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DISCLAIMER

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I express my deep gratitude to Hon'ble Vice Chancellor Justice Mrs. Mridula Mishra, Hon'ble Registrar Shri Manoranjan Prasad Srivastava, for their free hand generous support in bringing this bulletin release. I also express my profound sense of gratitude to all the contributors, all the Hon'ble members of the Editorial Board, my colleagues at CNLU. I acknowledge the sincere efforts of composition team- **Mr. Prashant Kumar Pushkar** (Ph.D. Research Scholar, CNLU- Patna), **Ms. Baishali Jain** (Research Assistant, DPIIT-IPR Chair, CNLU-Patna) and **Mr. Amit Kumar** (IT) for giving this journal a proper shape, publication and release.

ABOUT CNLU

In the State of Bihar, where the seeds of the earliest republic were sownand the crop of democracy cultivated, a need was felt by the government for a university which would provide quality legal education and strive to raise national legal standards to competitive international- al level and promote legal awareness in the community, which will lead to the realization of goals embodied in the Constitution of India. Thus, onJuly 15th, 2006 came into being Chanakya National Law University at Patna un- der the able guidance of its Vice - Chancellor/ Pro - Chancellor, Prof. Dr. A. Lakshminath, former Dean and Registrar, NALSAR University of Law, Hyderabad. CNLU was established under the Chanakya National Law University Act, 2006 (Bihar Act No. 24 of 2006)and included in section 2(f) & 12(B) of the U.G.C. Act, 1956. No Educational Institution is complete without adequatefacilities to its Students, Faculties & Employees.

CNLU provides wide range of facilities on its campus. A well-managed residential accommodationwith modern facility provided to students. Mess & Canteen facilities on campus provide everything from a simple coffeeand sandwich to a full meal. University provides a full range of medical services for students & for employees who register as patients. In addition to general practice services, CNLU provides a range of specialist clinics and visiting practitioners. University organised regular careers fairs, training workshops, and one-to-one guidance for students. Counselling Service aims to enable students to achieve their academic and person- al goals by providing confidential counselling and support for any difficulties encountered while at CNLU. University provides a wide range of IT servicesincluding campus internet access via a wireless network and in student residences. Number of retired Judges of the Supreme Court, High Courts and lower Judiciary as well as Senior Advocates & Educationalist have offered to assist the CNLU in its teaching and re- search programmes making education at CNLU a rare and exciting experience to the student body. CNLU admired example of maintaining financial autonomy along with greater accountability. It is equipped with the state-of-art infra- structure for successful imparting of legal education of the highest standards. The faculty at CNLU comprises highly acclaimed and experienced academicians who are proactively involved in groomingthe younger generation to take CNLU to greater heights. The construction work of the university spread on 18 acres ofland at Nyaya Nagar, Mithapur near Mithapur Bus stand, Jakkanpur Police Station, Patna. A sprawling lawn with various types of palm trees has adds beauty to the landscape.

ABOUT CIRF-in-IPHD

Innovation is an imaginative initiative to resolve socio-economic –cultural –scientific-technological problemsof everyday life. Wherever we are, innovation is required for advancement-progress- prosperity. Innovation motivates for research – searching the solution to a problem. The intellectual property is a creation of mind. Itis in the form of copyright, patents, Trademarks, design, integrated circuit lay out design, trade secret, and geographical indications, bio-technological inventions, traditional knowledge, inventions related to plant varieties, farmers', and plant breeders' rights. Every types of intellectual creation is socio-economic oriented. But there is requirement of protection to the creators for their economic and moral rights involved in it. At the same time, the dissemination of intellectual property knowledge among the society is essential. The industry also requires connection and involvement. IPR is a subject interconnected with almost all walks of human life today. The requirements of in- novation in MSME cannot be denied which furthers employment in organised as well as unorganized sector. Likewise, the sports sector is closely connected with intellectual properties: patents, copyrights, design, trademarks, and traditional knowledge, etc.

The tourism has become a mega sourceof commerce and employment, where in the innovation is every time a challenge. The National policy on IPRdeals with the creation of Human capital with the same spirit that Human Rights tries to protect the Humanity.Hence, the Chanakya National Law University aims to encourage research and innovation in IP and interconnected areas, i.e. Entrepreneurship, Sports, Tourism and Human Rights, through this Centre. The Centrewill strive for the cause of economic development of the people of Bihar and all the persons/ innovators in general in IP and inter-connected areas –entrepreneurship, sports, tourism, and ultimately Human developmentby protecting Human Rights.

OBJECTIVES

	Institutional Activities	*Collaborative Activities*
□	Awareness towards intellectual property Rights through seminar /Conference/ Workshop/Symposium and Innovation March.	• IP and Sports industry • IP and Tourism • Global Trade in IP and Human rights • IP and entrepreneurship. • IP, Corporate and Competition. • IP and Information security. • IP, Humanities and Human Development • Community IP, Benefit Sharing and Economic development • Collaboration with Universities, NIPER, and RESEARCH CEN- TRES. • Industry –University collaboration,
□	Institutional project research from government Institutions/Research organisations in India/Abroad.	
□ □	Inter-University Collaboration for research in the field of Intellectual property.	
□	Facilitation Centre for registration and commercialisation related activities.	
□	Consultancy facility from expert.	
□	Publication of 'Research Journal in IP' and 'Inter-disciplinary journal' and 'Books'	
□	Organising Professional development pro- gram and Certificate courses.	
	Setting up Student IPR Club.	

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VICE-CHANCELLOR'S MESSAGE

Hon'ble Justice Smt,
Mridula Mishra, VC, CNLU.

It's a matter of great pride and pleasure that the Centre for Innovation Research and Facilitation in Intellectual Property for Humanity and Development (CIRF-in-IPHD) of Chanakya Law University is releasing a magazine namely: IP BULLETIN, half yearly. The Bulletin has a feature of magazine with an effort to accommodate the application of IPR in industries and significance in business, disseminate the programs of the centre, IPR discussion and debates, innovations in industries and MSME. This is a journal cum newsletter for encouraging the students' entrepreneurs, academicians, and professionals to write column, case study and judgement analysisin the field of IPR. It has aim to make the stake holders aware about IPRs. The contents are well arranged and informative. It will prove beneficial to all the stake holders. This journal is a magazine on National IPR Policy ofthe Govt. of India. This magazine contains the implication aspects of intellectual property, starting from awareness program, capacity building, entrepreneur- ship and industrial application. The IP Bulletin will work asper the policy of the government to harnessing the natural resources for employment and economic development.This bulletin discusses the crisp policies, DIPP policy towards Intellectual Property creation, Commercializationin India. This IP bulletin discusses the India's growth stories in IPR Regime despite Vice-Chancellor pandemic conditions which is a proved fact with the invention of Covaxin and Covidsheild. I wish all the best to the entire Team for this creative forum.

REGISTRAR'S MESSAGE

Shree Manoranjan Prasad Srivastava
Registrar, CNLU

The IP bulletin published by the centre is another milestone in its venture for the dissemination of intellectual property among the academia. Professionals, entrepreneurs, consumers etc. the academic Journal carries on materials for analysis, debates and discussion, but the magazine deals with miscellaneous pieces. It discusses the current issues and opinion of the concerned persons. It widens the knowledge of the readers. With this reference, this Bulletin has been launched to provide news on IPR, application of IPR in the industries, consumers' benefit, and innovations by the students, awareness programs and scope in the field of IPR. The bulletin expects to present the world the application of IPR in our day to day life. How IPR has become a part and parcel of our life, industry and business and employment. This bulletin will prove a very informative forum for all stake holders.

The National Policy on IPR is aversion document for intellectual creation, industrialization, commercialization, employment generation and economic growth. IOR is a creation of human mind which has potential to bring change if it is applied properly IPR is essential tool of entrepreneurship. This bulletin intends to create awareness among the professionals, entrepreneurs, industrials and commercial worlds. The bulletin will collect and organize material for the economic development to all the stake holders in future. I wish all success to the bulletin and all the best.

EDITORIAL NOTE

Prof. Dr. S. C. Roy
Dean- Research & Development;
Director- CIRF-in-IPHD
CNLU, Patna

The I.P.BULLETIN (Intellectual Property Bulletin is a publication of the Centre for Innovation Research and Facilitation in Intellectual Property for Humanity and Development (CIRF-in- IPHD).It is a Magazine, ISSN …..To be obtained as per rules. It carries news, column, case reports, essay writings events and activities, research in the domain of Intellectual Property Rights. It has to carry the application of intellectual creation which are of commercial significance. Intellectual property isa creation of mind. Why does it require protection? Whether all of us are aware of the Intellectual Property? Whether Intellectual property can speedup industrialization, commercialisation and generate employment? Whether Intellectual Property can boost up 'Make in India: Made in India; 'Stand up India: Start up India' Program? Whether Intellectual Creation have potency of making 'Self-Reliant Bharat' (Atma Nirbhar)? The Government of India has formulated 'National I P R Policy'in 2016 with a slogan 'Creative India: Innovative India'. It aims to IPR Awareness: Outreach and Promotion , To stimulate the generation of IPR, Legal and Legislative Framework - To have strong and effective IPR laws, which balances the interests of rights owners with larger public interest, Administration and Management - To modernize and strengthen service oriented IPR administration,Commercialization of IPR - Get value for IPRs through commercialization, Enforcement and Adjudication - To strengthen the enforcement and adjudicatory mechanisms for combating IPR infringements, Human Capital Development - To strengthen and expand human resources, institutions and capacities for teaching, training, research and skill building in IPR.

