legal person appears to be unclear. Indian judiciary has not yet tackled these complex issues concerning AI-produced content and copyright authorship and ownership.

Identifying Artificial Authors within Modern Legal Systems

In the context of machine-generated works and the application of provisions to bring AI creations within the scope of copyright law, the concept of “work made for hire” warrants examination. This concept typically applies to arrangements between employers and employees. Essentially, when a work is created for an employer, the employer is considered the rightful owner of the work unless there’s a prior agreement granting copyright ownership to the author (employee).

The principle of work made for hire could potentially serve as a mechanism to encompass AI-generated works under copyright law. In this scenario, the developer or licensee of the AI could be designated as the owner, with the option to transfer ownership to a legal entity. This adjustment may require amendments to copyright legislation to facilitate such modifications effectively.²²³

²²³ Kalin Hristov, “Artificial Intelligence and Copyright Dilemma”, 57 *IDEA: The IP Law Review* (2017)

Copyright by the Indian Copyright Office Protects AI-Created Works

The privileges granted to the proprietor to execute or permit specific actions (like duplication, dissemination, modification, and interpretation) concerning a piece of work are denoted as “Copyright” as per Section 14 of the Copyright Act of 1957.²²⁴

Moreover, as outlined in Section 17 of the statute, the originator of the creation is typically recognized as the initial holder of the copyright. However, if the work is generated under a contractual agreement for a fee and at the behest of the employer, then the employer assumes ownership rights over the work. In the context of works generated by AI, it’s crucial to note that the outcome is contingent upon the data provided to the AI program, whether in terms of content, parameters, or scope. AI necessitates programming to yield results, and the content it generates may rely on either publicly available information or data accessible and analyzable by the AI.²²⁵

Copyright Disputes in AI

Copyright laws are specifically designed to foster creativity and protect the original works of creators from unauthorized use. While determining the authorship or ownership of traditional works is generally straightforward, AI-generated works become more complex.

Copyright law can address AI-generated works in three ways:

1. It can choose not to grant protection to AI-generated works.
2. It can assign authorship to the AI
3. It has the ability to assign authorship to the AI program’s developers, who created the work

In copyright law, joint ownership is usually awarded when several people collaborate on a single creation. The query arises whether AI composed works may be awarded copyright. In overall, AI-generated works could be eligible for copyright law protection as they might signify the “de minimis” requirement

A framework for joint authorship- where in the AI and the user who created the output share copyright could be established by legal modifications. This could assist to settle disputes about copyright ownership of AI generated works, particularly since the creation of these works frequently involves human guidance. Currently India lacks legislation that would make AI systems obligated for copyright violations. Individuals are usually held accountable for copyright infringement. One could be held liable if they were the ones who developed the AI that caused the infringement. If there was no intent to

²²⁴ Artificial Intelligence and Copyright-The Authorship., available at <https://ssrana.in/articles/artificial-intelligence-and-copyright-the-authorship/> (last visited on August 5, 2024)

²²⁵ Doctrine of “Work For Hire” under the Copyright Law , available at <https://amlegals.com/doctrine-of-work-for-hire-under-the-copyright-law/> (last visited on August 5, 2024)

violate copyright, it may be difficult to establish human involvement.

Future Recommendation

In order to promote innovation, creativity, and legal certainty, the Indian judiciary must play an indispensable part in defining the scope of AI in copyright. Walking forward, the judiciary must continue to be watchful regarding new legal issues forwarded by AI. The judiciary can ensure a just and equitable copyright regime that accommodates the transformative potential of AI by embracing interdisciplinary approaches, fostering collaboration between legal and technological experts and placing a high priority on public interest.

A resolution recently highlighted by the committee on Legal Affairs of the European Parliament stressed the need to broaden the definition of “original intellectual” creation, especially regarding copyrightable works produced by computers and robots. The proposed motion urged the European Commission to consider the most sophisticated autonomous robots the status of electronic persons, thereby assigning them specific rights and responsibilities. This resolution was based on Mady Delvaux’s report on robotics and AI.

The multiple issues arises to re-evaluate our intellectual property laws. Examples of concerns include the nature of ownership pertaining to works (partially) created by AI machines and how to protect and encourage investment for artists and industries working with such systems. To address these concerns, the Committee advocates for establishing “common Union definitions” and implementing a “comprehensive Union system for registration,” complete with criteria for categorizing robots.²²⁶The Indian judiciary stands at the forefront of navigating the intricate intersections of AI and copyright, shaping legal precedents that will define the future of creative expression in the digital age.

Judicial Discourse

In accordance with the ruling of the Supreme Court of India in the case of “*Eastern Book Company & Ors v. D.B. Modak & Anr.*,”²²⁷ asserting copyright over a compilation requires the author to have employed both skill and judgment in its creation. This compilation need not necessarily be inventive or original in the conventional sense, but it must not merely be the product of routine labour and resources. The derivative work produced by the author must exhibit distinctive qualities and characteristics, thereby necessitating the demonstration of skill and judgment in every compilation or derivative

²²⁶ The future of labor unions in the age of automation and at the dawn of AI *available at* <https://www.sciencedirect.com/science/article/pii/S0160791X21002074> (last visited on August 5, 2024)

²²⁷ *Eastern Book Company & Ors v. D.B. Modak & Anr.* (2008) 1 SCC 1

work.²²⁸

Regarding infringement, determining liability becomes a concern if AI-generated content is deemed and safeguarded under copyright law. Section 51²²⁹ explicitly specifies that an individual can only commit copyright infringement. Therefore, in India, there is currently no clear legal standing for AI in this regard.

The NITI Aayog in India stressed the need for a strong and enforceable AI-related IPR framework. It should be possible for the artists to make profit and be recognised for their creative endeavours with this framework. It recommended establishing a task force to assess and develop appropriate measures, with members drawn from the Department for Promotion of Industry and Internal Trade and Ministry of Corporate Affairs. The Indian government is considering adopting national AI strategy and drafting a cabinet memo to carry it out.

The judgment in *Amar Nath Sehgal v Union of India*²³⁰ by the Delhi High Court provided valuable insights into the concept of authorship within Indian copyright law. In this ruling, the court acknowledged the existence of “author’s moral rights” as outlined in Section 57 of the Copyright Act. These rights encompass the right of attribution, the right to preserve the integrity of a work, and the right of withdrawal. The court noted that these rights stem from individual creators’ unique creative power and charisma, establishing a special bond between them and their work.²³¹

In the case of *Tech Plus Media Private Ltd v. Jyoti Janda*,²³² it was held that plaintiff was juristic person so he could not be the author of the work created by AI.²³³

Consequently, in cases involving AI-generated works, recognising the unique bond that the AI creates between author and the work grows complex. AI might discover challenges to comprehend the underlying moral values and the prestige of the work and its creator.

Therefore, while AI-produced content may meet the criteria of being “original” within the present scenario technological environment and legal framework, attributing authorship to the AI system itself may prove difficult.

²²⁸Eastern Book Company & Ors vs D.B. Modak & Anr on 12 December, 2007 , available at <https://indiankanoon.org/doc/1062099/> (last visited on August 5, 2024)

²²⁹ Copyright Act 1957

²³⁰ Amar Nath Sehgal v Union of India, 117(2005)DLT17

²³¹ Amar Nath Sehgal v Union of India, available at <https://www.theipmatters.com/post/amarnath-sehgal-v-union-of-india> (last visited on August 6, 2024)

²³² Tech Plus Media Private Ltd v. Jyoti Janda CS(OS) 119(2010)

²³³ Pokhariyal P, Kashyap AK and Prasad AB, ‘Artificial Intelligence: Law and Policy Implications’ (Lawpustak.com) available at <https://www.lawpustak.com/products/artificial-intelligence-law-and-policy-implications-purvi-pokhariyal-amit-k-kashyap-and-arun-b-prasad-1st-edition-2020-reprint-2023>.(last visited on August 6, 2024)

Way Forward

- In an effort to apply AI for social and economic development, the Indian government has established the AI Task Force and the “AI for All” policy.
- The intellectual property framework needs to be reviewed in light of the swift progress in AI technology to ensure that the law adjusts accordingly.
- It may be amended to recognise AI as authors under the Indian Copyright Act.
- Clarifying that a natural or legal person should nonetheless be the owner of the work is crucial.
- To guarantee that accountable parties may be sued, this is required. Nevertheless, additional issues come up, such when one individual creates AI but produces results based on inputs from another. It is vital to prove copyright ownership among the parties concerned in situations such as these.
- Any legal framework that seeks to assign authorship to artificial intelligence (AI)—whether entirely or in part—must address these issues and offer thorough responses.

Conclusion

As AI systems progress in areas traditionally linked to human abilities, such as creativity and independence, long-held views on human intelligence and intellectual output are being questioned. This evolution is putting pressure on current legal systems to evolve. With reduced human participation in AI system and the production of AI created content, global policy makers may eventually need to create frameworks and regulations that tackle the ethical, commercial, and liability dimensions of copyright for these creations. It will be fascinating to see how laws evolve to encourage and reward AI developers and users while addressing the potential legal status and recognition of AI systems.

Maintaining a balance between promoting AI innovation and safeguarding copyright holders’ rights is crucial as AI technology develops. To overcome these legal issues and support the development of AI in India, copyright laws must be modified, fair use in the context of AI be acknowledged, and strong governance structures be put in place.



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**STANDARD ESSENTIAL PATENTS IN ICT: EXPLORING FOUNDATIONAL
CONCEPTS AND COMPARATIVE APPROACHES FOR PREVENTING
HOLD - UP**

Animesh Pratap Singh²³⁴

Abstract

In the swiftly evolving realm of Information and Communication Technology (ICT), emerging technologies continually present novel challenges to the legal sphere. Amidst this paradigm shift, the issue of 'Standard Essential Patents' (SEPs) and their implications on the ICT sector have gained prominence. For the past two decades, ensuring 'fair, reasonable, and non-discriminatory' ('FRAND') royalties and licensing terms for SEPs have been a major concern for 'Standard Setting Organizations' ('SSOs') and the states. SEPs are patents included in a Standard by an SSO, such as in 5G, Bluetooth, and Wi-Fi technological standards. They are considered essential to that standard and thus cannot be circumvented for implementation. When any patent is included in a standard, it gives a SEP holder monopoly-like power, and its refusal to strike a deal can cause significant harm to a firm that operates within that standard. The SEP holder may take advantage of this position by demanding royalties and imposing conditions that may be greater than the patent's actual licensing value, potentially causing a Patent hold-up problem. They can compel an implementer to comply with their unreasonable demands by threatening injunctions or other recourses against patent infringement. To reduce this risk, SSOs ask the patent owners to license their patents on a FRAND basis in exchange for better licensing opportunities provided by including their patents in the standard.

The terms of FRAND have been subject to much litigation. The breach of FRAND terms has also been construed by antitrust/competition agencies as a ground for action under antitrust laws. Some courts have agreed that their cause of action is valid, while others prefer to see it as a breach of contract. As a result, different approaches towards the same problem have emerged. The purpose of this article is to

²³⁴ Fulltime PhD Candidate, Dr. RML National law University, Lucknow.

review the concept of SEP and the approaches of various jurisdictions in terms of the extent of antitrust involvement in mitigating patent abuse and the issuance of injunctions by courts in cases of patent infringement. The Jurisdictions discussed in this review will be “The United States of America” (“US”); “European Union” (“EU”); “The Peoples Republic of China” (“PRC”); Japan; Germany; India; United Kingdom (“UK”) and Republic of Korea (“ROK”).

Keywords: Standard Essential Patents (SEPs); Information and Communication Technology (ICT); FRAND; Patent hold-up; Antitrust; Competition.

Introduction

Standard Essential Patents (SEPs) are pivotal in the Information and Communication Technology (ICT) sector by ensuring interoperability and standardisation across various technological platforms, such as 5G, Bluetooth, and Wi-Fi. As integral components of industry standards, SEPs facilitate seamless communication and integration of diverse technologies, driving innovation and market competitiveness. However, the management and licensing terms of SEPs raise critical issues regarding fair access, competition, and the balance between patent protection and public interest in the rapidly evolving landscape of ICT.

In general, ‘Standard Essential Patents’ (‘SEPs’) are those patents the implementer must licence to follow the industry standard of a practice or equipment. Standard Setting Organisations (‘SSO’) prescribe such standards. The participants of such SSO volunteer to include their patents in making a standard in return for licensing them to the relevant parties at “*fair, reasonable and non-discriminatory*” (‘FRAND’) terms and pricing. It has proven difficult for the courts to determine whether SEPs are being offered on a FRAND basis or in an exploitative manner.²³⁵ Whenever a SEP holder refuses to license in line with its FRAND obligation it creates a *Patent hold-up* situation. However, interpreting pricing or other conditions as mischief to determine the presence of a Hold-up is a difficult task. It’s because it must always be justified by adequate legal support, and there is a severe lack of codification covering this aspect.²³⁶ The lack of such laws may create a vulnerable environment for small firms which lack an R&D facility and rely on licenses given by the dominant parties for manufacturing and remaining relevant in the market. Hence, calls for an increased intervention of Antitrust authorities in this sector have been consistent in the last two decades. The focus has been on figuring out the validity

²³⁵ Mark A. Lemley & Carl Shapiro, ‘A Simple Approach to Setting Reasonable Royalties for Standard-Essential Patents’ (2013) 28 BERKELEY TECH. L.J. 1135 [hereinafter Lemley & Shapiro I]

²³⁶ Raghavi Vishwanath ‘Demystifying the Indian FRAND Regime: The Interplay of Competition & Intellectual Property’ (2016) 21 J. of IPR 89

of patent hold-up.²³⁷

On the other side, there is a popular argument against the involvement of an antitrust regulator. The primary reason is that if an arbitrary price or terms without proper reasoning and consistency is set upon a SEP license, time and again, then it will gradually disincentivise the IPR regime. Furthermore, it may tip the scales in the infringer's favour by weakening the consequences of infringement, making them less likely to negotiate in good faith.²³⁸

This conundrum has resulted in a variety of approaches in various jurisdictions, resulting in innovative outlooks towards SEPs. The former section of the article attempts to elucidate the fundamental concepts that come together to form a SEP. The latter part of the article provides a comparative review of the approaches used by the world's leading economies to respond to the issues that come hand in glove with SEPs. In particular, their views on grant of injunctions against SEP infringement and the extent of antitrust intervention.