The I P BULLETIN is another venture of the Centre with respect to the National IPR Policy 2016, innovation policy 2019 and science and technology policy 2020, to work for MSME. They have beenworking towards the propagation of creativity, innovation, industrialization and commercialization of intellectual property. This Bulletin has features like events, columns, news, research information,case review, essays etc. The first Half Yearly Vol. III January-June Issue I of January 2022 is hereby submitted before the learned scholars, policy makers, entrepreneurs, MSME, Businessman, administrators, agriculturists and all the concerned stake holders.

I P BULLETIN

Vol 3 Issue 01, Jan- June, 2022

TABLE OF CONTENTS

S. No.	Contents	Author/authors	Page no.
1.	Intellectual Property & Copyright Infringement in Digitalization of Libraries	Aranya Nath & Gautami Chakravarty	1-10
2.	Challenges to IP Laws in India in the Age of E-Commerce	Dibyashree Roy	11-30
3.	Analyzing Bargaining Power and Exploitation in the Indian Music Industry: Exploring Copyright, Licensing, and Royalty Practices	Seetha Lakshmi	31-47
4.	Empowering SMEs through Utility Patents: A Catalyst for Human Capital Development	Shubhangi Sharma & Jayshree Priya	48-59
5.	Creating Laws for the Digital Age: the Legal Landscape to Navigate the Generative AI	Prakhar Suryawanshi	60-74
6.	Geographical Indications and Start-up India: Bridging the Gap between Cultural Heritage, Entrepreneurship, and Sustainable Tourism	Naina Chudasama	75-96
7.	At the junction of IP and AI: Reality, Presumptions and Possibilities	Anushka Joy	97-108
8.	Emerging Challenges in Copyright Protection for Cinematography: An Analysis of Digital Piracy and Streaming Platforms	Ketan Makharia	109-119
9.	Patents and Innovation in Pharmaceutical Sector: An Analysis in the Covid-19 Context	Darsana Suresh	120-131
10	Anti-Competitive behaviour in the patented pharmaceutical industry: A study of the cases before the Competition Commission of India	Smurthy N. Pradeep	132-143

I P BULLETIN

Vol. 3 ISSUE 1 JAN-JUNE 2022, pp. 1-10

Intellectual Property & Copyright Infringement in Digitalization of Libraries

Aranya Nath[1] *& Gautami Chakravarty*[2]

ABSTARCT

We are in the 21st century, where all possible tasks perform through digitalization; nowadays traditional form of taking books, periodicals, and journals from libraries in physical mode is obsolete. E-books and many other online applications are in the limelight where we can get all the authors' books together under one umbrella. Nowadays, we do not require to search for a particular author's written book at any shop. We all get all these together with editor's notes in online databases. As we are in a tech-based era, we need to have a strong IP Framework person team to safeguard the online databases, podcasts, and everything from getting infringed, as Social media plays an essential role in branding the business of digital companies like E-book reader, WPS software pdf reader, etc. Thus, in this article, we will discuss how IPR will comprehend a strong legal framework in safeguarding librarians' digital rights and the authors' rights from being misused and copying the original content directly.

Keywords: Copyright, Technology, Cyberspace, Digital Libraries, DMCA, Information Technology.

Introduction:

Intellectual property encompasses know-how, confidential information, trade secrets, designs, trademarks, and patents. It is essential to expanding creativity in nearly all facets of human endeavour and developing industry, commerce, and trade. People who develop novel, innovative ideas are attempting to obtain protections under this umbrella of intellectual property rights as the field of intellectual property rapidly advances. Authors, singers, artists, chemical engineers, and other intellectual property producers were sponsored by the State earlier, indicating they had flourished while working with the King's support in Copyright.[3] Its honour, bravery, and possessions were all dependent on the King. The results of their intellectual development culminated in the property of the State. The significance of

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[2] Final Year BA-LLB Kalinga Institute of Industrial Technology Bhubaneswar-751024.
[3] DUNCAN MATTHEWS, GLOBALISING INTELLECTUAL PROPERTY RIGHTS: THE TRIPS AGREEMENT (2002).

intellectual property rights became apparent only after the advent of the press for printing, which enabled the volume replication of books. The IPR legislation is critical to a developing country's socioeconomic, political, technical, environmental, and cultural benefits. It refers to mental creations such as innovations, literary and imaginative inventions, designs, economic symbols, names, and pictures. Intellectual property is an ensemble of legal rights that, in most situations, provide temporary protection for various sorts of innovation, design, brand name, or creative production. Intellectual property refers to various unique legal monopolies over intellectual creations, artistic and economical, and the legal industry. Intellectual property is a method of distributing information, apart from protecting the rights holders from illegal infringements and abuses of their rights. The original inventors and successors of creations addressed by Copyright have several fundamental rights.

They have the only right to use or allow others to use the work under agreed-upon terms. The author of a work may be prohibited or authorized:

- Its replication in many forms, such as printed publishing or sound recordings;
- Public performance, such as in a play or musical piece;
- Translation into another language or adaptation, such as a novel into a screenplay.

IPR-protected content, such as music, computer programs, and databases, may be readily reproduced and duplicated on the Internet, utilizing immediate reproduction techniques, publication, and distribution, incurring substantial financial damage to rights owners. Since the Internet is borderless and illegal content may flow through several geographical zones in seconds, the consequence of losses on the Internet tends to be larger. Detecting infringements of intellectual property rights is difficult in online and offline environments. Different regulations safeguard intellectual property rights, including Copyright, patents, trademarks, and trade secrets. Copyright legislation safeguards unique forms of expression such as literary work, music, computer software, and sound recordings. Patent law protects inventions such as items and processes, non-natural plants, and computer software. Words and logos are protected by trademark law, whereas unfair competition and trade secrets safeguard essential corporate information. Industrial designs cover unique and original designs used in machinery, equipment, and utility items. Intellectual Property novel violation in cyberspace, the Internet

has created hybrid kinds of infringing like linking,[4] framing[5], and meta-tagging[6]. Each government enacts laws that safeguard intellectual property rights.

Research Methodology:

The research performed by the authors is purely doctrinal as it is the most appropriate and suitable method for conducting the literary works of the research.

Research Objectives:

The research has been conducted in-depth analysis for the readers to gain some inputs in the arena of outlining the definition, history, traits, and objective behind turning into a digital library, followed by moving on to the proposed instances of that change, it additionally discusses copyrights and other forms of intellectual property, in addition to the difficulties and obstacles faced by digital libraries, before concluding with forecasts about what is to come.

Concept of Intellectual Property Law and Its necessary legislation for this arena:

The term "intellectual property" describes what is ultimately the outcome of an individual's creative thinking and imagination in addition to that people's rights to restrict how their works utilize. Intellectual property owners can purchase, sell, swap, and license their property to other people or organizations. The intellectual property lacks reality and does not resemble the musical, theatrical, or artistic creation that may have emerged from it. For instance, a book represents a physical property that can be transferred without causing damage to the owner's intellectual property, in this case, the artist's Copyright. Intellectual property legislation protects against infringement of the rights of others.

Need of IPR:

- It incentivizes people to strive for new inventions, acknowledges artists and innovators, and rewards intellectual property.
- Individuals and companies would only be able to reap the total rewards of their innovations if concepts were protected.
- It brings genuine and distinctive items available.
- It preserves individuals' rights to utilize their ideas and innovations.
- It guarantees protection against unfair commercial techniques.
- It guarantees the world's accessibility to useful, beneficial, and creative works.

[4] What is a Hyperlink? Definition for HTML Link Beginners, https://www.freecodecamp.org/news/what-is-a-hyperlink-definition-for-html-link-beginners/ (last visited Jun 28, 2023).
[5] Connecting to Other Websites - Copyright Overview by Rich Stim - Stanford Copyright and Fair Use Center, https://fairuse.stanford.edu/overview/website-permissions/linking/ (last visited Jun 28, 2023).
[6] Meta Tags - How Google Meta Tags Impact SEO, WORDSTREAM, https://www.wordstream.com/meta-tags (last visited Jun 28, 2023).

- It promotes the continual innovativeness and creativity of IPR owners.

Subsequently becomes essential for India to uphold its intellectual property system. It will create an intense drive to stimulate and sustain an effective innovation strategy for India's industrial and business sectors.[7]

Copyright Law and its Overview:

Copyright safeguards the author's, artists, or other creator's labour, skill, and judgment in creating an original work. It may grant to writers, actors, musicians, other artists, and makers of films and sound recordings. It is a collection of rights, including reproduction, disclosure to the public, modification, and translation of work. A copyright is a bundle of legal rights that authors appreciate for their creations during a limited time. In the United States, the U.S. Copyright Office works to "advance the progress of science and useful industries through providing authors and inventors the exclusive right to what they have created and written during a specified duration."

Copyright Law in Digital Age:

The 'digitization' of these assets into binary forms (0s and 1s), which are transmitted via the internet, re-distributed, replicated, and maintained in flawless digital form. Given the capabilities and characteristics of digital network technologies, e-commerce has had a considerable impact on the system of copyright and associated rights, and the breadth of copyright and related privileges influences how e-commerce evolves.[8] While licensing is precisely tailored for the Analog world, the digital environment has transformed how copyright content is advertised, disseminated, provided, and consumed, with significant implications for upstream and downstream rights-clearing techniques. Digital ownership rights are defined as follows by Business Dictionary.com: "Copyrights relating to digital assets (such as music or written works) published and distributed online via the internet or other computerized communication networks." Copyright holders, content providers, and others existed long before the advent of computers or digital media. The development of electronic media and analogs/digital converting technologies, particularly those accessible on mass-market general-purpose personal computers, has significantly exacerbated the issues of copyright-dependent people and organizations, as those people and groups rely partially or entirely on revenue derived from such an arena.

[7] Maryam Alavi & Dorothy Leidner, *Knowledge Management Systems: Issues, Challenges, and Benefits*, 1 CAIS (1999), https://aisel.aisnet.org/cais/vol1/iss1/7 (last visited Jun 28, 2023).

[8] 1483442479P8_M22.pdf, https://epgp.inflibnet.ac.in/epgpdata/uploads/epgp_content/S000021LI/P000038/M001891/ET/1483442479P8_M22.pdf (last visited Aug 3, 2023).

Advantages of Digital Technologies in Copyright Regime:

- **Transmission Facilitation:** Digital technology allows for the simple, quick, and worldwide dissemination of work without sacrificing quality and at a low cost. Once information from a single source reaches the recipient/s, electronic systems permit the recipient/s to pass it on to numerous receivers. Consumers confront no traditional barriers to sharing copyrighted content through online channels.
- **Speedy Accessibility to Electronic Materials:** Since the internet is widespread, customers who demand such inventions for their advantage have easy access to what's available on the digital platform.
- **Storage Facilitation:** Unlike conventional media forms, the digital medium provides a denser means of storing protected material. The complete collection may be stored on CDs, pen drives, or hard disks.
- **Easy replication:** The computerization of copyrighted works, which makes copy easier. However, because of tremendous advancements in such linked technologies, it is now quite simple to duplicate digital data with precision and clarity at a quicker rate. As a result, with the appropriate software and broadband connectivity, just one copy may meet the requirements of millions.[9]
- **Time-Saving:** When everything is available with a single click in a single location, time is bound to save. The transmission of protected information has become a time-saving activity for both parties, i.e., the writers and consumers of such work, thanks to modern technology. It also helps authors to make such compositions accessible online, saving them time in seeking an acceptable marketplace for the same. Furthermore, consumers' time visiting such locations to hunt for material reduces because digitization can access with just one click.
- **Budget Efficient:** Digital technologies that are both time efficient and incredibly inexpensive for both providers of copyrighted material and consumers.
- **Facilitating Authors' Immediate Publication:** The online medium provides a free environment enabling authors to make available their contributed works without the intrusion of traditional publishers. The conventional method of work propagation involves a gateway in the form of publishers, etc. that offers suitable platforms for distributing the work; however, in digital media, authors can make their work accessible to their targeted audiences with the intermediaries playing a smaller role.

[9] David L. Hayes, *Advanced Copyright Issues on the Internet*, SSRN JOURNAL (2016), https://www.ssrn.com/abstract=2847799 (last visited Aug 3, 2023).

- **Platforms to Facilitate the Development of Novel Different kinds of Functions:** The emergence of electronic devices has provided the birth to a completely new set of 'works' like multimedia works, computer software, databases,' and so on, adding such stars to the entertainment industry and transforming the work culture of almost all fields using like communication and information technologies."[10]
- **Challenges of Digital Rights environment in Copyright Regime:**
- **Holder:** The fundamental idea of copyright is that it forbids the copying of 'work' without the express consent of the copyright holder. As previously noted, the internet permits relatively straightforward dissemination of copyrighted material; nevertheless, due to a lack of strict oversight of its copies, which can produce readily and transmitted to millions of users, the copyright owner experiences financial harm. The digital platform enables mass dissemination of copied content while making it extremely hard for copyright holders to recognize and pursue legal action against the large number of persons violating their copied works.
- **Sharing and extracting:** Software Applications and documents could be copied into a computer's hard drive throughout the internet, thus providing a different strategy for copying data or work available via the internet. Sometimes, there are limits on downloading work that, if not obeyed, can result in a violation or even a criminal offense. Copying a video or audio file through companies that engage in Peer-to-Peer sharing (P2P) that contains audio or video format is similarly illegal.
- **Digital Media Plasticity:** In electronic mediums, users can readily edit, adapt, modify, or transform creations. Such flexibility and elasticity afforded by digital media enabled changing and amending digital material to a gentle process, prompting fears for individuals and owners regarding how their initial creation would be treated. Any undesired and unauthorized addition or deletion of the original text can change its overall significance, which may not be the writer's desire or intention.
- **Derivate works:** Derivatives creation happens when multiple programs or information sets merge or utilizes to generate new work. Using original works in derivative works without the author's consent is a copyright infringement.
- **Hot-linking:** Violations of copyright are also possible when a picture is shown online by linking to the website that initially hosted the image.
- **Caching and Mirroring:** Caching (also known as "mirroring," usually if it involves the preservation of a website or other full collection of material from a source) refers to

[10] *Id.*

the procedure of keeping duplicates of material from an initial content the source site (e.g., as a Web page) for future use when a copy of the information is needed repeatedly, thus removing the requirement to return to the original content source for such material. Caching aims to "speed up repeated utilization of information and minimize network bottlenecks caused by numerous transfers." This storing of such content is only transient, with times ranging from a few seconds to minutes to hours to days. The cache may be dangerous to copyrighted information since the same data is replicated and saved for later use, potentially harming the copyright holders' interests.

Digital Libraries & Copyright Legislation:

Electronic or publishing archives contain both copyrighted and non-copyrighted resources, including public domain works. For instance, a textual work or an e-book has protection as an item of writing, photos as a work of art, and a music DVD or CD as a performance of music. The notion applies to everyone, yet how artists express their inspiration and passion is unique, and these are protected characteristics. Copyright can only protect the form, and scientific and legal works are covered in this sense through national legislation and international conventions such as the Berne Convention. When the license period ends, the result of the art enters the public domain. It can be openly used, except for applying the moral right, especially the powers to acknowledge paternity and defend the reliability of the work, by the State portrayed by the Minister of Culture. It should be noted that a corresponding right is mandated in legislation for work properly published or shown to the public for the first time after the expiration of copyright protection.[11] As a result, it is important to check the origin of the work and the applicable regulations each time because the term of a moral right may be infinite, as in French law. In contrast, certain works enjoy "perpetual" protection.

Copyright Law & Information Technology in Digital Libraries:

While although it would be feasible to exist without copyright law in the traditional era, performing so in the digital age is impossible. The importance of Copyright has risen immensely with the rise in technological advances, governing just a few aspects of humanity to overseeing nearly every element of the way life is experienced through an electronic device. Given the competitive relationship between Copyright and Technology, one may wonder exactly what the essence of the risk to Copyright is in the modern age of electronic systems and institutions, which we have been experiencing for at least two decades. Copyright has never granted the owner full authority over every potential application of their creation. The premise

[11] Dionysia Kallinikou, *Intellectual Property Issues for Digital Libraries in the Internet Networked Public Sphere*. https://citeseerx.ist.psu.edu/viewdoc/download?rep=rep1&type=pdf&doi=10.1.1.206.440

of commercialization of Copyright induces a significant amount of exclusions to the limits for commercial utilization of intellectual property, especially intellectual property regulatory limits.[12] Some of these limits allow for lawful non-profit use of intellectual property in such a way that any usages beyond those authorized and enabled by law are not permissible without the express approval of the intellectual property right-holder. This vision of intellectual property law, a plain description of traditional intellectual property regulation designed to correspond with the traditional world, looks incompatible with digital reality. Given the current scenario, we may conclude that digital libraries that use ICTs and IP networks create and disseminate copyrighted content regularly, activating the potential for copyright infringement[13]. As a result, to keep up with the detrimental energy levels of ICTs and internet networks in a way that encourages transparency and open access to educational resources, we need to reinforce what already exists as a copyright legal structure, such as regulations regulating the functioning of digital collections and legal problems regarding the release of works.