Functional Concepts Behind SEP

Patents

A patent is a category of exclusive intellectual property, '*granted for an invention, which can be a product or a process, that lays out in general, a new way of doing something or offers a technical solution to a problem*' distinct from already existing solutions.²³⁹ It is territorial.²⁴⁰ Hence, the validity of the patent is derived from the local laws of a state; ergo- its form, scope, and extent vary by state. However, as globalisation and worldwide trade grew, international collaborative efforts to create homogeneous and consistent patent systems increased. Resulting in *the Patent Cooperation Treaty*²⁴¹ and the W.T.O. Agreement on '*Trade-Related Aspects of Intellectual Property Rights*'²⁴² ('TRIPS'). Under them, the nation-states have agreed on minimal protection requirements for their municipal patent systems. States have enshrined statutory obligations in their local patent laws to provide consistent

²³⁷ Eliza G. Petrisci 'The Case of Unilateral Patent Ambush Under EC Competition Rules' (2013) 28 WORLD COMP. 25,26

²³⁸ *Id.*

²³⁹ Wipo.int., 'Patents' WIPO, <<https://www.wipo.int/patents/en/>> (last visited Aug. 20, 2024).

²⁴⁰ *Id.*

²⁴¹ Formed in 1970: provides for a unified procedure and a window for filing patents and formation of an International Searching Authority (ISA).

For more info.: Wipo.int., *PCT – The International Patent System*, WIPO, <https://www.wipo.int/pct/en/> (last visited Aug. 20, 2024).

²⁴² Came into force in Jan 1995; gave minimum standards for IPR protection and a channel for dispute resolution.

For more info.: wto.org., *TRIPS — Trade-Related Aspects of Intellectual Property Rights*, WTO, https://www.wto.org/english/tratop_e/trips_e/trips_e.htm (last visited Aug. 20, 2024).

enforcement of patent rights and to set a consistent period for those rights to be protected.

A patent in general does not bestow an affirmative right to use an invention. Rather, it is a legal title that grants a negative right: the ability to prevent others from using or applying the invention.²⁴³ It grants a patentee a right that without their permission, third parties may not use, create, sell, import, offer for sale, stock, or distribute the product (including a product produced using a patented manufacturing process).²⁴⁴ It must have some material utility i.e., the invention must be 'useful' as per the understanding of a reasonable person related to the field of that invention.²⁴⁵ It rewards the creative efforts of the innovator and promotes innovation by incentivising the patentee to innovate. The right is limited by time, and states have agreed to provide at least 20 years of protection under the TRIPS agreement.²⁴⁶ However, the total duration can vary based on the invention's nature and state laws.

When a party violates the patent holder's legal rights in any way while it is still under protection, that violation is referred to as a 'patent infringement'.²⁴⁷ The patentee has the right to seek either compensatory damages or an injunction to prevent the invention from being further manufactured, used, sold, or imported in the future.²⁴⁸ However, the patentee must show that an infringement has occurred to exercise its rights.²⁴⁹

The alleged infringer is allowed to pursue defences provided by the patent law.²⁵⁰ If the infringer fails to justify its breach, the patent holder must satisfy the court that an injunction is the only appropriate remedy and that all other legal remedies would be insufficient or inadequate.²⁵¹ Additionally, if damages are sought, the patent holder must corroborate and justify the amount claimed as damages.²⁵²

²⁴³ Anne Layne-Farrar & Richard J. Stark, *Licence to All or Access to All? A Law and Economic Assessment of Standard Development Organizations' Licensing Rules*, 88 GEO. WASH. L. REV. 1307, 1311 (2020). [hereinafter Farrar & Stark]

²⁴⁴ TRIPS: Agreement on Trade-Related Aspects of Intellectual Property Rights, § 28(1) Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, 1869 U.N.T.S. 299, 33 I.L.M. 1197 (1994). [hereinafter TRIPS Agreement]

²⁴⁵ Lizaveta Miadzvedskaya, *Encouraging Frand-ly Negotiations: A Comparison of the United States and European Approaches to Allowing Injunctive Relief in Cases Involving Frand-Encumbered Standard-Essential Patents*, 18 Wash. U. GLOBAL Stud. L. REV. 723, 727 (2019).

²⁴⁶ TRIPS Agreement, *supra* note 38, at § 35.

²⁴⁷ PATENT INFRINGEMENT, LII CORNELL LAW SCHOOL, https://www.law.cornell.edu/wex/patent_infringement, (last visited Aug. 20, 2024).

²⁴⁸ Hovenkamp, Herbert J., "The Intellectual Property-Antitrust Interface". FACULTY SCHOLARSHIP AT PENN LAW. 1979, 2001 (2008). available at https://scholarship.law.upenn.edu/faculty_scholarship/1789 (last visited Aug. 20, 2024). [hereinafter Hovenkamp I]

²⁴⁹ Farrar & Stark, *supra* note 243, at 1312

²⁵⁰ *Id.*

²⁵¹ Miadzvedskaya, *supra* note 245, at 728.

²⁵² Farrar & Stark, *supra* note 243, at 1312.

Commonly, a patent holder can profit from a patent by (i) using the rights granted by the patent; (ii) assigning the patent to another entity; (iii) *or licensing the patent to a third party*.²⁵³

Licensing Of Patents

A license is a '*certificate or the document itself which gives permission*'.²⁵⁴ In terms of the patent law, it is formal acceptance by a patentee under the concerned patent regulations to desist from bringing patent infringement claims against the designated patents, against a named party.²⁵⁵ A license is prima facie proof of a patent holder's consent to not exercise its negative rights against the licensees. A patent empowers the patentee to exclude others; a license is a *voluntary* waiver of that right by the patentee in favour of the licensee. It is a method of leveraging a patent by allowing the rights holder to enter into contracts subject to certain restrictions with others, enabling them to utilise the protected invention to generate goods or services in exchange for compensation.²⁵⁶ In some special cases, through statutory provisions such as compulsory/mandatory licensing, the state may waive the patent holder's rights on behalf of the patentee.²⁵⁷

The basic dimensions of the licensing agreement include the *identity of the entity* to whom the license has been granted. Additionally, it includes the *time* for which the license has been granted and the geographical limitation of the license, i.e., whether it is a global or a regional license.²⁵⁸ Other dimensions covered under a licensing agreement include the scope of royalties, non-compete clauses and best endeavours, no-challenge clauses, restrictions on the field of use, improvements, tying and bundling, pricing, and terms & conditions, among others.²⁵⁹

The patent holder has a fair share of autonomy over deciding whether or not to grant a license.²⁶⁰ However, this right is not absolute. In cases where the larger public interest is at stake, states have retained power over granting licenses outside the right-holders consent through patent law and antitrust devices.²⁶¹ Additionally, the patent holder can cut down the full strength of his licensing rights of their own accord by entering into contracts that impose a licensing obligation on the patent holder. For

²⁵³ DAVID BAILEY & LAURA ELIZABETH JOHN, Eds. BELLAMY & CHILD: EUROPEAN UNION LAW OF COMPETITION 774 (Oxford, 8th Ed., 2018). [Hereinafter BAILEY & JOHN].

²⁵⁴ BLACK'S LAW DICTIONARY, 1067 (9th Ed. 2009).

²⁵⁵ Farrar & Stark, *supra* note 243, at 1315.

²⁵⁶ BAILEY & JOHN, *supra* note 253, at 775.

²⁵⁷ *Id.* at 801-802.

²⁵⁸ Farrar & Stark, *supra* note 243, at 1316.

²⁵⁹ RICHARD LEWSI & DAVID BAILEY, COMPETITION LAW, Oxford, 8th ed., 789-791 (2018) [hereinafter LEWSI & BAILEY].

²⁶⁰ *Id.* at 777-778.

²⁶¹ *Id.*

instance, patent owners who agree to licence their patents on ‘*fair, reasonable, and non-discriminatory*’ (‘FRAND’) terms in return for having their patent used in a standard.

Meaning Of Standards

Establishing a standard is a way to ensure ‘*stability, general recognition, and conformity to established practice*’.²⁶² The definition compiled by the ‘ISO/IEC Guide 2:2004’ has been endorsed by WIPO in the context of Intellectual property rights. It confers that standard means a ‘*document, established by consensus and approved by a recognised body, that provides, for common and repeated use, rules, guidelines or characteristics for activities or their results, aimed at the achievement of the optimum degree of order in a given context.*’²⁶³

Standards, overall, ensure that products, processes, and services are of good quality and dependable. They serve as a benchmark against which objective convenience, human safety, health, and environment could be secured.²⁶⁴ In terms of technology, standards are technical specifications that provide a uniform format for a product or a process.²⁶⁵ They encourage *interoperability*, allowing technology to communicate in the same language and follow the same methods. They aid in understanding how a concept might be implemented, bridging the gap between invention and effective product commercialisation.²⁶⁶

Benefits Of Standards

- Standards promote interoperability, which boosts network effects and increases consumer convenience.
- It ensures that all products meet a minimum standard of quality and safety.
- They promote knowledge dissemination not only in the field of that standard but also in related fields.²⁶⁷
- It promotes the interaction between different products and lowers switchover costs for the consumer.²⁶⁸
- It safeguards buyers from being left out or stranded.²⁶⁹

²⁶² BLACK’S LAW DICTIONARY, 1576 (9th ed. 2009).

²⁶³ WIPO, STANDING COMMITTEE ON THE LAW OF PATENTS, THIRTEENTH SESSION, *Standards and Patents 8, SCP/13/2*, 18th Feb 2009, https://www.wipo.int/edocs/mdocs/scp/en/scp_13/scp_13_2.pdf (last visited Aug. 20, 2024). [hereinafter SCP/13].

²⁶⁴Id. at 9.

²⁶⁵ Mark Lemley, *Intellectual Property Rights and Standard-Setting Organizations*, 90 CAL. L. REV. 1889, 1896 (2002).

²⁶⁶ Andre Schevciw, *The Unwilling Licensee in the Context of Standards Essential Patent Licensing Negotiations*, 47 AIPLA Q. J. 369, 375 (2019).

²⁶⁷ Miadzvedskaya, *supra* note 245, at 725.

²⁶⁸ *Id.*

- By optimising network effects it encourages creativity and innovation.
- It increases competition within an open standard.²⁷⁰
- Standards lead to the development of secondary markets, enabling small-scale businesses to participate in value addition or make replacement parts of products developed by bigger firms.
- The risk of the purchased equipment quickly becoming obsolete is reduced for the consumers.²⁷¹
- Standardisation lowers the cost barrier to entry for newcomers and increases the incentive to invest in standardised technology.²⁷²
- Standardisation broadens the client base for standard-compliant goods and stimulates the adoption of new technologies and equipment. This results in the generation of profit sooner than would otherwise be the case in the absence of standardisation.²⁷³

Types Of Standards

When technology or a system is extensively adopted by market participants and widely accepted by the public, it is referred to as a ‘*de facto standard*’. It becomes the leading technology on the market, even if it has not been formally certified by a recognised standard-setting authority.²⁷⁴ For instance, the qwerty format for keyboard inputs. However, when a standard is recognised or mandated by a formal organisation governing a specific area of standards, the recommended standards are known as “*de jure standards*”, e.g. *Wi-Fi 5 or 6*.²⁷⁵

Standard Development Organisations (SDO)/ Standard Setting Organisations (‘SSO’)

SDOs and SSOs are voluntary entities with the role of coordinating and facilitating the development of standards with the active involvement of different stakeholders.²⁷⁶ They try to build a consensus among stakeholders to reach a standard, and once they do, the SSO acknowledges the agreement, making it a *de jure* standard. A popular example of a *de jure* standard is ‘*Bluetooth*’, a short-range wireless technology standard for transferring data between devices over small distances utilising radio waves ranging from 2.402 GHz to 2.48 GHz. It is managed by an SSO ‘*Bluetooth Special Interest Group*’ (‘SIG’),

²⁶⁹ Carl Shapiro, *Navigating the Patent Thicket: Cross Licenses, Patent Pools, and Standard Setting*, 1 INNOVATION POL’y & ECON. 119, 138 (2000).

²⁷⁰ *Id.*

²⁷¹ Philippe Chappatte, *Frاند Commitments - The Case for Antitrust Intervention*, 5 EUR. COMPETITION J. 319, 323 (2009).

²⁷² *Id.*

²⁷³ *Id.*

²⁷⁴ SCP/13, *supra* note 263, at 10.

²⁷⁵ *Id.*

²⁷⁶ *Id.*

comprising over 35,000 member companies in telecommunication and related fields.²⁷⁷ Similar to SIG there are more than 1120 organisations across different fields of industry overseeing standards.²⁷⁸ SSOs, as per geographical parameters, can be of two types: *International* and *Regional*. ‘*The International Organization for Standardization*’ (ISO), is an example of an international SSO responsible for developing and coordinating international standards with global impact and having representatives from different SSOs and governments. SSOs can also be *regional*, such as the ‘European Telecommunications Standards Institute’ (ETSI) and ‘The African Organization for Standardization’ (ARSO), establishing standards for use in a specific location. A typical SSO's membership might be made up entirely of universities, commercial enterprises, distributors, governmental entities, or a combination of all.²⁷⁹ In the late 1800s, many of the first industry-wide SSOs were formed, some of which are still in service today to standardize industry advancements.²⁸⁰

SSOs have debated whether or not to include patented inventions in the creation of standards for the past 70 years.²⁸¹ During the initial years of the debate, there was general disapproval towards it due to the concerns that including a patent into a standard would promote ‘*monopolistic tendencies*’.²⁸² However, because of the utilitarian benefits and unavoidability (discussed in the next heading) of embedding a patent into a standard and the emergence of legal devices that could be used to mitigate monopolistic tendencies, the amalgamation of privately owned patents into standards was universally accepted giving rise to *Standard Essential Patents*.²⁸³

Standard Essential Patent (“SEP”)

A SEP is a patent included in a de-jure standard by an SSO.²⁸⁴ It necessitates the acquisition of a license by any *implementor* who wants to utilise the standard.²⁸⁵ In the matter of *In Re Innovatio*, the District Court for the North District Of Illinois East (US) observed that a patent becomes essential to a standard because no other ‘commercially and technically feasible non-infringing alternative’ exists.²⁸⁶ Hence,

²⁷⁷ *about us*, Bluetooth Special Interest Group, <https://www.bluetooth.com/about-us/> (last visited Aug. 20, 2024).