Copyright Law & Open Access (OA) for Digital Libraries:

The Internet and the Open Access movement inevitably changed librarians' perceptions of their duties, including their significance in maintaining, archiving, and sharing expertise, art, and culture with the general public. [14]

Librarians who have had the opportunity to gain a grasp of what could evolve through their higher education in colleges and universities typically strive to develop strategies for choosing the results that are best related to the deepest values of their profession, particularly their desire to conquer obstacles in the freely accessible to information, art, and culture saved, archived, and distributed through libraries. [15]

The Internet and the Open Access movement inevitably affected librarians' concepts of what they do, especially how crucial it is in preserving, archiving, and propagating understanding, creativity, & literature to people of all ages. Owing to the interdisciplinary essence underlying their career, librarians, especially people who serve charities and individuals, are at risk of embracing approaches that remove both cost and authorization restrictions to preserve the information prevalent and open to everyone. The general public is a particularly important shareholder regardless of the library type.

The Librarian's Responsibility in Copyright Protection:

[12] *Id.*
[13] Abhijeet Sinha & Rajesh Kr Bhardwaj, *Digital Libraries and Intellectual Property Rights*.
[14] Kallinikou, *supra* note 11.
[15] Sinha and Bhardwaj - Digital Libraries and Intellectual Property Rights.pdf, https://rajkbhardwaj.files.wordpress.com/2014/02/art-9.pdf (last visited Aug 4, 2023).

In the digital age, knowledge is viewed as a resource without value unless extracted, processed, and used. Library and data science specialists give users information and acquire data from diverse sources. However, copyright rules do not address piracy and unauthorized usage. The argument over violating original writers' copyrights is crucial, particularly in the digital context, where digital material is easily captured, stored, processed, and downloaded. Because of the facilities involved in organizing, mixing, and remixing content, it is difficult to identify copyright infringement. So, Librarians and information scientists should receive knowledge of IPR regulations and be ready to participate when laws are amended to protect user interests. Fair use of print content establishes, but breach of copyright laws in the context of electronic data can be challenging to evaluate, grasp, access, and regulate. [16] It is hard for copyright owners to determine who utilized their work, provide authorization for usage, and get payment. Over here,[17] Copyright laws need amendment in such a scenario. Librarians in digital contexts have the same obligation to gather information and assist readers, even if that information is in the form of e-information. Librarians' responsibilities must be safeguarded and developed.

Conclusion:

The growth of information superhighways has serious ramifications for intellectual property, with digital technology causing major issues. Intellectual property rights (IPR) are essential for human innovation because they ensure inventors are acknowledged and compensated fairly for their efforts. Libraries must guarantee that the public can access digital material while protecting intellectual property rights. The digital era has resulted in significant modifications in company activity, with IPRs being required to combat computer software and other IT product piracy. Instead of erecting barriers, copyright protection should stimulate the use of knowledge for inventiveness. Libraries must assure public access while protecting their intellectual property as more content becomes available in digital forms.

Suggestions:

1. National entities that handle intellectual property rights must maintain a continual service-driven strategy by producing new and specialized services to meet the demands of societies that build their economic viability on the potency of their expertise.

[16] Dr Ekta Dubey, *Intellectual Property Rights: The New Challenges in Digital Environment*.

[17] Monica Henao-Calad, Paula Montoya & Beatriz Ochoa, *Knowledge Management Processes and Intellectual Property Management Processes: An Integrated Conceptual Framework*, 31 AD-MINISTER 137 (2017). https://doi.org/10.17230/ad-minister.31.8

2. Copyright laws should be updated to reflect our electronic and networked world and contemporary technical advancements regarding data management to protect intellectual property rights at the national and international levels.
3. Regarding the challenges surrounding librarianship and copyrights, it is necessary to conclude that library authorities should allow for limited photocopying. It should only occur after careful consideration of the user's request. Furthermore, the circulars published by the organization or UGC shall not override the provisions of the Copyright Act.
4. Librarians may additionally offer orientation workshops to help people become more aware of using e-resources more cautiously and legally. Librarians ought to keep acting as a catalyst for the free flow of information between copyright holders and information consumers.
5. IPRs are gaining stirring importance in the digital age, and there is an urgent need to examine the laws regulating print and other media at different levels. As a result, libraries and librarians should be granted restricted copying rights through acceptable modifications to the copyright legislation.
6. With a few exceptions, the stringent copyright laws do not match the digital era when every digital transaction results in a duplicated byte. We must take a more deliberate approach to rationalizing copyright, introducing broad fair dealing principles, lowering copyright conditions, decriminalizing charitable infringement, and other such steps. If we do not adopt such actions soon, we shall all treat like criminals for the rest of our lives.

I P BULLETIN

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Challenges to IP Laws in India in the Age of E-Commerce

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ABSTRACT

India is currently experiencing a digital revolution in the world of E-Commerce, creating numerous business opportunities and continually transforming the economy. According to the World Trade Organization, e-commerce involves the production, distribution, marketing, sales, or delivery of goods and services through electronic means. However, in the online world, intellectual property rights (IPR) are at risk due to the ease of copying and pirating protected information such as music, computer programs, and databases. IPR protection and e-commerce are closely related and complement each other. This paper provides highlights on how to protect IPR in electronic commerce. With the digital era, access to copyrighted works has become more accessible, making it easier to infringe on intellectual property rights. Selling counterfeit products on e-commerce platforms presents a significant challenge for IP enforcement, with the impact of loss often greater since the internet is borderless, allowing infringing materials to travel across different geographical regions within seconds. This paper examines the current legislation that governs various aspects of intellectual property rights (IPR) and the challenges that arise with the use of e-commerce in India. The paper provides an introduction to e-commerce and its evolution, as well as an exploration of the intersection between intellectual property and e-commerce. It discusses the issue of jurisdiction in cyberspace and how it extends to e-commerce. Additionally, the paper highlights how IP assets are significant resources for businesses and how entrepreneurs and the government can overcome challenges related to IP protection. In conclusion, the paper offers solutions to these challenges through the use of case law and suggests best practices that are appropriate for the Indian context.

Keywords: E-commerce, Intellectual Property Rights, Digital Era, Entreprenuers.

Introduction: Background and Significance of the Study

Intellectual Property (IP) is a valuable company asset that involves substantial investments of

[18] B.A.LL.B. (2018-2023) Symbiosis Law School, Hyderabad.

time, money, and ingenuity. IP is intangible, unlike tangible assets, and can include new ideas, distinctive names, and distinctive appearances that increase the value of items. In today's digital world, it is more crucial than ever to have a comprehensive plan to preserve Intellectual Property Rights (IPR). This takes careful consideration and preparation to protect the business's important intellectual property assets.[19]

When someone utilizes the literary works, music, photos, trademarks, service marks, or words of another without their permission, they are infringing on the owner's intellectual property rights. Due to the borderless nature of the internet, the effects of such infractions are compounded on the web, where counterfeit items may swiftly spread to many geographic places. It is difficult to detect IPR infringement both online and offline. Linking, infringement, framing, and meta-tagging are examples of new online intellectual property rights violations[20]. Case in point: "***Christian Louboutin SAS v. Nakul Bajaj and Others***[21]" in which the defendant was charged with selling counterfeit products. This case created new IP and e-commerce ideas, notably the "safe harbour" provision of the IT Act and the "first sale doctrine."

Intersection between IP and E-Commerce:

In the current economy, the significance of technology and creative works has boosted the proportional worth of IP assets. IP covers innovative concepts, distinctive phrases, names, and looks that provide value and distinction to products in e-commerce. It is possible to trade or "licence" intellectual property, allowing the transfer of rights from one owner to another and share risks and possibilities through licencing.

E-commerce began in the 1960s when corporations utilised Electronic Data Interchange to transport information electronically. Only in 1944, two friends sold a CD on "Net Market" which was the first online retail website after which, "Flipkart" was first born in India[22].

E-commerce is unique since it sells items and services based on IP and licencing. IP is the main value in e-commerce transactions for music, photographs, software, designs, training modules, systems, etc. IP rights safeguard the technologies that allow e-commerce to work, such as software, networks, designs, chips, routers, switches, the user interface, and more. Moreover, e-commerce enterprises depend on trademark law and unfair competition legislation to preserve branding, consumer identification, and goodwill.

The protection of intellectual property has a significant bearing on the growth of the online business. A person is said to have employed their IP rights, when they apply their brains,

[19] Ashish Kumar Srivastav, Reach of Intellectual Property Rights in Digital Commerce: An Indian Perspective, SSRN ELECTRON. J. (2022).
[20] Artee Aggrawal, Usage of Internet and the Evolving Challenges of IPR Issues in India : A Review (2015).
[21] Christian Louboutin v. Nakul Bajaj and Others, (2018) 253 DLT 728, (2018) 76 PTC 508
[22] Aggrawal, *supra* note 2.

creativity, and judgement to create physical and intangible property of unique value to society. To prevent IP infringements, it is required to effectively implement the law. To prevent cybersquatting, corporations should generate, manage, and defend their intellectual property, including registering domain names containing their trademarks. Encourage the use of electronic evidence to avoid intellectual property breaches online. Protecting intellectual property rights in cyberspace requires a varied strategy[23].

This study explains how E-commerce has become a popular method of trade, but it has led to the abuse of intellectual property rights. Further the author identifies that protecting intellectual property is crucial as valuable items traded online need to be safeguarded through technological security measures and IP laws. It discusses laws in place to combat counterfeiting practices and to protect IPR in India and the types of infringement that occur in e-commerce[24].