²⁷⁸ Standards Setting Organizations List, Constortium.info SSO List - ConsortiumInfo.orgConsortiumInfo.org (last visited Aug. 20, 2024).

²⁷⁹ Robert D. Keeler, *Why Can't We Be (F)rands: The Effect of Reasonable and Non-Discriminatory Commitments on Standard-Essential Patent Licensing*, 32 CARDOZO ARTS & ENT. L.J. 317, 321 (2013).

²⁸⁰ *Id.*

²⁸¹ Jorge Contreras, *A Brief History Of FRAND: Analysing Current Debates In Standard Setting And Antitrust Through A Historical Lens*, 80 ANTITRUST L. J. 39, 43 (2015). [Contreras II]

²⁸² *Id.*

²⁸³ *Id.* at 41.

²⁸⁴ Standard Essential Patents, EUROPEAN COMMISSION, https://ec.europa.eu/growth/industry/policy/intellectual-property/patents/standards_en (last visited Aug. 20, 2024).

²⁸⁵ Anita Alanko, *The New Madison Approach to Antitrust Law and Intellectual Property Law*, 28 CATH. U. J. L. & TECH 219, 227 220 (2020).

²⁸⁶ *In re Innovation IP Ventures, LLC Patent Litig.*, 956 F. Supp. 2d N.D.Ill 925, 933. (2013)

when claims are read on any element of a standard in such a way that using the standard without infringing is impossible, the patent becomes ‘*essential*’ for a standard.²⁸⁷ For instance, patents are needed to develop devices that follow a technology standard of 5G cellular networks.

SEP is an agglomeration of the concepts discussed above. It is a mix of extremes. It is an intellectual property protected by exclusivity and negative rights and also a standard open to all, which must be made fairly available to everyone who applies to license it.

The Emergence of SEPs

SEPs have gained a central position in technology-related policy discussions due to rapid advances in *information and communication technology* (ICT’) over the last three decades. The ICT revolution is visible in patent filings, as from 1986 to 2016, the number of patents filed in OECD countries tripled, with IT-related technologies accounting for the majority of the increase.²⁸⁸ Advances in semiconductor technology have paved the way for the information revolution, which has resulted in astronomical profits for the ICT industry. Increased investments and consumer demands have led to increased competition, taking the form of patent races and resulting in bigger and faster innovation. The rate of technological advancements and creative destruction has been very high.

There has been an unprecedented rate of induction of new technologies and the creation of new standards (e.g., USB, WIFI, 2G-6G, etc.). The time intervals for the revision of standards have also decreased. Furthermore, with the increasing sophistication of the technologies used, it has gotten harder and harder for SSOs to create standards without using privately owned patents. Creating a practical and up-to-date technological standard without impacting on other's patent rights has become difficult.²⁸⁹ This is the primary reason the SEP jurisprudence is attracting more academic and industry interest now than at any other time in the history of patents and standards.

Various concerns surround SEPs, such as, when a standard is protected by patents, it might result in the rise in costs of implementing that standard. However, SSOs ensure that a patent is only incorporated in a standard when it determines that the enhanced performance or cost reductions in other inputs outweigh the expected royalty costs.²⁹⁰ Similarly, the SSOs and other stakeholders have devised various mechanisms to mitigate the competition and market risks that arise from including a patent in a

²⁸⁷ Farrar & Stark, *supra* note 243, at 1321.

²⁸⁸ Patents by technology, OECD.STATS, https://stats.oecd.org/Index.aspx?DataSetCode=PATS_IPC# (last visited Aug. 20, 2024).

²⁸⁹ Keeler, *supra* note 279, at 319

²⁹⁰ Michael A. Lindsay, *Antitrust and Intellectual Property in a Neo-Populist Age*, 32 ANTITRUST 7, 8 (2018).

standard. Particularly, there is concern that it should not harbour monopoly by firms with the power to license such patents.

To minimise the influence of such concerns, both SSOs and the state have experimented with various instruments available in contract, antitrust, and patent laws. SSOs have committed to adopting special policies on intellectual property rights to allow SEP owners to receive reasonable royalties in exchange for licensing their patents. While also restricting them from collecting excessive royalties after the rest of the industry has agreed to the standard. In pursuance of this purpose, SSOs require SEP owners to enter into a contract with the SSO before accepting their patent in any standard. Under such a contract, they agree to license their SEPs to the third-party implementers on ‘*Fair, Reasonable and Non-discriminatory*’ (‘FRAND’) terms.²⁹¹

FRAND

Most international and regional SSOs, to mitigate widely identified concerns with standards, have implemented IPR rules requiring IPR holders to disclose all patents essential to a standard. Under this, they must also commit to ‘fair, reasonable and non-discriminatory’ FRAND (or RAND) terms for licensing their SEPs.²⁹² Here, ‘*fair and reasonable*’ alludes to the amount that implementers must pay to license the SEP, which is usually paid in the form of a royalty.²⁹³ The phrase ‘*non-discriminatory*’ refers to a SEP owner’s commitment to licence the patent included in the standard to all implementers and potential implementers at rates and conditions equivalent to those given to other implementers.²⁹⁴

SSOs obtain a commitment from essential patent owners that they would moderate the royalty claims and operate in a reasonable and non-discriminatory way. They do so by requiring firms to give FRAND pledges before the other industry participants are locked in on a standard.

Most discussions among SEP owners and implementers happen after the implementers have already infringed on the technology protected by the SEPs. FRAND regulations thus become extremely valuable because the implementor has already invested in the technology and has incurred sunk costs (capital spent in researching and designing that technology), putting them on the weaker side of the bargaining table.²⁹⁵ FRAND provides the SSO participants, manufacturers, and other related firms operating in the area a sense of security that the rights owners will not impose unfair and unreasonable conditions or

²⁹¹ A. Douglas Melamed & Carl Shapiro, *How Antitrust Law Can Make FRAND Commitments More Effective*, 127 YALE L. J. 2110, 2113 (2018). [hereinafter Melamed & Shapiro].

²⁹² Chappatte, *supra* note 271, at 326.

²⁹³ Erik Hovenkamp, *Tying, Exclusivity, and Standard-Essential Patents*, 19 COLUM. SCI. & TECH. L. REV. 31-35 (2017). [hereinafter Erik Hovenkamp]

²⁹⁴ *Id.*

²⁹⁵ Melamed & Shapiro, *supra* note 291, at 2113.

discriminate against them after establishing a standard. It also gives them legal options if they face a SEP holder trying to leverage extra payments in return for a license.

The FRAND commitments are interpreted largely in line with the jurisdiction's laws where the SSO is registered. Thereby, the scope of the rights of third parties is justified through different legal logic depending upon the legal framework of that jurisdiction.²⁹⁶ For instance, courts in the US have recognised implementors as third-party beneficiaries, giving them access to the license at fair conditions and pricing.²⁹⁷

FRAND encumbered patents are treated differently than traditional patents, as in most cases, an essential patent owner *willingly* provides or permits the inclusion of its invention in a standard. It does so with the understanding that if the technology is included in the standard, the patent owner will license it on the SSO's terms to anyone willing to pay the fair price.²⁹⁸ In contrast, a normal patent owner has the authority to reject any buyer a license. This puts a FRAND encumbered patent in a special position. When a patent becomes standard, the owner of the patent relinquishes part of its patent autonomy in exchange for better market access for licensing that patent. In essence, a FRAND promise is an agreement not to exploit the entire scope of an owner's rights in return for the adoption of its technology as an accepted standard that provides the owner with additional licensing prospects.²⁹⁹

The following section presents a comparative assessment of the approaches of antitrust bodies, courts, and other relevant stakeholders towards assessing the patent hold-up problem by SEP holders. It gauges the extent of the role of antitrust, competition, or anti-monopoly laws in addressing it. It includes the seven largest global economies selected based on their Gross Domestic Product (“GDP”), as calculated by the International Monetary Fund (“IMF”) for the year 2023,³⁰⁰ namely: “*The United States of America*” (“US”); “*European Union*” (“EU”); “*The Peoples Republic of China*” (“PRC”); *Japan*; *Germany*; *India*; *United Kingdom* (“UK”); [in a shuffled order] and with an added mention of the *Republic of Korea* (“ROK”) because of its significant relevance in the SEP ecosystem.

United States of America (“US”)

In the U.S the ‘Department of Justice (DOJ)’ and the ‘Federal Trade Commission’ (‘FTC’) have taken inconsistent approaches on SEPs over time. These approaches have majorly reflected the greater agendas of the respective leadership in power. During the Obama administration, the F.T.C. and the

²⁹⁶ Schevciw, *supra* note 266, at 380.

²⁹⁷ *In re Innovatio*, *supra* note 286, at 933.

²⁹⁸ Chappatte, *supra* note 271, at 327.

²⁹⁹ Mark A. Lemley & Carl Shapiro, *A Simple Approach to Setting Reasonable Royalties for Standard-Essential Patents*, 28 BERKELEY TECH. L.J. 1135, 1140 (2013). [hereinafter Lemley & Shapiro]

³⁰⁰ IMF DATA-MAPPER, GDP CURRENT PRICES

<https://www.imf.org/external/datamapper/NGDPD@WEO/OEMDC/ADVEC/WEOWORLD> (last visited Aug. 20, 2024).

DOJ were largely in agreement that antitrust can and must be used to resolve issues related to patent hold-up in standard-setting situations.³⁰¹ However, this changed in 2018 when *Makan Delrahim*, Assistant Attorney General of the Antitrust Division at the DOJ, announced a pro-IP ‘The new Madison approach’ during the Republican administration under Trump's tenure. Under the licensing of SEPs, he called for strong IP rights to support both SEP holders and implementers, reducing the scope for antitrust to oversee SEPs.³⁰² A shift is underway once again, with the Biden administration seen as receptive to antitrust complaints, intending to make SEPs further accessible.³⁰³

The aversion of Courts towards Antitrust involvement

The US courts and the antitrust watchdog FTC have had differences over the jurisdiction of FTC over SEP contracts covered by FRAND. In 2007, to make a case against a hold-up activity, FTC had taken cognisance of FRAND violations by invoking the Sherman³⁰⁴ and FTC³⁰⁵ Acts. In its order of *Rambus, Inc.*³⁰⁶ the FTC had concluded that deceit to standard-setting bodies is a contravention of sec. 2 of the ‘Sherman Act,’³⁰⁷ a provision that broadly disallows any unwarranted monopoly. However, the D.C. Circuit Court of Appeals (‘DC Circuit Court’) overturned Rambus's ruling as it believed that the FTC had failed to show any harm to competition.³⁰⁸ The DC Court had asserted that “*deceptive conduct any other kind must have an anticompetitive effect to form the basis of a monopolization claim.*”³⁰⁹

However, interestingly just a year back in 2007, the ‘Third Circuit Court’ in the case of *Broadcom vs Qualcomm*³¹⁰ had found Qualcomm guilty of breaching sec. 2 of the ‘Sherman Act’. The Court held so for Qualcomm's deliberate misleading commitment that it shall license its ‘Wideband Code Division Multiple Access’ (‘WCDMA’) technology on a FRAND basis. Relying on this commitment, the SSOs

³⁰¹Koren W. Wong-Ervin, *The Proper Role of Antitrust in Addressing Patent Hold-Up*, 11 ANTITRUST L. ABA 11, (2014).

³⁰² Makan Delrahim, Assistant Attorney Gen., Antitrust Div. Of U.S. Dept Of Justice, The "New Madison" Approach To Antitrust And Intellectual Property Law, Address Before The University Of Pennsylvania Law School <https://www.justice.gov/opa/speech/assistant-attorney-general-makan-delrahim-delivers-keynote-address-university> (last visited Aug. 20, 2024).

³⁰³Matthew Bultman, *Biden Signals Shift Toward Tech on Standard Essential Patents*, BLOOMBERG LAW <https://news.bloomberglaw.com/ip-law/biden-signals-shift-toward-tech-on-standard-essential-patents> (last visited Aug. 20, 2024).

³⁰⁴ Sherman Antitrust Act, 15 U.S.C. §§ 1-38 (1890).

³⁰⁵ U.S. Code Title ,15. Commerce and Trade, Ch. 2. Federal Trade Commission; promotion of export trade and prevention of unfair methods of competition subchapter i. Federal trade commission, 15 U.S.C. §§ 41-58 (1914)

³⁰⁶ *In re Rambus, Inc.*, F.T.C 2007 WL 431522, at 68 (2007).

³⁰⁷ “Every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations, shall be deemed guilty of a felony, and, on conviction thereof, shall be punished by fine not exceeding \$100,000,000 if a corporation, or, if any other person, \$1,000,000, or by imprisonment not exceeding 10 years, or by both said punishments, in the discretion of the court.” Sherman, *supra* note 162, at § 2.

³⁰⁸ *Rambus, Inc. v. F.T.C.*, D.C. Cir 522 F.3d 456 (2008).

³⁰⁹ *Id.*

³¹⁰ *Broadcom vs Qualcomm*, 501 F.3d 297, 323 (2007).

included WCDMA in the ‘Universal Mobile Telecommunications System’ (UMTS standard’). Later, Qualcomm retracted the commitment and refused to commit to the FRAND terms.³¹¹ Hence, for its ‘market dominance, ability to extract supra-competitive prices, and presence of an entry barrier,’³¹² the Third Circuit Court concluded that Qualcomm had monopolistic power, therefore, ruling in favor of the SSO and the implementor.

Additionally, In 2013, In its order of *In re Motorola Mobility LLC and Google Inc*³¹³, the FTC observed that an opportune FRAND violation upon the ratification of a standard is cognisable under Sec. 5 of the FTC Act, which has a broader purview than Sherman Act and empowers to take action against ‘unfair or deceptive acts or practices in or affecting commerce’.³¹⁴ In the instant case, Google was fined by the FTC for threatening injunctions against voluntary licensees to force them to accept supra-license terms. The law regarding the scope of antitrust's role in the context of SEPs is still in flux despite more than a decade-long of engagements. In 2020, FTC, in response to the appeal of *FTC v. Qualcomm*, argued that Qualcomm's denial to license its owned SEPs to its chip-making rivals is an antitrust violation. In the original suit, the District Court had decided in favour of the arguments of FTC, but at the appeal, the ‘Ninth Circuit Court of Appeals’ disagreed. It stated that such a violation could be viewed as a breach of contract. Still, the FTC has not demonstrated conclusively that Qualcomm's alleged breach of its obligations to license its SEPs on FRAND terms also constitutes an antitrust violation.³¹⁵ *Prof. Hovenkamp* criticised the Ninth Circuit bench's decision to reverse the District Court's decision for ‘not indicate[ing] any awareness’³¹⁶ of the possibility for antitrust to identify the competition concerns of Qualcomm's ‘no license, no chips’ policy.

On Injunctions

Despite showing restraint on granting jurisdiction to FTC, the US courts have been quick to acknowledge that the grant of injunctions on request of SEP holders may conflict with the FRAND requirements to which they have previously consented. Such understanding emanated from the landmark case of *eBay Inc. v. MercExchange, L.L.C.*³¹⁷ which was related to the grant of injunction in cases of IP violations. The Apex court had placed constraints on the automatic issuance of injunctions against patent infringements. It was a significant departure from the previous position in the U.S, where,

³¹¹ *Id.* at 305.

³¹² *Id.* at 315.

³¹³ Matter of Motorola Mobility LLC, and Google, Inc., 156 F.T.C. 147 2013 WL 12180882, *8-9 (2013).

³¹⁴ *Id.*

³¹⁵ *FTC v. Qualcomm Inc.*, 9th Cir. 969 F.3d 974 (2020).

³¹⁶ Herbert Hovenkamp, *FRAND and Antitrust*, 105 CORNELL L. REV. 1683, 1692 (2020). [hereinafter Hovenkamp II]

³¹⁷ *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. (2006).

based on the broad assumption of irreparable harm, grant of a permanent injunctive relief was almost certain upon a court's finding of infringement. It laid down a four-factor test in which:

*‘a plaintiff must demonstrate: (1) that it has suffered an irreparable injury; (2) that remedies available at law, such as monetary damages, are inadequate to compensate for that injury; (3) that considering the balance of hardships between the plaintiff and defendant, a remedy in equity is warranted; and (4) that the public interest would not be disserved by a permanent injunction’*³¹⁸

By this shift from grant of injunction as a rule of thumb to discretionary power, courts gained the ability to check hold-up tendencies if a SEP owner demonstrated them while remaining well within the ambit of patent law. In *Apple vs Motorola*, the Federal Circuit Court extended the credence of the *eBay test* to SEPs. It concluded that irreversible damage cannot be perceived when an implementor is willing to sign a FRAND contract in good faith. It thereby excludes the possibility of the grant of injunctive relief against someone who is a ‘willing licensee.’³¹⁹ The court however in an effect to strike a balance rejected the idea that a FRAND-bound SEP owner loses their right to seek injunctive relief simply because they agreed to FRAND commitments.³²⁰ Leaving a window open for the SEP holder to request injunctive relief from the court against an implementer who acts in bad faith.

The United States has taken a constructive approach to injunctions. It has recognised the adverse relationship of injunctions with the FRAND commitments of SEP holders. Additionally, it has incorporated deterrence against hold-up tendencies by reducing the possibility of patent law being used to engage in patent hold-up. However, the recent Ninth Circuit Court’s decision has upped the ante for antitrust to step in, and experts claim it has made it difficult for it to intervene even when competitive harm is apparent.³²¹ The intersection of SEP and antitrust is dynamic in the United States. After the recent adverse antitrust judgments, policymakers need to step in to clarify the applicability of antitrust in the SEP framework explicitly.

European Union (“EU”)

Compared to the United States, which is more pro-IP but opposed to antitrust, as discussed, the European Union has taken a more moderate stance. Apart from the national competition watchdogs of its constituent nations, competition laws can be enforced by the ‘European Court of Justice’ (‘CJEU’) and the ‘European Commission’ (‘EC’) under art. 101³²² and art. 102³²³ of the “Treaty on the

³¹⁸ *Id.* at 388-390.

³¹⁹ *Apple, Inc. v. Motorola, Inc.*, 757 F.3d 1286, (Fed. Cir. 2014).

³²⁰ *Id.*

³²¹ *Hovenkamp II*, supra note 82, at 1692.

³²² Treaty on the Functioning of the European Union, Art 101, 25 March 1957, EU.

³²³ *Id.* at § 102.

Functioning of the European Union” (‘T.F.E.U.’). These articles prohibit the formation of cartels, disrupting free competition, and abusing market dominance. National courts have a better opportunity to decide on FRAND-related issues because patent laws and antitrust are products of national law. Recognizing this, the CJEU has mostly played its part by responding to the larger FRAND policy-based questions raised by the national courts.

Huawei v. ZTE

One such instance is the landmark case *Huawei v. ZTE*³²⁴, where the Dusseldorf District Court in Germany asked the CJEU to resolve an issue involving SEPs. It had questioned whether a SEP holder would be abusing its dominant position by filing a lawsuit for an injunction against a violator who had already expressed a desire to negotiate an offer sent by the SEP holder. The CJEU decided that pursuing an injunction doesn't necessarily imply that a SEP owner is abusing its market position under art. 102 of the TFEU.³²⁵ However, CJEU also noted that there are legitimate expectations on the part of the implementors that the SEP owner will give licenses on FRAND conditions. Therefore, an outright refusal to license by an SEP holder might be considered abuse under Article 102 of TFEU.³²⁶ In this decision, the CJEU established a ‘*negotiation protocol*’ that applies to the SEP holder and the implementer equally, laying the groundwork for courts to check whether an art. 102 breach exists. To avoid competition scrutiny, the protocol stipulates that 1) the SEP holder must submit a notice detailing the infringement to the implementor and consequently send out customised FRAND proposals; & 2) Implementers must respond promptly and send counter offers that are consistent with the industry practice.³²⁷

This protocol serves as a benchmark for the courts in EU member states to assess the possibility of a SEP holder engaging in a hold-up and the merits of its injunction request. The ‘*Huawei v. ZTE*’ case effectively ended the possibility of a grant of automatic injunctions in EU member states in the cases involving FRAND-encumbered SEPs, much like the *eBay*³²⁸ decision did in the US. The European Commission published a communication on the European Union’s Approach towards SEPs in November 2017. It went into greater detail about SEP holders’ and implementers obligations as a result of the *Huawei* decision. It stated that the notice sent by the SEP holder upon infringement of the Patent

³²⁴ Huawei Techs., Co. v. ZTE Corp., Case C-170/13 2015 E.C.R. 4 at 7 (ECJ).

³²⁵ *Id.* at 71.

³²⁶ *Id.* at 54.

³²⁷ *Id.* at 77.

³²⁸ *Ebay*, *supra* note 320, at 175.

should be ‘*sufficiently detailed*’ and have all the important details regarding the infringement.³²⁹ The counteroffer in response by the implementer should be ‘*concrete and specific*.’³³⁰

Further in 2018, the European Commission appointed a ‘*Group of Experts on licensing and valuation of SEPs*’ which submitted its report in 2021. The report was criticised for failing to reach a consensus on several issues where the EC had requested guidance.³³¹ The report's major recommendation was that the royalties should be levied on component level manufacturers rather than final product manufacturers so that suppliers would not have to absorb the costs from their profit margins.³³² In April, 2023 a proposal has been tabled for discussion at the European parliament for greater regulation of SEPs including measures like establishing a central registry at the EUIPO (EU Intellectual Property Office) to store information on SEPs, including ownership, licensing terms, and essentiality.³³³ Similar to the reaction to the report, this proposal has also received opposition due to its advocacy for increasing bureaucratic interventions in the process.³³⁴ The report does not represent the opinions of the EC and the proposal is still under discussion. Still, the backlash against it does provide some glimpse into the difficulties that the EU will encounter when trying to reach an understanding with various stakeholders regarding their SEP policies.

United Kingdom (“UK”)

The contribution of the U.K in extending the jurisprudence given by the EU on SEPs has been noteworthy. The *CJEU*'s judgment in *Huawei v. ZTE* maintained FRAND-compliant actions beyond Article 102's reach but also left open the question of when FRAND violations might directly result in Article 102 violations.³³⁵ The ‘*UK High Court of Justice*’ in the case of *Unwired vs. Huawei*³³⁶ went into detail on these issues. The English High Court determined that the FRAND and competition law parameters differ. Even if the rate is greater than the FRAND rate, it may still not violate competition law.³³⁷ The court also meant that the SEP owners can agree to different FRAND licensing fees with

³²⁹ The European Commission, Communication From The Commission To The European Parliament, The Council And The European Economic And Social Committee: Setting Out The Eu Approach To Standard Essential Patents 9 (2017).

³³⁰ *Id.* at 10.

³³¹ Rory O'Neill, *EU expert group criticised over SEP proposals*, WORLDIPPREVIEW <https://www.worldippreview.com/news/eu-expert-group-criticised-over-sep-proposals-21037> (last visited Aug. 20, 2024).

³³² E03600, *supra* note 32, at 12.

³³³ Briefing, EU Legislation in Progress, *Standard essential patents regulation*, EPRS, pg. 4 [https://www.europarl.europa.eu/RegData/etudes/BRIE/2023/754578/EPRS_BRI\(2023\)754578_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2023/754578/EPRS_BRI(2023)754578_EN.pdf) (last visited Aug. 20, 2024).

³³⁴ Gene Quinn, *Europe's Schizophrenia on Standard Essential Patents*, IPWATCHDOG <https://ipwatchdog.com/2023/04/23/europes-schizophrenia-standard-essential-patents/id=159856/> (last visited Aug. 20, 2024).

³³⁵ LEWSI & BAILEY, *supra* note 25, at 823-825.

³³⁶ *Unwired v. Huawei*, (2017) 711 EWHC (Pat) (U.K.).

³³⁷ *Id.* at 153.

different licenses as long as they're all within a FRAND range. The Court determined that the non-discrimination aspect of FRAND is not a sharply defined element that must be understood to support an implementer requesting a lower-than-FRAND rate just because an equally qualified licensee has received a lower rate, not until and unless that lower rate is provided for intentionally distorting competition among different implementors.³³⁸

The High Court's most notable observation was that when a court sets a FRAND rate, only license terms and royalty rates will be considered as FRAND. It hence eliminates the subjective nature of FRAND rates, once a court sets it.³³⁹ The court recognised three ways of setting the rates. The first way is to establish a benchmark rate based on the worth of the patentee's portfolio. The second way is by, judging from *comparable licenses (bottom-up)*, and the third, is by taking a *top-down approach*.³⁴⁰

In an appeal against the above-discussed decision, the Supreme Court recognised the jurisdiction of courts of the U.K. over determining the terms of a worldwide license for standard-essential patents, including royalty rates.³⁴¹ In this decision, where the top court dismissed three clubbed appeals, it upheld the observations of the High Court.³⁴² Furthermore, it observed that because the SSO's rules supported the idea that a FRAND license would cover the whole worldwide portfolio, including the UK and non-UK patents, the Court had the jurisdiction to rule on the worldwide FRAND terms. It thus rejected Huawei's contention that courts in the People's Republic of China ('PRC') were a better forum for deciding the terms³⁴³. The Court agreed with the observation of the High court that a country-wise license was not in the FRAND spirit and only an '*only a global license or at least a multi-territorial license would be FRAND*'³⁴⁴

The English approach has successfully delineated FRAND and the competition laws. If the SEP owner and an implementer are unable to reach an agreement on FRAND license conditions, the English courts have indicated that they are prepared to step in to help. With a clear position on the roles of competition law and FRAND, they may be able to shape a long-lasting framework for future SEP disputes.

Peoples's Republic of China ("PRC")

In comparison to the jurisdictions discussed above, the PRC has been quite liberal in its application of anti-monopoly laws (AML') and grant of injunctions against SEP owners. Since it is the largest market and producer of ICT products in the world, the PRC has been a scene of SEP-related court cases and has

³³⁸ *Id.* at 806-807.

³³⁹ *Id.* at 164.

³⁴⁰ *Id.* at 480, 597, 772, and 806.

³⁴¹ *Unwired Planet International Ltd & Anor v Huawei Technologies (UK) Co Ltd & Anor* [2020] UKSC 37. (UK)

³⁴² *Id.* at 170-171.

³⁴³ *Id.* at 84-90.