Research Questions:

Q1. How is e-commerce and IPR related and how does the protection of one boost the growth of the other?

Q2. What ways might India's current laws and more recent IPR regulations address inefficiencies?

Q3. What different types of infringement exist, and how do Indian laws and regulations protect IPR infringement in e-commerce?

Q4. What are the available protections awarded to online retailers related to IP infringement?

Q5. What steps may be taken to give current IP right holders better protection against online counterfeiting?

Hypothesis:

This essay addresses the growing concern over intellectual property rights brought on by increased internet usage. An administrator of intellectual property rights faces two fundamental issues on the Internet: what to regulate and how to regulate. The increased use of the Internet is expected to make IPR protection more difficult than it is now. Despite the fact that Internet usage in the country is going to soar, there are now no practical solutions to the intellectual property rights issues associated with Internet use due to the relatively limited empirical understanding of such issues. Intellectual property rights already raise certain issues, but they are more theoretical than actual. When E-Commerce and Intellectual Property intersect, courts and tribunals throughout the world are having difficulty determining the relevant legislation and establishing jurisdiction. This article examines the history and growth of e-commerce as well as the connections between intellectual property and e-commerce. Its primary focus is on

[23] Intellectual Property Rights & Electronic Commerce, *IP Rights - Introduction 16.1* (2004).
[24] *Id.*

the issue of cyberspace jurisdiction and how it pertains to e-commerce. In second part, it searches case law from courts throughout the world for solutions to this significant issue and provides best practises suitable for the Indian internet market and suggest important measures to combat the infringement problem.

Objectives of Study:

- To examine the various types of IPR and the literature on the development of e-commerce and its relationship to different forms of IPR infringement in India.
- To address inefficiencies in protection of IPR caused by a lack of knowledge about IP and cyber legislation.
- To research the rights, regulations, and legal frameworks connected to IP infringement on the internet.
- To evaluate landmark case laws that set precedent over the protection of IP in e-commerce and to device methods to combat infringemnet of IP assets of owners.

Scope Of Study:

This paper's scope includes identifying the rights protected by various intellectual property rights laws in India, current IP issues, the different types of infringement brought on by the rise in knockoffs on e-commerce sites, theories developed to combat the growing threat to protect clients' IP rights from evolving counterfeiting practises, and policy rights to protect IPR in India with a few comparisons to other common law countries. Further the paper elucidates on the Indian scenario of digital rights management of copyright, trademark and patent infringement, and the many types of infringement that occur in e-commerce and how it affects enterprises.

Limitations Of Study

- The vast majority of prior research in this area has been abstract, speculative, and generic about the issues pertinent to the Indian paradigm, limiting exposure to more extensive and forthcoming issues, according to an objective analysis of more than 100 papers and articles published in the last 20 years.
- Because the research article is restricted to the Indian setting, it restricts further study of international laws and Acts enacted to address the problem of IPR infringement in the increasingly common e-commerce sites in foreign nations.
- Since India is currently establishing its infrastructure to accommodate the expansion of the Internet, the country's e-commerce and owner rights protection through law are still in their infancy. This circumstance highlighted a need for a more complete investigation of a research opportunity in the Indian environment.

Research Methodology:

The research methodology used was doctrinal or library-based research, which is the most popular strategy used by people conducting legal study. The author of this study has examined the legal nuances surrounding the subject at hand, focusingS primarily on Acts and legislation pertaining to IPR and IT. This type of methodology therefore aims to identify specific pieces of information by conducting specific enquiries.

Literature Review:

Publications on the use and abuse of the internet in the globalized era is proliferating. Below is a review of a few published research articles to help you comprehend the controversy around the topic:

- **Rishu Srivastava, S.S. Rana & Co. Advocates (2022)[25]:** in this research paper, the author examines the early 1990s advent of the "World Wide Web," which has since ushered in the acceptance of online shopping due to its easy accessibility and adaptability, with companies developing ways to use the Internet as a marketing and commercial tool. The author talks about the problems a trademark owner has, including illegal deep linking, meta-tagging, banner advertising, misuse of search engine marketing, and SEO manipulation. Along with this the author discusses the innate technological nature of patents and how it can be utilised to manage intellectual property. However, the author fails to enunciate more on new age problems related to trademark in e-commerce and counterfeiting and how business must be equipped with legal strategies to combat the same.

- **Artee Aggrawal, Jatin Trivedi and Sucheta Burman (2015)[26]:** In this study, the authors examine how increased internet usage has raised fresh issues related to intellectual property rights. Despite the fact that Internet usage in the country is going to soar, there are now no practical solutions to the intellectual property rights issues associated with Internet use due to the relatively limited empirical understanding of such issues. The study, however, falls short of elaborating on intellectual property rights, which are currently in existence but only in principle practically applicable, such

[25] Rishu Srivastava, *Internet electronic commerce-and intellectual property*, (2016), https://www.mondaq.com/india/trademark/455958/internet-electronic-commerce-and-intellectual-property.

[26] Jatin Trivedi Artee Aggrawal, *EMERGING TRENDS OF E-COMMERCE IN INDIA: AN EMPIRICAL STUDY*, 1 INT. J. BUS. QUANT. ECON. APPL. MANAG. RES. 2 (2015).

as the particular issue faced by IPR administrators in balancing the interests of numerous Internet players.

- **Dr. Smt Rajeshwari M. Shettar (2011)[27]:** Her research presents an outline of the evolution of e-commerce in India and lists the businesses that are present there. The research also came to the conclusion that while domestic and international trade should be allowed to grow, the government should take care of fundamental rights like privacy, intellectual property, fraud prevention, consumer protection, etc. The study's research gap was the author's failure to foresee future challenges in the complexities of cross-border e-commerce that would arise from India as a result of globalisation.

- **Nisha Chanana and Sangeeta Goel (2012)[28]:** In their report, they made an attempt to analyse the outlook for India's e-commerce future and examine probable future development areas for the sector. A number of factors were found in the study to be essential for the development of Indian e-commerce in the future. The survey also predicted that e-commerce will rise rapidly in India's expanding market over the next years. The main barriers to e-commerce that pose substantial dangers for intellectual property infringement and the counterfeiting of actual goods—lack of confidence in e-commerce transactions, secrecy, and outdated legislation—are not mentioned in the poll.

- **Anukrati Sharma (2013)[29]:** Author made an effort to research the most recent trends, influences, and customer preferences toward e-commerce and online shopping in her paper and provided recommendations for how to improve e-commerce websites. The majority of those involved in purchase decisions, according to the report, are between the ages of 21 and 30. Making websites for online commerce requires careful planning and smart design. This study has a flaw in that it doesn't address necessary issues like distribution rights, copyright laws that are consistent with the first sale doctrine, etc.

[27] Dr. Smt Rajeshwari M. Shettar, *EMERGING TRENDS OF E-COMMERCE IN INDIA: AN EMPIRICAL STUDY*, 5 INT. J. BUS. MANAG. RES. 25 (2016), https://issuu.com/invention.journals/docs/e05902531.
[28] Nisha Chanana & Sangeeta Goele, *Future of E-Commerce in India*, INT. J. COMPUT. BUS. RES. 1 (2012), http://www.researchmanuscripts.com/isociety2012/7.pdf.
[29] Dr. Anukrati Sharma, *A_STUDY_ON_E_COMMERCE_AND_ONLINE_SHOPPING_ISSUES_AND_INFLUENCES @ www.academia.edu*, 4 INT. J. COMPUT. ENG. TECHNOL. 364 (2013), https://www.academia.edu/2958134/A_STUDY_ON_E_COMMERCE_AND_ONLINE_SHOPPING_ISSUES_AND_INFLUENCES.

even while it makes recommendations for how e-commerce enterprises can change their user interface to safeguard IP rights.

- **Yu Yang and Lei Zang (2018)[30]:** The author of this study emphasises how, as a result of the growth of Internet information technology and the increasing opening up of the world economy, politics, science, and technology, among other sectors, all have undergone continual progression. As a result, the line of defence is continually being breached by the protection of intellectual property rights, such as trademarks and patents. The author claims that in addition to patent data, a comprehensive analysis of intellectual property rights today incorporates business, economics, and trade, technological, legal, and other information. These disjointed bits of information or data will be linked together by big data to produce a natural ecosystem.

- **Marcus Holgersson and Sarah van Santen, (2018)[31]:** This paper examines current IPR regulations and provides information on how IP rights (IPRs) are significant sources of competitiveness for businesses today and that IP rights make up a growing portion of their resources. The author gives a study of the literature in the broad area of IP management research and draws the overall conclusion that while the field is rich and expanding swiftly, there is not enough attention paid to and information available on strategic IP management challenges.

- **Ming Yang, 2008[32]:** The author claims that a corporate intellectual property strategy and secrecy are crucial elements of the firm development plan. Businesses carry out a wide range of commercial activities, including intelligence gathering, market forecasting, product development, and corporate strategy. In the case that the corporate intellectual property limit expires or is withdrawn, the corporate intellectual property strategy should be changed now. The formulation and execution of the corporate IP strategy should be done in collaboration with the location where the IP rights are created in order to connect the enterprise's commercial operations with territoriality.

[30] Yu Wang & Lei Zhang, *Research on Intellectual Property Protection of Industrial Innovation Under the Background of Big Data*, 1088 ADV. INTELL. SYST. COMPUT. 1765 (2020).
[31] Marcus Holgersson & Sarah Van Santen, *The Business of Intellectual Property: A Literature Review of IP Management Research*, 1 STOCK. INTELLECT. PROP. LAW REV. 44 (2018).
[32] Ming Yang, *Research on Intellectual Property Rights of Electronic Commerce from the Perspective of Big Data*, 68 ATL. PRESS 442 (2019).

- **ChunYi Lin, (2015)[33]:** The author highlights In today's world, corporate intellectual property strategy is a big asset to business growth. First of all, it may result in a general improvement in the business's core competitiveness and innovation potential. In order to ensure that the intellectual property system can be used more effectively, it may also conduct a more thorough investigation of it. Intellectual property strategy may also be employed as a preventative tactic against intellectual property theft by the business. Lastly, corporate intellectual property strategy may affect, support, and ensure sustainable business development through intellectual property transactions.

- **Thakur, Aditi Verma, (2012)[34]:** In this article, the author tries to generalize the perspective of business units in relation to other companies. It claims that a company's brand name is a valuable marketing tool. A strong brand name acts as a powerful instrument for boosting the business side of goods as well as the company's performance. The author concludes by emphasizing that businesses must comprehend the significance of names and identities, as well as their underlying consequences.

Overview of Kinds of IPR:

i. Copyright

Copyright is the legal protection accorded to creativity, databases; and computer programmes. The software employed by the e-commerce website is a protected work. The sign "©" or the term "Copyright" indicates that a work is protected by a legal claim[35].

ii. Patents

In exchange for comprehensive public disclosure of an innovation, a sovereign state grants an inventor or assignee exclusive rights for a limited time called patent. Patents facilitate E-Commerce licenses, outsourcing, and strategic alliances. Patents allow E-Commerce enterprises to record and develop creative ideas, hence boosting sales by providing products with qualities not accessible to competitors[36].

iii. Trademark

It is a distinguishing term, symbol, design, phrase, or other object that is used to designate the

[33] ChunYi Lin, *Exploration of Intellectual Property Protection Strategies for Cross-border E-commerce*, 245 2021 5TH INT. CONF. ADV. ENERGY, ENVIRON. CHEM. SCI. (AEECS 2021) (2021), https://www.e3s-conferences.org/articles/e3sconf/abs/2021/21/e3sconf_aeecs2021_01062/e3sconf_aeecs2021_01062.html.

[34] Aditi Verma Thakur, *Branding and business management: Leveraging brand names for business advantage*, 17 J. INTELLECT. PROP. RIGHTS 374 (2012).

[35] Arturo Ancona, INTELLECTUAL PROPERTY AND E-COMMERCE WIPO-WASME SPECIAL PROGRAM ON PRACTICAL IP ISSUES Geneva , October 6 to 9 , 2003 (2003).

[36] Lipi Parashar, INTERNATIONAL JOURNAL OF LAW MANAGEMENT & HUMANITIES The Protection and Enforcement of Intellectual Property Rights in the E-Commerce Industry, 3 INT. J. LAW MANAG. HUMANIT. 119 (2020), https://www.vidhiaagaz.com.

origin of goods or services. In the internet world and E-Commerce, trademarks play a vital role in establishing a company's brand image by expanding or selling the firm[37].

iv. Trade Secrets

Trade Secrets are any sensitive business information that gives a firm a competitive advantage. It comprises sales tactics, distribution strategies, customer profiles, and advertising strategies, etc.

v. IP Assets and Licensing

Intellectual property (IP) assets are part of an organization's intangible assets. They enjoy legal protection, which may be enforced in a court of law. IP assets are independently identifiable and transferable. A licencing agreement is a partnership between an intellectual property rights owner (licensor) and someone who is permitted to utilise such rights (licensee) in exchange for an agreed-upon payment (fee or royalty). With this type of arrangement, the franchisor will guarantee that the franchise holds the managerial and technical capabilities required to uphold quality and other requirements for the use of the trademark[38].

Relation of IPR in E-Commerce:

Online shopping involves IPR. E-commerce operators must protect numerous sorts of intellectual property. E-commerce intellectual property laws cover the following[39]:

- Patents and utility models safeguard crucial components of the internet, including e-commerce platforms, search engines, and others.
- Depending on the country's intellectual property rules, certain software, such as the text-based HTML code used by websites, is protected.
- Copyright law also protects the general aesthetic of an online shop's website.
- The Copyright Law safeguards all of the website's content, including any text, audio, or video files, as well as any images, graphics, etc.
- Businesses can secure their databases through copyright or country-specific database regulations with the help of E-commerce in IPR.
- Brand names, product names, logos, domain names, and other identifying marks placed on a company's website can all be protected under the Trademark Law.
- Organizations can seek legal protection for their computer-generated displays, graphic signals, websites, and graphical user interfaces under the Industrial Design Law.

[37] Goce Naumovski et al., Convergence of Trademark Law and, 1 424 (2014).
[38] Ancona, *supra* note 17.
[39] Sargunpreet Kaur, Analyzing the Conception of Ipr in the E-Commerce Industry, INT. RES. J. MOD. ENG. TECHNOL. SCI. 145 (2022).

- Trade Secret Laws protect a website's confidential visuals, object and source codes, algorithms and programmes, user manuals, and database contents.

As the internet continues to develop, it is more important to be familiar with the concepts of intellectual property and e-commerce. There are four contexts when intellectual property rights apply in online trade[40]:

i. Safeguarding business interests of a company:

Businesses need protection from competitors, and intellectual property laws do just that. Many abuses of IPR occur because of the violation of IP policies and rules, especially in today's digital economy. This means that anything from software to design may be copied and distributed globally without the original creators being compensated. Legislation protecting intellectual property rights in online trade, however, allows businesses to feel safe[41].

ii. Safeguarding essential components:

IP law is especially useful in safeguarding a company's valuable data and technological assets like networks, routers, designs, software, and chips, etc. These elements, which come in the form of a wide variety of intellectual assets, should be safeguarded since they are essential to the internet's successful operation.

iii. Protecting products and patent licences:

E-commerce business depends on patent and product licencing. Many web-based organisations employ third parties to construct components of their products or licence their proprietary software since combining so many distinct technologies into a single offering is difficult. The agreement covers IP protection.

iv. Safeguarding patent portfolios and trademarks:

Almost everything of value that an e-commerce company has consists of its ideas and designs. A patent and trademark portfolio is a common asset of such a corporation, increasing the worth of the enterprise. So, intellectual property rights rules in e-commerce serve to protect such patents, portfolios, and trademarks.

IP Infringement and E-Commerce- Addressing inefficiencies:

i. Copyrights and related rights

The true problem in the digital age to protect copyright is striking the correct balance between protecting the rights of owners and allowing materials for public usage. Several creators have

[40] Aggrawal, supra note 2.
[41] Kaur, *supra* note 21.

suffered substantial losses due to fast digitalization and unauthorised duplication, and dissemination of their product.

These "peer-to-peer" (P2P) networks allow millions of users to post and distribute different sorts of files through the Internet, often breaching copyright in the works by linking to them and facilitating their distribution. This has resulted in widespread digital piracy[42].

One further thing that has to be addressed is the conditions under which an Online Service Provider (OSP) might be held liable for infringing activity undertaken by the subscribers. "The Information Technology (Amendment) Act, 2008", although not directly addressing any IPR issues, makes a provision that would have an impact on the IPR in e-commerce and the digital environment, unlike the "Copyright Act", which does not confront the liabilities of online intermediaries insofar as copyright infringement is concerned and copyright owners have to resort to other ways of protection like "watermarking" and "encryption".

ii. Trademarks and Domain Names

Trademarks are just as important in the virtual world of e-commerce as they are in the real one. Due to the lack of personal interaction inherent in online transactions the brand value of the product is of utmost importance. Unauthorized deep linking, meta-tagging, banner advertising, framing, search engine marketing abuse, SEO manipulation, mouse trapping, etc., are only some of the internet threats that trademark owners must contend with[43].