³⁴⁴ *Id.* at 168.

tended to support licenses in most cases.³⁴⁵ The *Anti-Monopoly Law* ('AML') enacted by it in 2008 prohibits vertical and horizontal monopoly agreements, collusion, and abuse of market dominance broadly. It gives powers to the *Ministry of Commerce* (MOFCOM'), the '*National Development and Reform Commission*' ('NDRC'), and the '*State Administration for Industry and Commerce*' ('SAIC') to take cognizance of such violations.³⁴⁶

The first noteworthy case of SEP disputes in PRC was *Huawei v. Intradigital*³⁴⁷. In 2011 and 2012, IDC filed suit against Huawei, among other companies, for patent infringement on SEPs in the US. As a retaliatory measure, Huawei filed a suit under AML alleging a hold-up in the *Shenzhen Intermediate People's Court* in PRC. By unpacking the Interdigital–Apple license, The FRAND rate was judged to be 0.019 per cent of the final price of the device by the Shenzhen Court. Furthermore, it found InterDigital to have violated FRAND by offering out-of-FRAND proposals to Huawei, seeking free cross-licensing from Huawei of some of its patents, and bundling non-SEPs with SEPs in the licensing of the portfolio.³⁴⁸ The court found that IDC had violated the AML by pursuing injunctive relief against Huawei in the United States when the parties were still negotiating the license conditions and awarded Huawei 20 million renminbi in damages.³⁴⁹ Based on this ruling, SEP holders and licensees had been bringing simultaneous anti-monopoly and FRAND complaints before PRC's courts, anticipating AML violations to flow from the breaches of FRAND commitments.³⁵⁰

However, Courts in PRC have not been consistent in their approaches. In another case of *Samsung vs. Huawei* when this time Huawei was the SEP owner seeking an injunction and Samsung, a South Korean company alleging holdup, the Shenzhen court refused to use the same methods to evaluate royalty. It rejected Samsung's request to let them pay the same percentage of royalty that the court had set for Huawei in *Huawei vs. IntraDigital*.³⁵¹ The court also granted Samsung an injunction against using those SEPs while asking them to continue negotiating with Huawei.³⁵²

Also, after *Huawei v. Samsung*, the '*Guangdong Higher People's Court*' a court higher up than Shenzhen's court, published the '*Guangdong Court Guidelines for Judicial Review of Cases Concerning*

³⁴⁵ Claire Guo, *Intersection of Antitrust Laws with Evolving Frand Terms in Standard Essential Patent Disputes*, 18 J. Marshall REV. INTELL. PROP. L. [i] 260, 269 (2019).

³⁴⁶ Jie Gao, *Development of the FRAND Jurisprudence in China*, 21 COLUM. Sci. & TECH. L. REV. 446, 453 (2020).

³⁴⁷ CPI, *Huawei v. InterDigital: China at the Crossroads of Antitrust and Intellectual Property, Competition and Innovation*, COMPETITION POLICY INTERNATIONAL <https://www.competitionpolicyinternational.com/huawei-v-interdigital-china-at-the-crossroads-of-antitrust-and-intellectual-property-competition-and-innovation/> (last visited Aug. 20, 2024).

³⁴⁸ *Id.*

³⁴⁹ *Id.*

³⁵⁰ Guo, *supra* note 109, at 271.

³⁵¹ Adrian Emch, *Huawei v. Samsung – A new benchmark for standard essential patent litigation in China?*, KLUWER COMPETITION LAW BLOG <http://competitionlawblog.kluwercompetitionlaw.com/2018/06/14/huawei-v-samsung-new-benchmark-standard-essential-patent-litigation-china/> (last visited Aug. 20, 2024).

³⁵² *Id.*

Disputes on Standard Essential Patents’ (Guangdong Court Guidelines’) in 2018. It separated the FRAND and AML enforcements, inferring that FRAND infractions will not always lead to AML violations.³⁵³

With Chinese companies controlling a large percentage of total SEPs in emerging technologies, for instance: ZTE and Huawei cumulatively controlling more than 20% of SEPs in the 5G standard³⁵⁴; It might be expected the PRC courts change from being pro-licensee towards a more neutral stance akin to the E.U.

Since 2013, the ‘Competition Commission of India’ (‘CCI’) and the ‘Delhi High Court’ have been the intersection points of several SEP disputes. The CCI is India's competition monitor, drawing its powers from the Competition Act, 2002. It is tasked with ensuring the prohibition of anti-competitive agreements under sec. 3 of the Act³⁵⁵ and preventing abuse of dominance under sec 4.³⁵⁶ The majority of SEP-related disputes in India, an emerging economy and a major ICT market, involve a slew of telecommunication start-ups that have sprung up in the last decade, alleging abuse of dominance against SEP holders in ICT-related standards.

In 2013 the CCI has taken cognisance of issues brought before it by *Micromax*³⁵⁷ and *Intex*³⁵⁸ (India-based ICT start-ups involved in manufacturing low and mid-range smartphones)³⁵⁹ alleging abuse of dominance by *Ericsson*, a major SEP holder in 3G and 4G standards. In the case of *Micromax vs. Ericsson*, Micromax accused Ericsson of abusing its monopolistic position by demanding excessive royalties for using its SEPs required to implement 2G and 3G wireless telecommunication standards for which no alternative technologies exist.³⁶⁰ Micromax also asserted that using the retail price of a downstream product as the base for royalty is a misuse of SEPs that would harm consumers, as they will have to shell out more money for the end product.³⁶¹ CCI found merits in the issues raised and ordered a further inquiry by the ‘Director-General’ (‘DG’). The CCI observed that Ericsson enjoyed a dominant position in the relevant market, and the royalties proposed by it had no relationship with the end product

³⁵³King & Wood Mallesons, ‘Guangdong High People’s Court Issued a Guideline for Trial of SEP Disputes’, *CHINA LAW INSIGHT* <https://www.chinalawinsight.com/2018/05/articles/intellectual-property/guangdong-high-peoples-court-issued-a-guideline-for-trial-of-sep-disputes/> (last visited Aug. 20, 2024).

³⁵⁴ Katharina Buchholz, ‘Who Is Leading the 5G Patent Race?’, *STATISTA* <https://www.statista.com/chart/20095/companies-with-most-5g-patent-families-and-patent-families-applications/> (last visited Aug. 20, 2024).

³⁵⁵ The Competition Act, 2002; § 3, No. 12 Act of Parliament of India, 2003 (India).

³⁵⁶ *Id.* at § 4.

³⁵⁷ *In re Micromax informatics ltd v Telefonaktiebolaget Im Ericsson*, case no.50 of 2013, CCI (India) [hereinafter *Micromax v. Ericsson*].

³⁵⁸ *In re Intex techs. (India) ltd v Telefonaktiebolaget Im Ericsson*, (2014) case no. 76 of 2013, CCI 6 (India).

³⁵⁹ Writankar Mukherjee, ‘Domestic mobile phone makers’ revenues hit by Chinese companies’, *ET TELECOM.COM* <https://economictimes.indiatimes.com/tech/hardware/domestic-mobile-phone-makers-revenues-hit-by-chinese-companies/articleshow/68770237.cms?from=mdr> (last visited Aug. 20, 2024).

³⁶⁰ *Micromax v. Ericsson*, *supra* note 124, at 4.

³⁶¹ *Id.*

and thus were ‘discriminatory and in violation of FRAND conditions.’³⁶² Ericsson took the case to the Delhi High Court, seeking a stay on the Director General's investigation. It further challenged CCI's jurisdiction on passing an order and asked for an injunction with damages against Micromax for violating its SEPs.³⁶³ In an interim solution, the High Court ordered Micromax to pay the royalty based on the prices of the finished product, rejecting Micromax's request to pay on SSPPU. The court set a royalty rate using the comparable license approach and granted a stay on further investigation by CCI or the DG.³⁶⁴

In the cases of *Intex vs Ericsson*³⁶⁵ and *Xiaomi vs Ericsson*³⁶⁶, the Delhi High Court took a similar approach, adopting a pro-patent rights view similar to the approach taken by US Federal circuit courts in interpreting FRAND obligations of SEP owners. The Court also issued *injunctions* prohibiting them from importing or selling products using the concerned SEPs during the duration of the proceedings.

However, in 2016, the Delhi High Court approved CCI's jurisdiction to investigate FRAND violations upon abuse of dominance permitting the CCI and the DG to investigate such cases including the earlier ones.³⁶⁷ The approach of the Delhi High Court has been a cautious one and can be criticised for not favouring the licensees even when most of them were budding domestic start-ups and a major cog in the wheel of the ‘Make in India’³⁶⁸ vision of the Indian Government.

It can be argued that a lesser royalty under a more licensee-oriented construction of FRAND terms can help them be more competitive, especially when many rival companies are getting the benefits of their states' protectionist policies. However, in economics, such protectionist interventions are argued as myopic,³⁶⁹ providing a short-term benefit but potentially causing long-term harm. Implications of such policies can only be accessed in the long run.

However, in the meantime, the Delhi High Court has become a hotbed for SEP litigations, with its first post-trial decision coming in 2018 in the combined cases of “*Koninklijke Philips Electronics N.V. vs. Rajesh Bansal*³⁷⁰; and “*Philips vs. Bhagirathi Electronics*”³⁷¹. Herein it found that the defendants had

³⁶² *Id.* at 7.

³⁶³ Telefonaktiebolaget LM Ericsson v Mercury Elecs. & Another (2014), Int. App. No. 3825 of 2013, Int. App. 4694 of 2013 in CSO No. 442 of 2013, Delhi H.C. (India).

³⁶⁴ *Id.* at 1-4.

³⁶⁵ Telefonaktiebolaget LM Ericsson v Intex Techs. (2015) Limited, Int. App. 6735 of 2014 in CSO No. 1045 of 2014, Delhi H.C. 1, 8, (India).

³⁶⁶ Telefonaktiebolaget LM Ericsson v Xiaomi Technology and Others (2014), Int. App. 24580 of 2014 in CSO No. 3775 of 2014, Delhi H.C.1-2 (India).

³⁶⁷ Telefonaktiebolaget LM Ericsson vs Competition Commission Of India (2016), W.P.(C) 464/2014 on Delhi H.C. (India).

³⁶⁸ ABOUT, MAKE IN INDIA, GOVERNMENT OF INDIA <https://www.makeinindia.com/about> ((last visited Aug. 20, 2024).

³⁶⁹ Hovenkamp I, *supra* note 14, at 1979.

³⁷⁰ *Koninklijke Philips Electronics N.V. vs. Rajesh Bansal* (2018), CS (COMM.) 24/2016 Delhi H.C. (India).

³⁷¹ *Koninklijke Philips Electronics N.V vs. Bhagirathi Electronics* (2018) CS (COMM.) 436/2017 Delhi H.C. (India).

infringed on Philips SEPs and ordered them to pay damages, as well as one of the defendants was ordered to pay punitive damages also. In June 2021, the Delhi High Court also ordered the first-ever ‘anti-anti-suit injunction’³⁷² (anti-enforcement injunction) to Xiaomi in the case of *Xiaomi v. IntraDigital*³⁷³. The High Court held that when Indian jurisdiction is the sole venue competent to decide the claims, a foreign court (in this particular case the *Wuhan Intermediate People's Court, PRC*) cannot prevent a party from bringing its claim before an Indian court.

Recently in *Ericsson v. Lava*³⁷⁴ case, the Delhi High Court ruled in favor of Ericsson, awarding it INR 244 crores (USD 29 million) in damages.³⁷⁵ The court found that Lava had infringed upon eight of Ericsson’s Standard Essential Patents (SEPs) related to 2G, 3G, and EDGE technologies.³⁷⁶ Lava’s defenses, including claims of non-essentiality and patent exhaustion, were rejected due to insufficient evidence. Lava was deemed an unwilling licensee by the court, having failed to engage in good faith negotiations with Ericsson.³⁷⁷

The activeness of the Delhi High Court has laid a solid foundation for India to develop its policies on SEPs and FRAND commitments. However, it must ensure that the policies are potent enough to recognise patent hold-up if and where it exists so that their pro-patent stance does not come at the expense of the legitimate interests of the implementors. Easy grant of injunctions can come at the expense of subduing the FRAND commitments. When the other countries are showing restraint in the grant of injunctions, the Delhi HC can take a leaf from their book to not put the implementor at a disadvantage. Amidst the lack of a negotiation protocol (like the one laid by CJEU in *Huawei v. ZTE*), maintaining a window for CCI to begin investigations has been a positive step towards balancing of interests.

Germany

Germany is the epicentre of IPR based litigation in Europe, with a quick case resolution record, low costs of litigation, and the possibility of getting a reasonable injunction.³⁷⁸ It was also one of the first courts to decide SEP-related disputes thoroughly. In its landmark ruling on the *orange book standard*³⁷⁹ case in 2009, the Court invoked competition law to bar injunctive relief in certain cases where a claim to

³⁷²Anand, *Indian High Court rules in country's first anti-anti-suit-injunction*, LEXOLOGY Delhi High Court creates history with India's first Anti-Anti-Suit Injunction - Lexology (last visited Aug. 20, 2024).

³⁷³ *Xiomi v. IntraDigital* (2021), Int. App.8772/2020 in CS(COMM) 295/2020 Delhi H.C (India).

³⁷⁴ *Lava International Limited vs Telefonaktiebolaget Lm Ericsson*, CS(COMM) 65/2016 Delhi H.C (India).

³⁷⁵ *Id.* at XXXV

³⁷⁶ *Id.* at XXV

³⁷⁷ *Id.* at XXI.

³⁷⁸ Marius Ziph and oths. *The Judicial Geography of Patent Litigation in Germany: Implications for the Institutionalization of the European Unified Patent Court*, MDPI, <https://www.mdpi.com/2076-0760/12/5/311> (last visited Aug. 20, 2024).