The need for this was seen in **"*Flipkart Internet Private Limited v. www.flipkartwinners.com & Ors.*[44]" where** Flipkart, the e-commerce behemoth, had entered a lawsuit claiming permanent injunction, prohibiting the owners of "www.flipkartwinners.com" from using the trademark "Flipkart" or other confusingly similar names that infringe on registered trademarks or domain names of "Flipkart", contests, or anything else that would constitute trademark infringement. Here, the Court granted Flipkart a permanent injunction prohibiting the Defendants from using the mark "Flipkart."

iii. Drawbacks of Patents in E-Commerce

The e-commerce sector's reliance on IT infrastructure highlights the importance of patents. The proliferation of this sector may be directly attributed to the patent system that incentivizes scientists and engineers to develop novel technology. Yet, the question of whether or not business methods should be open to patent protection remains contentious. Advocates believe that patents foster knowledge exchange and give companies a competitive edge, but detractors

[42] Srivastav, supra note 1.
[43] Ancona, *supra* note 17.
[44] Flipkart Internet Private Limited **v.** www**.**flipkartwinners**.**com **&** Ors**.,** 2019 SCC OnLine Del 7370

are concerned about possible abuse of the system and obstruction of competition. Nevertheless, patents have been issued for business methods conducted online or over the phone, as well as for financial services, and electronic sales and advertising techniques.

iv. Jurisdiction in Cyberspace

Due to the nature of the internet, wherein parties from all over the world may establish virtual links with one another, determining territorial jurisdiction over a dispute can be tricky. It might be difficult to establish traditional prerequisites for jurisdiction when dealing with the internet. However, facts such as the location of the server and the place from where the user downloaded the work might help establish whether a certain court has jurisdiction over the matter[45].

In the case of "***Himalaya Drug Company v Sumit, the Delhi High Court[46]***" established jurisdiction over an overseas defendant as internet users in Delhi had access to infringing copies. The defendant copied the plaintiff's herbal database and posted it on a US server-hosted website. The court granted an injunction, and the plaintiff ordered the US-based ISP to remove the infringing website, which was duly done.

In the case of "***World Wrestling Entertainment, Inc. v. M/S Reshma Collection[47]***", the Delhi High Court decided that the buyer's place of residence would be the deciding factor in trademark and copyright disputes involving e-commerce. The court agreed that technological advances and the rapid growth of online business models have made it possible for entities to have a virtual presence that is far from their physical location. The court said that a seller's ability to do business through a website in a certain place is the same as having a physical store in that place.

Another troublesome menace is when the defendant uses trademarks of other brands in the product description for promotion. This was seen in the leading case of "***Cartier v. Yihaodian and Mkela Company[48]",*** *where the trademarked wordings- "Cartier Style" was used wrongfully and in* ***"Flipkart Internet Private Limited v. Somasundaram Ramkumar[49]"*** **where Flipkart** filed for a permanent trademark injunction to restrain the defendant from using its registered trademark and domain name and befitting from the reputation and goodwill of Flipkart which the Madras High Court condemned illegal.

v. Infringement Concerns in Case of Physical Goods

[45] Matthias Eggertsson, Pompano Beach & U S A Florida, Intellectual Property Infringement: a Case Study on Ecommerce Counterfeiting, XXII INT. J. CASE METHOD RES. APPL. 3 (2010).
[46] Himalaya Drug Company v Sumit, the Delhi High Court, 126 (2006) DLT 23, 2006 (32) PTC 112 Del
[47] World Wrestling Entertainment, Inc. v. M/S Reshma Collection, (2017) 237 DLT 197
[48] Cartier *v. Yihaodian and Mkela Company,* (CA) in CA-G.R. SP No. 60827
[49] Flipkart Internet Private Limited **v.** Somasundaram Ramkumar**,** 2015 SCC OnLine Mad 6468

Customers may be confused by counterfeit and parallel imported goods sold on e-commerce websites. The textile business is extremely susceptible to counterfeiting. Establishing the origin of counterfeit goods is essential for establishing jurisdiction. ISPs can help locate the seller, and jurisdiction is determined by the defendant's domicile or the location of the infringement. Infringement of physical goods can be defined by "parallel importation" refers to the export of lawfully manufactured and traded commodities. The products themselves are not inherently suspicious. To prevent undesirable competition, national laws may restrict the importing of specific goods. If the sale or import of such items by a third party violates patents, trademarks, or copyrights in a specific nation, it is illegal. Often, the things listed on e-commerce websites are genuine but meant for sale in a different nation.

vi. Infringement Concerns in Case of Transaction Information

This happens when a firm may construct a website utilizing the domain name of another company's trademark. These businesses may supply comparable or distinct products or services, but their primary objective is to confuse the public in order to expand their own businesses.

Legislations Governing Cyberspace And E-Commerce: Overview of IP Laws and Regulations in India That Governs, Enforces and Protects IP in E-Commerce

i. I.T. Act, 2000

In 2000, the Indian government passed the "Information Technology (IT) Act", which was the nation's first law governing e-commerce. For the first time in India, the Act acknowledged the legal validity and enforceability of digital signatures and electronic records in an effort to decrease electronic forgeries and facilitate e-commerce transactions.

ii. Indian Contract Act, 1887

The IT Act controls the legality, communication, acceptance, and withdrawal of electronic contracts, as well as the enforceability of terms of service, privacy, and return policies on online platforms which are considered enforceable contracts.

iii. Consumer Protection (e-commerce) Rules, 2020

"The Consumer Protection (E-Commerce) Regulations, 2020" were published on July 23, 2020 by the Ministry of Consumer Affairs, Food and Public Distribution to protect consumers from unfair commercial practises and to address their complaints. The salient features of the new rules with respect to IPR are as under are as follows[50]:

[50] Rights and Commerce, *supra* note 5.

- This regulation covers all digital or electronic network transactions, including digital products, and applies to all types of e-commerce, such as multi-channel and single-brand retailers, as well as marketplace and inventory-based e-commerce models. It also encompasses all forms of unfair commercial practices.
- On their platform, e-commerce businesses must give users with clear and accessible information, including their legal name, address, website, and the contact information for customer service and the grievance officer.
- The entity is required to establish a complaint procedure and list the officer's identity on its website. Complaints should be acknowledged within 48 hours and resolved within a month.
- E-commerce entities selling imported goods/services must disclose details of the importer from whom they have purchased or who is selling on their platform.
- Entities involved in e-commerce must require vendors to guarantee that the descriptions and photographs of their products and services are truthful and match to their features.
- E-commerce retailers are required to include the "country of origin" for their product listings, which can be a challenging task given the vast number of products listed on platforms like Flipkart and Amazon.
- E-retailers should not accept the use of their name for private brand names if doing so would constitute an unfair trading conduct and harm the interests of customers. Private brands with the prefix of the e-commerce brand will be scrutinised if it is determined that they are anti-consumer and anti-competitive.

iv. *IT Act Intermediary Guidelines, 2011*

- "The Intermediary Guidelines Regulations of 2011" require intermediaries to prohibit certain types of information, such as sexually explicit material, from being posted on their platforms. The proposed Draft Regulations seek to prohibit a new category of material, namely anything that constitutes a threat to public safety.
- The intermediaries are obligated to help any government agency within 72 hours and enable the source of information to be tracked on their platform.
- Intermediaries must use automated tools to detect and remove illegal content from public access. Those with over 50 million users must also create a corporation in India.

Available IP Protections in E-Commerce:

i. *Take Down Notice*

Whenever any owner of IP discovers that their copyrighted content has been posted to an e-

commerce website without their permission, they have the right to request that the Internet Service Provider (ISP) remove or block access to the infringing work.

The IP owner must have registered their IPR in India and produce registration paperwork for their trademark, patents, or copyright for a take-down action to be effective. The take-down notice is a written warning, and if the infringing content is deleted in response, the digital commerce website may be free from liability under rule 75 of the "Copyright Rules, 2013".

ii. Injunction

The court has the authority to issue an injunction against an e-commerce website if the website is found to be selling goods without the proper permission or recognition from intellectual property owners, based on complaints received. Recently, the Delhi High Court granted an interim injunction prohibiting Flipkart from selling Xiaomi mobile phones in India, since the business was discovered to be an unlicensed Chinese manufacturer that infringed on Ericsson's patents in the case of "***Ericsson vs. Xiaomi Technology***[51]***"***.

In 2014, the Delhi High Court prohibited "ShopClues", an online marketplace in Gurgaon, from using L'oreal's trademark owing to the selling of counterfeit items by an unauthorised vendor. Several prominent companies, including Tommy Hilfiger, Ray-Ban, and Skullcandy, also filed similar complaints and received preliminary injunctions against "ShopClues" for selling counterfeit goods on its platform.

"Nike Innovate C V v. Shoesnation & Ors.[52]***"***, where "Nike Innovate", the registered trademark owners of the marks "NIKE", "SWOOSH device", and "NIKE AIR", filed a suit seeking a permanent injunction prohibiting "Shoesnation" from using the "SWOOSH device" in conjunction with the mark "FITZE", where the Court concluded that the "Swoosh device" or the "tick mark" used in the counterfeit goods are quite alike, and decided in favour of Nike.

iii. Intermediaries Liability and Assessing Infringement

The subsection 2(w) of the IT Act governs internet intermediaries in India. The e-commerce websites are referred to here as intermediates.

Secondary liability" in e-commerce refers to a party materially contributing to, enabling, inducing, or being responsible for directly or indirectly infringing acts carried out by another party, often associated with unfair competition law. There are two types of secondary liability:

[51] Ericsson vs. Xiaomi Technology, (2016) 66 PTC 487

[52] Nike Innovate C V v. Shoesnation & Ors., CS (Comm) No.542/19

1. Vicarious Liability: The scenario occurs when a third party has the ability and authority to oversee the acts of the principal offender and directly benefits financially from the infringement.
2. Contributory Liability: This is applicable when the defendant has knowledge of the violation and significantly contributes to it.