³⁷⁹ *Orange Book Standard* (2009), Docket KZR 39/06 (Germany).

an injunction amounts to an abuse of the patent holder's dominant market position. In this case, a SEP was recognised by the German Federal Supreme Court ‘*Bundesgerichtshof*’ (‘BGH’) as a necessary method of gaining access to a specific marketplace.³⁸⁰ The court decided that a SEP owner cannot pursue an injunctive relief to prevent a rival from making products that infringe on its SEP. Unless such SEP owner first notifies an infringing party about the breach and then makes a precise formal proposal for a license on a FRAND basis, which must include details of the royalty which it expects.³⁸¹ Later in 2015, the Düsseldorf District Court referred the *Huawei vs. ZTE* case (discussed above) to the CJEU and the CJEU expanded the case law and toned down the importance of competition law in the process of granting injunctions.³⁸²

In the recent decision of *Sisvel v. Haier*³⁸³ with respect to important concerns of SEP litigation in Germany, the Federal Court of Justice provided some additional legal clarity. In terms of FRAND licensing negotiations, the BGH warned that the infringer's behavior should demonstrate sincerity and seriousness.³⁸⁴ Also, in agreement with the above-mentioned decision of *Unwired* by the High Court of Justice in the U.K., the Federal court ruled that the FRAND royalty rate does not have to be an exact number; instead, it can be a royalty range.³⁸⁵

Republic Of Korea (ROK)

The ROK is a world leader in the number of SEPs reported to the top three SSOs comprising of 23.5 percent of the total declared SEPs.³⁸⁶ The “Korea Fair Trade Commission”, (“KFTC”) updated its “Guidelines for Review of Unfair Exercise of Intellectual Property Rights (IPR Guidelines)”, in early 2016, allowing for the creation of *de facto* SEPs. According to the KFTC, the IPR guidelines definition of SEPs is limited to De-jure SEPs in which the owners were asked to consent to a wilful commitment to license the SEP in question based on the FRAND commitments in return for their patent being

³⁸⁰James Killick, *ECJ rips up Orange Book! New standards in Europe for SEP injunctions* <http://competitionlawblog.kluwercompetitionlaw.com/2015/09/04/ecj-rips-up-orange-book-new-standards-in-europe-for-sep-injunctions/> (last visited Aug. 20, 2024).

³⁸¹ *Id.*

³⁸² *Id.*

³⁸³ Staff, *Sisvel v Haier, Federal Court of Justice (Bundesgerichtshof)*, https://caselaw.4ipcouncil.com/german-court-decisions/federal-court-of-justice-bgh/sisvel-v-haier-federal-court-justice-bundesgerichtshof#_ftn40 (last visited Aug. 20, 2024).; *Sisvel v. Haier*, Docket. KZR 36/17 (Germany).

³⁸⁴ *Id.*

³⁸⁵ *Id.*

³⁸⁶ Lee Jihye and Yoon Hee Young, *Korea leads World in No. of Patents Reported to Top 3 Authorities* <https://www.korea.net/NewsFocus/Business/view?articleId=197943> ((last visited Aug. 20, 2024).

included in a standard, excluding other used technologies in that relevant area.³⁸⁷ The IPR Guidelines outline the grounds for assessing whether a refusal of a license is unlawful.

In terms of antitrust enforcement, the KFTC's record-breaking penalty of USD 854 million levied on Qualcomm in 2016 had summoned international attention.³⁸⁸ According to the KFTC, Qualcomm took advantage of its dominant position in the market by denying for licensing of SEPs and forcing unfair contracts such as grant-back requirements and superfluous package licensing, among other things. The fine imposed by the KFTC on Qualcomm is one of the highest ever levied against a SEP holder. It demonstrates the lengths to which antitrust authorities can go to safeguard the market from the abuse of dominant forces.

*Samsung v. Apple*³⁸⁹ was a well highly-publicized SEP-related case in Japan in 2011 that had sparked FRAND-related discussions. it.³⁹⁰ In 2011, Apple filed a patent infringement lawsuit against Samsung, alleging that the patents at issue were related to the iPhone's design.³⁹¹ The court decided that both the sides involved in the contract negotiations owe each other a duty of good faith to present each other with the relevant information and to bargain in good faith towards the conclusion of the license agreement.³⁹² Japan has regulated the relationship between SEP owners and Implementers fairly actively. 'The Japan Fair Trade Commission' ('JFTC'), in the year 2016, issued revised 'Guidelines for the Use of Intellectual Property under the Antimonopoly Act'. It defined the criteria to be used to determine whether a SEP owner had violated antitrust laws by requesting injunctions.³⁹³ The amendment's main focus was on the refusal of a license or filing of a claim for injunction by the SEP owner. It clarified such an act by a party may be considered an act of private monopolisation, and an injunction against an entity ready to take a license can be considered an unfair trade practice.³⁹⁴ Furthermore, if an owner of SEPs which has expressed its willingness to give SEPs on FRAND terms declines to license or seeks injunctive relief against a firm ('willing licensee') prepared to accept SEPs on FRAND terms can violation of the Anti-Monopoly laws as well.³⁹⁵

³⁸⁷ Jianmin Dai, *Competition and Antitrust Enforcement against Standard Essential Patent in Asia: Introduction and Overview*, 62 ANTITRUST BILLS. 443, 445 (2017).

³⁸⁸Se Young Lee, Stephen Nellis, *South Korea fines Qualcomm \$854 million for violating competition laws*, Reuters, <https://www.reuters.com/article/us-qualcomm-antitrust-idUSKBN14H062> . (last visited Aug. 20, 2024).

³⁸⁹ Hiroko Tabuchi and Nick Wingfield, *Tokyo Court Hands Win to Samsung Over Apple*, <https://www.nytimes.com/2012/09/01/technology/in-japan-a-setback-for-apples-patent-fight.html> (last visited Aug. 20, 2024).

³⁹⁰ Reuters Staff, *Samsung wins over Apple in Japan patent case*, REUTERS, <https://www.reuters.com/article/apple-samsung-japan/samsung-wins-over-apple-in-japan-patent-case-idUSL2E8JU0Y420120831> (last visited Aug. 20, 2024).

³⁹¹ Id.

³⁹²Jianmin Dai, *Competition and Antitrust Enforcement against Standard Essential Patent in Asia: Introduction and Overview*, 62 ANTITRUST BILLS. 443, 444 (2017).

³⁹³ Guidelines For The Use Of Intellectual Property Under The Antimonopoly Act, Japan Fair Trade Commission <https://www.jftc.go.jp/en/pressreleases/yearly-2016/january/160121.html> Last Visited Aug. 20, 2024).

³⁹⁴ Id.

³⁹⁵ Id.

In 2018 the “Japan Patent Office” (“JPO”) published the “Guide to Licensing Negotiations involving Standard Essential Patents”.³⁹⁶ This Guide was aimed at improving openness and predictability, simplifying talks between rights holders and implementers, and assisting in preventing or swiftly resolving SEP-related issues, an attempt toward a more balanced regime.³⁹⁷ Japan's approach has been proactive, and it is ready to deploy enforcement Anti-Monopoly laws to reduce the risk of standardisation of SEPs

Conclusion

All the aforementioned economies have acknowledged the issue of patent hold-up and have attempted to limit the use of automatic injunctions in cases of FRAND-encumbered SEPs. The United States and India have taken a pro-patent stance and antitrust action has been limited. The US has taken a cautious approach in granting injunctions, whereas India has granted injunctions liberally. The EU, Germany, and the United Kingdom have taken a neutral approach, establishing negotiation protocols that fairly distribute the burden of agreeing on a FRAND royalty rate between the SEP holder and the implementer. The UK has even attempted to define a clear antitrust enforcement scope, defining when FRAND is sufficient and when antitrust is required to advance a remedy. Japan, the Republic of Korea, and the People's Republic of China have shown a tilt toward the implementer, using anti-monopoly laws to limit SEP owners.

With the global convergence of royalty-setting approaches and courts taking the liberty to grant a worldwide license, precedents have been established that allow courts of different jurisdictions to learn from each other's assessments, resulting in a more predictable royalty rate. The system is moving towards greater consistency, and the European courts have led the way in showing how to strike a balance between the interests of the owner and the implementor. Courts of different jurisdictions have given different explanations. Still, instead of creating a problem, it has helped the courts to build upon each other's experiences thereby gradually moving towards a global convergence in the understanding of FRAND commitments and royalty determination. With more clarity on its reach and limits, a more dependable SEP licensing framework can be built with a lesser need for antitrust interventions.

Both a pro-patentee approach, which provides the SEP owner with automatic injunctive reliefs, and a pro-licensee approach, which eliminates the possibility of an injunction, encourage the respective parties to engage in aggressive conduct. It is acceptable to burden the SEP holder to clearly and unambiguously notify the implementer in detail of the SEP infringements and propose a FRAND offer. However, the

³⁹⁶ GUIDE TO LICENSING NEGOTIATIONS INVOLVING STANDARD ESSENTIAL PATENTS, JAPAN PATENT OFFICE) <https://www.jpo.go.jp/e/system/laws/rule/guideline/patent/seps-tebiki.html> (last visited Aug. 20, 2024).

³⁹⁷ *Id.*

SEP holder should retain the freedom to reject any counter offers until it can negotiate a desirable contract while remaining inside the FRAND limits. Following the breakdown of negotiations, both parties should agree to let a neutral forum decide the rate. A negotiation protocol that places equal duty on the firms to engage in good faith negotiations is the key to preventing both patent hold-up and hold-out.



DEVELOPING A ROBUST LAYOUT DESIGN OF INTEGRATED CIRCUITS LEGISLATION FOR NIGERIA: LESSONS FROM RWANDA

Prof. Kasim Musa Waziri³⁹⁸ & Matthew, Demilade Omolayo³⁹⁹

Abstract

One miracle of the 21st century is the invention of Integrated Circuits also called chips or semiconductors. It is a key component used in any electronic device or hardware and used to manufacture a wide range of products; from articles of everyday use such as mobile phones, televisions, cars automated cards, and automated machines to sophisticated computers, servers, space rockets, and so on. The importance of Integrated Circuits in daily life and business including the heavy expertise and financial investment involved made it a target of chip piracy, chip counterfeiting, and other forms of infringement thereby undermining the industry. Seeing the importance of Integrated circuits in everyday life and business, technologically advanced nations enacted sui generis Intellectual Property law specifically targeted to protect the Layout Design of Integrated Circuit. In Africa, a few countries like Rwanda have taken the positive step of enacting a specific law for the Protection of Integrated Circuits while Nigeria, the proverbial giant of Africa with a population of over 200 million has no specific Intellectual Property law for the protection of integrated circuit, and no semiconductor industry, just an end-user consumer. This article analyzes the Semiconductor Layout Design legislation of Rwanda which incorporates specific provisions that not only protect innovators and their inventions from infringers; encourage reverse engineering; and create offenses and penalties; but also, control the unfair competition connected with contractual licenses that may be prejudicial to trade and hamper the transfer and dissemination of technology. The paper concludes by recommending that Nigeria draws lessons from Rwanda for the development of its layout design legislation.

Keywords: *Layout Design of Integrated Circuit, Sui generis, Semiconductor industry, Nigeria, Rwanda.*

³⁹⁸ Faculty of Law, Department of Public Law, University of Abuja, Nigeria.

³⁹⁹ Ph.D., Faculty of Law, Department of Public Law, University of Abuja, Nigeria.

Introduction

We are in an era of unprecedented and rapid change in technology and innovation,⁴⁰⁰ and it is likely to become a significant factor in determining patterns of global development and prosperity in the 21st century.⁴⁰¹

Technological revolutions, from the Stone Age to the digital age, have always brought about economic growth and prosperity⁴⁰² and also determined world powers. However, throughout the various ages of technological advancement and innovation, the 21st century, more than any other time in history has experienced a quantum leap in technological advancement with the invention of Integrated Circuits (IC) in the 1950s.⁴⁰³

Since its invention, Integrated Circuits has made history and has had a far-reaching impact in revolutionizing the world. First, Integrated Circuits are used worldwide in many if not all fields and applications including biotechnology, communications, computers, banking, education, automobiles, defense computers, government, hospitals, medicine, nanotechnology, research, internet, travel, entertainment, and other daily life and business activities.⁴⁰⁴

Secondly, Integrated Circuits have also laid the foundation for a new technological age, characterized by technological breakthroughs such as Artificial Intelligence, Autonomous driving, the Internet of Things, Robotics, 3D printing, and others.⁴⁰⁵ Innovation through these technologies is particularly important because they offer us opportunities to recreate our economies to better serve societal needs.⁴⁰⁶

Thirdly, the Integrated Circuits industry over six decades, has emerged as the world's largest industry.⁴⁰⁷ This is due to increasing demand for high-quality electronic devices, such as laptops, desktops, and wireless communication equipment, the rise of cloud-based computing, and the rollout of 5G have necessitated the advancement of semiconductors that we are using today and the industry as a whole.⁴⁰⁸ It is projected that the industry will be worth a trillion dollars by the year 2030.⁴⁰⁹

⁴⁰⁰United Nations Conference on Trade and Development, *Technology and Innovation Report 2018: Harnessing Frontier Technologies for Sustainable Development* iii ((United Nations publication, Geneva, 2018) available at: https://unctad.org/en/PublicationsLibrary/tir2018_en.pdf (last visited on August 23 2024)

⁴⁰¹ *Ibid*

⁴⁰²Economic and Social Commission for Asia and the Pacific, *Frontier Technologies for Sustainable Development in Asia and the Pacific* iii (United Nations, Bangkok, 2018) available at: <https://www.unescap.org/sites/default/files/publications/Frontier%20tech%20for%20SDG.pdf> (last visited on August 23 2024)

⁴⁰³N.S. Arjun, *Invention of Integrated Circuits: Untold Important Facts* 29 (World Scientific Publishing Limited, Toh Tuck, 2009)

⁴⁰⁴ *Ibid*

⁴⁰⁵ *Supra* note 403 at iii

⁴⁰⁶ *Ibid*

⁴⁰⁷S. Y. Kiat, K. T. Ng, *et.al. Intellectual Property for Integrated Circuits* 11 (J. Ross Publishing, Florida, 2010)

⁴⁰⁸R. Ram, "Fourth Generation Semiconductor Technology to Power Modern Computing" *EC* (2023)

⁴⁰⁹S. Ficon, "Microchips and Economic Dips – Fallout from The US Ban on Exporting Advanced Microchips to China" *MJE* 12 (2023).

Another interesting aspect of the Integrated Circuits is that it defines geopolitics. Due to the reasons discussed above, many analysts, scholars, and industry watchers believe that Integrated circuits is the new oil- the scarce resource on which the modern world depends.⁴¹⁰ Just like oil in the 20th century, they are presently a central issue in global trade and diplomacy, with countries looking to control the supply and production of these vital components.⁴¹¹

Regardless of the above, the focal point of the thriving Integrated circuit industry is in the Layout Design of an integrated circuit. The layout design embodies the intellectual property of Integrated Circuits, so it is safe to say that the commercial success and maintained viability of the industry is founded on Intellectual property.

The Layout Design of an Integrated circuit is the core of an IC, and it is also the beginning of IC production. It defines the function and application scope of the IC.⁴¹² Depending on its complexity, the design process of an Integrated Circuit chip can be costly, arduous, and lengthy. It can take several months or even multiple years to inch toward its successful completion. In general, IC design requires numerous iterative steps before the final chip design gradually takes shape.⁴¹³

Using intellectual property to protect the Layout Design of an Integrated Circuit from piracy and counterfeiting has led created new integrated circuits that reduced the sizes of existing ones while simultaneously increasing their functions.⁴¹⁴This has ensured further creativity and innovation, reduced cost of production, and allowed investors to recoup their investments.

Since the invention of Integrated Circuits, industry players have used Intellectual Property Law to protect Integrated Circuits from infringements initially using traditional Intellectual property laws of Patent and Copyrights. But by 1984, the United States of America (USA) introduced a *sui generis* regime for the specific protection of Layout design as the traditional rights had become inadequate. Since then, other technologically advanced countries have followed suit. In Africa, this trend was been picked up by Rwanda in 2009. They adopted a *sui generis* regime to protect the layout design of Integrated circuits, first to develop its semiconductor industry and second, to domesticate the Agreement on Trade-Related Aspects of Intellectual Property (TRIPs Agreement).

This article will analyze the Rwandan integrated circuit law that came into force in 2009 with the sole aim of drawing lessons from it for the development of robust a layout design legislation for the protection of integrated circuit in Nigeria.

⁴¹⁰C Miller, *Chip War: The Fight for the World's Most Critical Technology* (Scribner, New York, 2022)

⁴¹¹ T Hussein, "The Geopolitics of the New Oil: Semiconductors" *The Geopolitics available at:* <https://thegeopolitics.com/the-geopolitics-of-the-new-oil-semiconductors/> (last visited August 23, 2024)

⁴¹²Y. Li, J. He, *et.al.*, "Frontier development of chips design and production"139 *Procedia Computer Science* 557 (2018) *available at:* <https://www.sciencedirect.com/science/article/pii/S187705091831901X?via%3Dihub> (last visited on August 23, 2024)

⁴¹³*Supra* note 407 at 58

⁴¹⁴World Intellectual Property Organization, "Patent Expert Issues: Layout Designs (Topographies) of Integrated Circuits" *available at:* https://www.wipo.int/Patents/en/topics/integrated_circuits.html (last visited on 14 January 2022)

History, Meaning, and Concept of Integrated Circuit

Integrated Circuit is a fundamental concept of electronics.⁴¹⁵ “An Integrated Circuit is a combination of interconnected circuit elements inseparably associated on or within a continuous substrate”.⁴¹⁶ Leon Radomsky,⁴¹⁷ defines an integrated circuit as “usually a single substrate that contains thousands or millions of interconnected semiconductor devices”.

Recognizing the importance of integrated circuits, various legislations across the world have also defined Integrated Circuits. The IPIC Washington Treaty, and by extension, the TRIPs Agreement defines an Integrated Circuit as “a product, in its final form or an intermediate form, in which the elements, at least one of which is an active element, and some or all of the interconnections are integrally formed in and/or on a piece of material and which is intended to perform an electronic function.”⁴¹⁸

The history of Integrated circuits can be traced to discoveries that showed that semiconductor devices especially transistors can perform the functions of vacuum tubes.⁴¹⁹

Werner Jacobi in 1949, invented and patented an integrated circuit like amplifying device consisting of five transistors on a common substrate arranged in a 2-stage amplifier arrangement.⁴²⁰ The effect of his creation was that, it showed that devices such as hearing aids can reduce in size, and in turn, cheaper to produce.⁴²¹

Three years later, Geoffrey Dummer in his lectures theorized the idea of integrated circuit, however was unable to successfully build one.⁴²² But by 1958, Jack Kilby, using different integrated components i.e. resistors, capacitors, distributed capacitors, and transistors was able to successfully build an oscillator Integrated Circuit.⁴²³ Although his integrated circuit was revolutionary, it was not without problems as it was made on a germanium substrate which caused overheating.⁴²⁴ By 1959, Robert Noyce, seeing the limitations of germanium made his chip from silicon.⁴²⁵ He had the idea to evaporate a thin metal layer

⁴¹⁵Jimblom, “Integrated Circuits” available at: <https://learn.sparkfun.com/tutorials/integrated-circuits/all> (last visited on 22 May 2022).

⁴¹⁶*Supra* note 409 at 36

⁴¹⁷L Radomsky, “Sixteen Years after the Passage of the U.S. Semiconductor Chip Protection Act: Is International Protection Working” 15 *BTLJ* 1090 (2000)

⁴¹⁸Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), art 35

⁴¹⁹All Answers ltd, “Examining the Evolution of Integrated Circuits Information Technology Essay” available at: <https://www.ukessays.com/essays/essays/information-technology/examining-the-evolution-of-integrated-circuits-information-technology-essay.php> (last visited on 24 May 2022)

⁴²⁰ *Id* at 17.

⁴²¹Any Silicon, “The History of the Integrated Circuit” available at <https://anysilicon.com/history-integrated-circuit> (last visited on 25 May 2022).

⁴²² *Ibid*

⁴²³MM University, “Integrated Circuit Fabrication Technology: History” 3(1999) available at: <http://www.mmumullana.org/downloads/files/n54744abb84200.pdf> (last visited on 28 May 2022).

⁴²⁴ *Ibid*

⁴²⁵ *Ibid*

over the circuit, then connect it down to the silicon dioxide. This process laid the foundation for more complex integrated circuits and it still being used today in the semiconductor industry.⁴²⁶

In 1963, Frank Wanlass originated and published the idea of Complementary Metal Oxide Semiconductor (CMOS). Most high-density ICs manufactured today depend on the CMOS.⁴²⁷

Since the 1960s till date, the progress of the IC industry has continued to soar at a tremendously fast pace with the cramming of more components on the integrated circuits.⁴²⁸ This tremendous progress has been attributed to the predictions of Gordon Moore. In 1965, he predicted “a doubling every year in the number of components per integrated circuit, and a growth rate that would continue for at least another decade.”⁴²⁹

In a paper for Electronics entitled “Cramming more components onto integrated Circuits.” He observed that “The complexity for minimum component cost has increased at a rate of roughly a factor of two per year”.⁴³⁰ By 1975, he revised the initial forecast, to “a doubling every two years, at a compound annual growth rate (CAGR) of 41%.”⁴³¹ Moore’s predictions have held true, and it has since become a “law.”⁴³² Moore's prediction is still used in the IC industry for planning and to set targets for research and development.⁴³³

Legal Regime for the Protection of Integrated Circuits in Rwanda

In 2009, Rwanda ratified and domesticated several international treaties which included the TRIPs Agreement.⁴³⁴ The essence of this, according to its 2009 Intellectual Property policy is for Rwanda to have a “functioning intellectual property system that allows people to realize the full value of their creations, and to allow them to access the creations of others.”⁴³⁵ Consequently, The Protection of Intellectual Property Law No. 31/2009 of 26/10/2009 was promulgated. The Law was developed alongside its IP Policy and it set out detailed requirements for the provision, enforcement, and administration of Intellectual Property Rights.⁴³⁶ The Law amongst other Intellectual Property rights made provisions for the protection of layout designs of Integrated Circuits under Chapter IV of the Law. The Layout Design legislation of Rwanda will be discussed under the following subheadings:

⁴²⁶*Id* at 4

⁴²⁷*Id* at 10.

⁴²⁸Depending on the wafer size, IC may number tens, hundreds, thousands, and ten thousand of IC. Each IC may have millions or even over a hundred million circuit elements. Memory ICs now in production have over a billion transistors and two billion capacitors on a single IC.

⁴²⁹*Supra* note 24 at 10

⁴³⁰*Ibid*

⁴³¹Wikipedia, “Moore’s law” available at: https://en.wikipedia.org/wiki/Moore%27s_law (last visited on 2 November 2022).

⁴³²*Ibid*

⁴³³*Ibid*

⁴³⁴G Iribagiza “Rwanda: Registrar General Richard Kayibanda on Intellectual Property Protection in Rwanda” *All Africa* Apr. 26, 2022 available at: <https://allafrica.com/stories/202204260076.html> (last visited on 13 February 2024)

⁴³⁵Ministry of Trade and Industry Rwanda, *Rwanda Intellectual Property policy* (Kigali, 2009)

⁴³⁶*Ibid*

Protection Requirements

For a layout design of Integrated Circuits to be eligible for protection under the Rwandan Protection of Intellectual Property Law (PIPL), it must meet certain criteria. By a combination of Article 108 and 109, the Law provides for the protection requirements as follows;

- i. It must be a layout design of integrated circuits
- ii. It must be original
- iii. Registration

Layout design: By Article 108, the subject matter of protection must be a layout design of Integrated circuits. The Law defines a layout design as “a three-dimensional arrangement –in whatever form– of the elements, at least one of which is active, and of all or part of the interconnections of an integrated circuit, or such a three-dimensional arrangement, prepared for an integrated circuit intended to be manufactured”.⁴³⁷ Therefore any layout design or arrangement not intended or prepared for the manufacturing of an integrated circuit⁴³⁸ will not be protected under the Law. The Court in *Alterra Corp v. Clear Logic, Inc*⁴³⁹ held that “the placement of transistors on the chip is not an abstract concept but embodied in the chip and affects the chip’s performance and efficiency.”

Originality: After establishing the subject matter of protection as the layout design, the Law went further by stating that the layout design, which “consists of a combination of elements and interconnections that are common, is protected only if the combination, taken as a whole, is **original**” (*emphasis mine*) within the meaning of paragraph 1 of the article.⁴⁴⁰ Therefore, what is considered an original layout design can only be construed within the definition provided under the Law. By the PIPL 2009, A layout design is considered to be original, “if it is the result of the intellectual effort of its creator and if, at the time it is created, it is not known among the creators of layout designs and the manufacturers of integrated circuits.”⁴⁴¹ This standard of "originality" is the essence of the *sui generis* protection system. Copyright and Patent require a very high standard of originality or inventiveness and

⁴³⁷ Protection of Intellectual Property Law (PIPL), art 2

⁴³⁸ PIPL art5(4) defines integrated circuits as product, in its final or an intermediate form, in which the elements, at least one of which is active, and all or part of the interconnections form an integral part of the body or surface of a component which is intended to carry out an electronic function;

⁴³⁹ 424 F.3d 109 (2005)

⁴⁴⁰PIPL, art 109(2)

⁴⁴¹PIPL, art 109(1)

using this standard, will mean layout design of integrated circuit will remain unprotected under traditional rights.⁴⁴²

Registration/ Formality: Enjoying the Layout Design Rights granted under the Law, requires that; the layout design must be registered.⁴⁴³ According to Article 186(6), industrial property title means ‘the registration certificate for a layout-design of integrated circuit’. Therefore, for a creator of layout designs to enjoy the Rights conferred under the Law, he or she must go through the formal process of applying and registering the layout design of integrated circuits provided under the Law.⁴⁴⁴

However, applying for registration comes with a condition. The Law provides that the application for registration of the layout design can only be filed, if the layout design has not been commercialized, or been the subject of such use for a period not more than two (2) years, anywhere in the world.⁴⁴⁵

Ownership of Layout Design

“Intellectual property is a non-physical property that is the product of original thought”,⁴⁴⁶ therefore, just like tangible properties, it can be owned, leased, sold, and gifted. Under Art 110, the rights protected by the layout design are owned or belong to the creator of the layout design.⁴⁴⁷ The Law further states that where two or more persons have created a layout design jointly, the right will jointly belong to them.⁴⁴⁸ However, Article 10(2) creates an exception to the layout design being owned by the creator. It provides that where the layout design has been created under contract, ownership belongs to the project manager or the employer except otherwise stated in the contract.

Application and Registration of Layout Design

To enjoy the protection afforded by a layout design by being granted the certificate of registration, there must first be an application submitted to the empowered Authority

After the application has been submitted, the law provides that “the Empowered Authority shall then examine whether the application satisfies the requirements contained in Article 111. If it observes any irregularities, it shall notify the applicant and invite him or her to correct them within thirty (30) days. If

⁴⁴²T. Hoeren, “Chip Protection in Europe” in C. Prin, A.P. Meijboom (eds.), *The Law of Information Technology in Europe: A Comparison with the USA 3* (Kluwer Law and Taxation Publishers, Deventer, 1992).

⁴⁴³ PIPL, art 87(1)

⁴⁴⁴ PIPL, arts 112- art 115, art 111(4)

⁴⁴⁵ PIPL art 108(2)

⁴⁴⁶ M. Adam, K. Himma, “Intellectual Property” available at: <https://plato.stanford.edu/entries/intellectual-property/> (last visited on 18 January 2024).

⁴⁴⁷ Inferring from PIPL art 109, a creator of a layout design is a person whom through intellectual effort created a layout design that is new or novel

⁴⁴⁸ PIPL, art 110

the irregularities are not corrected by a prescribed deadline, the application shall be deemed withdrawn.”⁴⁴⁹

However, where the application satisfies the requirements under Article 113 of the Law, the Empowered Authority is mandated to do the following:

- i. record the layout design in the register of layout designs, without examining the originality, the right of the applicant to protection, or the accuracy of the facts detailed in the application;
- ii. publish a reference to the registration of a layout design;
- iii. issue to the applicant a registration certificate for the layout design.”

From the above provisions of the Law, the recording of the layout design in the register of layout design and the issuance of the registration certificate of layout design does not guarantee the validity of the Rights granted under the Law as the layout design rights was granted without examining the originality, the right of the applicant to protection or the accuracy of the facts detailed in the application as required under the Law in Articles 19(4), 108 and 109.

To curb issues that might arise from the lack of guarantee of validity, the Law makes provision for the withdrawal of layout design from the register where it is discovered that the layout design is not original and has been imported, sold or distributed anywhere in the world before the application for registration was filed.

Rights and Limitations of Layout Designs

Rights

Subject to some exceptions under the Law, the registered owner of the layout design has the exclusive right to control the use and exploitation of a registered layout design in the manner specified under the Law. Under Article 116, the Rights granted to the owner include reproducing, selling, importing, or otherwise distributing, for commercial purposes, the registered layout design.

The Law also provides that the registered owner, apart from other rights, remedies, or actions, available to him, has the right to commence a legal action in a civil proceeding against any person who infringes or carries out an act that might lead to the infringement of his registered layout.⁴⁵⁰

⁴⁴⁹PIPL, art 113

⁴⁵⁰PIPL, art 117 (2)

Limitations to Rights

The Rights granted by the owner of a layout design are not absolute. There are limitations to these Rights provided under the Law. These limitations are as follows:

1. Exhaustion of Layout Design: Article 118, the Law provides for a National level of Exhaustion for a registered layout design. National Exhaustion means that the IP owner loses his right to determine the distribution of his product within a country at the first sale of the product within the country. The advantage of National Exhaustion is that it allows manufacturers sell their products at different prices in different countries with bouyant countries paying more.⁴⁵¹ In this context, the Law limits the registered owner from acts such as importation, selling, and distribution of his products that have been put lawfully in the market, in Rwanda, with his consent. In the case of *Boesch v Graff*,⁴⁵² “the question as to whether a dealer residing in the US could buy patented products from a legitimate seller in another country (from a licensee) and import and sell them in the US (where there was an existing patent on such product) without any further license or permission from the US patent holder. The Court opined that foreign law could not control US patents. Hence, following the territoriality principle, it decided that if an existing patent in the US protected a product, the US dealer could not import and/or sell the patented product without permission or license from the US patent holder.”

This was a clear case of limiting exhaustion within the national boundaries thus establishing the mode of national exhaustion.

However, for the rights of the owner to be deemed exhausted in Rwanda, the Minister, based on the recommendation of the Empowered Authority, has the power to declare the rights of a layout-design exhausted, and also to authorize others to import the protected layout design based on certain conditions. This is an interesting aspect of the Rwandan Law that makes it unique. It points to a deliberate effort by the Law and Government to ensure that rights holders fully enjoy the rights granted and are not taken undue advantage of, thereby spurring innovation.

2. Reverse Engineering: “Reverse engineering is a process used to analyze the design, structure, and operation of a product, object, or system obtained from public channels. It involves dismantling or disassembling a product, object, or system to understand the technology that makes it work.”⁴⁵³
Under Article 119, the right of a registered owner is also limited by Reverse Engineering. The Law provides that reproducing a registered layout design for the purpose of evaluation, analysis, research, education or private purposes and the incorporation, in an integrated circuit, of a layout

⁴⁵¹E. Otumala, “The Doctrine of Exhaustion of Rights in Trademark”, available at: <https://lawpavilion.com/blog/the-doctrine-of-exhaustion-of-rights-intrademark/#> (last visited on 13 February 2024)

⁴⁵²133 US 697(1890).

⁴⁵³Asia IP “Reverse Engineering” available at <https://asiaiplaw.com/section/in-depth/reverse-engineering-disassembled> (last visited on 4 February 2024)

design created based on such an analysis or evaluation that exhibits originality will not be considered an infringement. However, In *Altera Corp's* case⁴⁵⁴ the Ninth Circuit noted that a second mask work must of course not be “substantially identical to the original” and there must be sufficient evidence of “substantial toil and investment” often shown by a paper trail by the second firm showing its investment in creating a non-mask work of its own.

3. Innocent Infringement: Another limitation to the right of a holder of a protected layout design, is when an innocent infringer carries out acts deemed unlawful under Art 116 of the Law. An "innocent infringer" in this context is defined as a person who acquires a layout design product (either incorporated in an integrated circuit or an article) and does not know that the product is protected by a layout design right.⁴⁵⁵ The Law provides that an innocent infringer who reproduces or commercially exploits (i.e., imports, sells, and distributes) a protected layout design product will only do so to the products in stock or which he had ordered before knowing about the infringement but has to “pay, the owner an amount equivalent to the reasonable fee which could be demanded under freely negotiated contract for such a layout design.”⁴⁵⁶ In *Brooktree Corp. v. Advanced Micro Devices*⁴⁵⁷ the US Court of Appeals, Federal Circuit held that “even where the infringer had not yet begun to sell the infringing product, "losses incurred upon announcement by [the infringer] of the infringing activity may be included [in lost profits damages] when the losses are found to be reasonably related to the infringing activity.”
4. Commercial Exploitation of an original identical layout design created independently by a third party.

Commencement and Duration of Protection

The protection granted to a layout design is for a period of ten (10) years starting from the date of first use of the layout design, anywhere in the world, by the owner or with his consent⁴⁵⁸ or from the filing date assigned to the application for registration of the layout- design, if the layout design has not been used for commercial purposes anywhere in the world.⁴⁵⁹

⁴⁵⁴ [2005] 424 F.3d 109

⁴⁵⁵ *Supra* note 47 at 5

⁴⁵⁶ PIPL, art 119(3)

⁴⁵⁷ 977 F.2d 1555 (1993)

⁴⁵⁸ PIPL, art 120(1)

⁴⁵⁹ PIPL, art 120(2)

Licenses

Licensing is defined as “the permission granted by the licensor to the licensee to use his intellectual property rights under defined conditions”.⁴⁶⁰ It is one of the unique features of the Rwandan Law on Intellectual property because it is very particular about licensing and especially anti-competitive practices that have prejudicial effects on trade and distort industrial or commercial activities. The Law provides that “any limitations imposed on the licensee that is not derived from the rights conferred by the registration of the right, and not necessary to safeguard that right, shall be deemed abusive or, if they have anti-competitive effects, anti-competitive.”⁴⁶¹ The Law makes provision for 3 different kinds of licenses namely Contractual, Compulsory, and Ex-Officio compulsory licenses.

Contractual Licenses

Article 5(12) of the Law defines contract license as “a contract through which the industrial property right holder (licensor) grants any natural or legal person (licensee) the authorization to carry out, in the Republic of Rwanda and with regard to the industrial property right, any one of the acts that constitute the use of the industrial property right as referred to in this Law”. It further states that the license contract may be exclusive, semi-exclusive or non-exclusive.

For a layout design, the Law provides that “the owner of a registered layout design may, by contractual arrangement, grant a license to use his layout- design to another natural or legal person.” The license agreement must be in writing and must be signed by the parties to the contract.⁴⁶² The signed License Agreement is to be submitted to the Empowered Authority, who after examining it should record it in the register of layout designs.

To control unfair competition in connection with contractual licenses, the Law grants the Empowered Authority the power to take necessary measures to prevent or control license issuing practices such as coercive grouped license regimes, exclusive reassignment clauses, or conditions preventing the dispute of validity of the layout design recorded in the register. Consequently, the Empowered Authority is to examine before registration whether a license contract contain anti competition clauses that may affect trade and transfer of technology.

⁴⁶⁰B.J. Mariadoss (ed.), *Core principles of International* (Press Books, Montreal, 2017) available at: <https://opentext.wsu.edu/cpim/chapter/7-3-licensing/> (last visited on 13 February 2024)

⁴⁶¹ PIPL, art 124(8)

⁴⁶²PIPL, art 123(1)

Compulsory License

The Law defines Compulsory license as “the authorization to use a patented invention, industrial design, or layout design, granted to a third party by the Minister without the agreement of the right owner.”⁴⁶³

Compulsory license also constitutes a limitation to the rights granted under the Law, however for the Government to grant a compulsory license to a third party as regards a registered layout design there must be proof that there is a lack of or insufficient industrial or commercial use, in the Republic of Rwanda, or to remedy an abusive practice.⁴⁶⁴

Ex-Officio Compulsory License

Ex-Officio Compulsory license is the authorization to use a patented invention by public authorities or granted to a third party by the Rwandan Government without the agreement of the right Owner.⁴⁶⁵ The Government of Rwanda will only grant a compulsory license for the use of a registered layout design to a state department or a third party for reasons of national security, public health and environmental protection, or in a proven case of anti-competitive practices carried on by the registered owner.

Criminal Offences and Penalties

Forgery: Article 261 provides that any person that uses a layout design for commercial and industrial purposes without the consent of the registered owner in the Republic of Rwanda, will be guilty of the offense of forgery. The penalty for the offense is a fine of not more than fifty thousand Rwandan Francs (50.000) to five hundred million Rwandan Francs (500.000.000) or a jail term of not more than five years, or one or both of penalties.⁴⁶⁶

In addition, the Law provides that a competent tribunal may also order the seizure, confiscation, and destruction of the incriminating items and of all materials or instruments used mainly for the crime to be committed.⁴⁶⁷

Developing A Robust Layout Design of Integrated Circuits Legislation for Nigeria: Lessons from Rwanda

Nigeria and Rwanda are similar in some ways. Both are developing countries located in Sub-Saharan Africa.⁴⁶⁸ They were both colonized by European powers in the 1800s.⁴⁶⁹ While Nigeria gained its independence on October 1, 1960 from Britain, Rwanda became independent on July 1, 1962, from

⁴⁶³PIPL, art 5(12)

⁴⁶⁴PIPL, art 125(1)

⁴⁶⁵PIPL, art 5(13)

⁴⁶⁶ PIPL, art 263(1)

⁴⁶⁷PIPL, art 263(3)

⁴⁶⁸ J.I. Anekoson, “A Comparative Analysis of Health Indicators of Nigeria and Rwanda: A Nigerian Volunteer’s Perspective” 1(7) *AJPHR* 177 (2013)

⁴⁶⁹ A. Oluwashakin, “Nigeria-Rwanda Relations: Strengthening Partnership for Development” 4(1) *JCIRD* 656 (2023)

Belgium.⁴⁷⁰ In terms of language, English is the official language in Nigeria (the indigenous Yoruba, Hausa, and Igbo languages and dialects do not serve administrative purposes), so also in Rwanda, English is the primary medium of instruction in secondary and tertiary education though Kinyarwanda is the national language.⁴⁷¹

Nigeria can draw lessons from Rwanda for the development of its layout design of Integrated circuits legislation in the following ways:

1. Enact a *sui generis* legislation like Rwanda for the protection of integrated circuits. Apart from fulfilling its obligation to the TRIPs Agreement, a *sui generis* legislation for the protection of integrated circuits is apt for Nigeria, because it has the advantage of being flexible and particularly recognizes the special issues posed by new technologies such as Integrated circuits and other emerging technologies.⁴⁷²
2. To achieve the desired impact, Nigeria like Rwanda, should incorporate in its *sui generis* law, provisions and structures that ensure that integrated circuit is adequately protected. The Nigerian *sui generis* law should include amongst others
 - i. less stringent conditions or criteria for the grant of protection as opposed to the high standard requirements of patent and copyright.
 - ii. streamlined procedures for obtaining licenses. Specifically, the law should have measures that control unfair competition. Anticompetitive practices and conditions should be regulated.
 - iii. Criminal prosecution of willful infringement of protected layout designs. Penalties including fines and imprisonment are to be imposed. Providing criminal sanctions for intentional acts of infringement is usually an effective deterrent.⁴⁷³
 - iv. Limited duration of protection, so that the semiconductor industry and the public can benefit from the chip design and layouts.
 - v. Grant the Registrar the powers of a civil court to ensure the smooth operation and swift disposition of matters that bother on the layout design of integrated circuits so as not to further congest the court.
 - vi. Payment of royalty to the proprietor of registered layout design by an innocent infringer.
 - vii. National Exhaustion of Right at the first authorized sale.

⁴⁷⁰ *Ibid*

⁴⁷¹ Wikipedia, "Rwanda" available at: <https://en.wikipedia.org/wiki/Rwanda> (last visited on August 23 2024)

⁴⁷² National Research Council, *Global Dimensions of Intellectual Property Rights in Science and Technology* 251 (National Academies Press, Washington DC, 1993).

⁴⁷³ A. Gupta, "Integrated Circuits and Intellectual Property Rights in India" 10 JIPR 478 (2005).

- viii. Allow reverse engineering. Reverse engineering gives room for technology transfer, which is important for a least-developed country (LDC) like Nigeria. Reverse engineering is also a common practice in the integrated circuits industry used to ensure continued innovation.

Conclusion

Intellectual property is a fundamental business asset and a primary contributor responsible for causing human development and global economic growth to escalate to the next level and inadequate intellectual property protection makes it difficult for Innovators to benefit from their inventions, with adverse consequences to society.

The importance of intellectual property protection of integrated circuits cannot be over-emphasized. However, technologies like integrated circuits that require incremental innovations do not fit easily within the existing Nigerian intellectual property paradigms, because under the Copyright Act, integrated circuits are too functional to be a subject matter of protection and not "non-obvious" enough under the Patent and Design Act. While it may seem natural for the Copyright Act and Patent and Design Act to expand beyond their traditional concepts to protect integrated circuits; however, it may distort the essence of the law. In contrast, a *sui generis* law provides a special kind of intellectual property protection different from the known traditional framework. It is a regime especially tailored to meet a certain need and offers a special form of protection that is particularly adapted to a specific subject or specific circumstances, such as integrated circuits.

Like Rwanda, this paper proposes that Nigeria develops a robust layout design of integrated circuits *sui generis* regime that is specially designed to protect integrated circuits by incorporating lessons from the Rwandan Layout Design of Integrated Circuit Law.