In the case ***"Kent RO Systems Ltd. & Anr. v. Amit Kotak & Ors."***[53], the Delhi High Court ruled that an intermediary is only required to delete or deactivate information on their site upon receiving a complaint and doesn't have to actively review every content stored on their site for infringing content. However, there have been instances where the Delhi High Court has taken a different stance. In ***"Facebook Inc. v. Surinder Malik"***[54] and ***"My Space Inc. vs Super Cassettes Industries Ltd."***[55], the Delhi High Court held intermediaries responsible for removing posts that have been brought to their attention following due diligence under Section 79(3). The court clarified that a court order is only necessary for matters specified in Article 19(2). The court also introduced the concept of "actual or specific knowledge" and held intermediaries accountable if they fail to take down infringing content after being informed by the content owner[56].

Analysis of Landmark Case Laws:

i. Liability of E-Commerce Websites in IP Infringement

- When intermediaries actively engage in intellectual property infringement, the IT Act no longer affords them protection. In **"*Christian Louboutin SAS v. Nakul Bajaj and Ors.*"**[57], the Delhi High Court determined that the defendants exceeded their intermediary position by deliberately detecting, promoting, and selling counterfeit items in India. The court noted that not all e-commerce platforms qualify as intermediaries simply by declaring themselves such, and that failure to apply "due diligence" might exclude them from the safe harbour protection under Section 79(3)(a) by constituting "conspiring, aiding, abetting or inducing" unlawful conduct. This decision represents a fundamental change in Intellectual Property Protection[58].

[53] Kent RO Systems Ltd. & Anr. v. Amit Kotak & Ors., (2017) 240 DLT 3
[54] Facebook Inc. v. Surinder Malik, (2019) 80 PTC 390
[55] My Space Inc. vs Super Cassettes Industries Ltd., (2006) 9 SCC 414
[56] Ancona, *supra* note 17.
[57] Christian Louboutin v. Nakul Bajaj and Others, (2018) 253 DLT 728, (2018) 76 PTC 508
[58] Asomudin Atoev, Intellectual Property Rights and the Internet in Central Asia, 1 POLICY STUD. 1 (2004).

- ***"L'oreal v Brandworld, 2016[59]"***, the case involved ShopClues.com as the Defendant which was accused of selling fake L'oreal products on its website. This case stood as a landmark judgement and an advisory issued to all e-commerce websites to follow recommended practices enumerated in the "IT Act Intermediary Guidelines, 2011":
  - E-commerce platforms should have an IP protection team to research goods and brands sold by new sellers before registering them. This includes searching for trademarks and informing the actual trademark owner about the seller's registration on the website.
  - E-commerce platforms should establish a clear agreement with their sellers, stating that if the platform receives any reports of counterfeit or similar goods from the trademark owner, the listing will be immediately removed.
  - E-commerce platforms should display an IP infringement policy on their website, with a procedure for reporting grievances and a structured dispute resolution policy.
  - Considering the number of items being sold, e-commerce platforms should reduce the processing time for disputes. Even if the seller is registered on the site, if a counterfeit or infringing goods is reported, it should be withdrawn quickly to prevent any potential damage.
- ***"Amway India Enterprises v. 1mg Technologies Ltd & Anr.[60]"***, a recent joint judgement of the Delhi High Court, raised the question of responsibility for E-commerce websites and IP protection. While the issue was the same as in prior cases, the plaintiffs in this instance were direct selling companies claiming that the sale of counterfeit items on e-commerce platforms harmed their company. They contended that their business strategy required exclusive relationships with clients and that E-commerce sites selling their products, even if they were authentic, were detrimental to their brand. The court determined that E-commerce platforms did not adequately protect intellectual property since they enabled different vendors to utilise their warehouses and its workers tampered with parcels. In addition, the platforms failed to warn consumers that certain vendors were not approved by the manufacturer, making it harder for buyers to identify genuine products. The applications were disposed off, and the E-commerce platforms were ordered to stop selling goods from the aggrieved direct selling entities, unless they had explicit permission to do so[61].

[59] L'oreal v Brandworld, [CS (COMM) 908/*2016*
[60] Amway India Enterprises v. 1mg Technologies Ltd & Anr., (2019) 260 DLT 690
[61] Eggertsson, Beach, and Florida, *supra* note 27.

ii. Protection of IP on the Internet

- ***"Yahoo!, Inc. Vs. Akash Arora & Anr.[62]"***, this case establishes an important precedent for the protection of intellectual property rights on the internet under Indian IPR law. The Delhi High Court found that a domain name acts similarly to a trademark and, as such, deserves comparable protection. The case included the domain names "Yahoo!" owned by the plaintiff and "Yahoo India!" owned by the defendant, which were almost similar in pronunciation and appearance. Hence, there was a substantial probability that internet users using the plaintiff's domain name would be misled into believing that the defendant's domain name was affiliated with or came from the plaintiff. In addition, the Delhi High Court remarked that the defendant's disclaimer was insufficient, as the usage of a similar or same domain name on the Internet cannot be remedied by a disclaimer. In addition, the fact that 'yahoo' was a dictionary word was immaterial since it had developed originality and individuality via its relationship with the plaintiff. In the matter of ***"Rediff Communication vs. Cyber booth & Anr.[63]"***, the Bombay High Court also noted the significance and value of a domain name that serves as a competitive advantage for a corporation[64].

Conclusions:

i. Summary and Suggestions

Daily, the courts face novel and intricate IP related difficulties, as seen by recent decisions. In spite of this, they have consistently interpreted and applied the pertinent laws to guarantee that everyone receives justice that has increased public confidence in the judicial system.

Major platforms have built complaint mechanisms for takedown procedures since e-commerce websites typically enable intellectual property violation. Brands must adhere to their regulations in order to enforce their rights. Internet platforms can reduce their liability by deploying effective and cost-effective procedures to detect and remove unauthorised content. Programs such as YouTube's Content ID Filtering System and Amazon's "Amazon IP Accelerator programme" aid brand-owner merchants in securing and safeguarding their intellectual property[65].

[62] Yahoo!, Inc. Vs. Akash Arora & Anr., 1999 (19) PTC 201 (Del)
[63] Rediff Communication vs. Cyber booth & Anr, 2000 PTC 209
[64] Kaur, *supra* note 21.
[65] Parashar, *supra* note 18.

Considering recent instances of infringement, it is advised that e-commerce websites prominently publish a notice of infringement and provide a dispute resolution tool. Also, they should strive to reduce the time and effort required to resolve intellectual property issues. Concerned intermediaries should evaluate the items and services they offer, how they promote and characterize them, the extent of control they exert over trademark usage by end users, and their role in the sale of goods. Moreover, seller verification is a useful technique to confirm that sellers are authorised to sell the items they want to offer on the website.

As e-commerce platforms continue to spread worldwide and foreign companies find popularity online, third-party content responsibility becomes a global concern. Instead, more than depending on the domestic laws of certain nations to safeguard e-commerce websites and trademark owners, the focus is now on the best practises that e-commerce websites and trademark owners should employ to preserve their rights and limit their responsibility[66].

ii. Strategies for Better Protection of IP in E-Commerce

Trademark and copyright infringement are common in digital commerce. IP holders often sue e-commerce platforms, so joint and several liabilities should be established for platform operators. Strong monitoring teams should be formed to track IP violations and educate sellers and consumers about the consequences[67].

E-commerce websites in India can also take help of various IP protection tools that can be purchased from marketplaces and are currently being used worldwide such as[68]:

- Notification systems: You can report possibly infringing listings on e-commerce sites using these services. Often, they give web forms with detailed instructions or downloaded forms to be sent by email. Often, information about your firm, your intellectual property rights, and the allegedly infringing postings is necessary.
- IP protection programme: These tools give a straightforward method for reporting allegedly infringing listings and a dashboard for monitoring notifications and results. There may also be search tools for identifying listings that may violate your rights.

[66] Srivastav, supra note 1.
[67] Eggertsson, Beach, and Florida, *supra* note 27.
[68] *Id.*

- Contact point: This service provides support if you experience problems when utilizing a notification system or enrolling in an IP protection programme.

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Analyzing Bargaining Power and Exploitation in the Indian Music Industry: Exploring Copyright, Licensing, and Royalty Practices

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ABSTRACT

The Indian music industry has undergone significant changes in the past decade, particularly after the implementation of the Copyright (Amendment) Act, 2012. However, despite its growth, the industry still lacks a well-defined structure due to imbalances in bargaining power and exploitative practices. This paper explores the dynamics of bargaining power in the Indian music industry by analyzing key events such as the lobbying efforts during the 2012 amendment, relevant case laws, and the observations made by the judiciary. It also examines the role of formal partner industries including radio, film, and television in royalty sharing.

The paper calls for the establishment of a proper licensing mechanism, fair value negotiations, and improved transparency to protect the rights of copyright owners, authors, and communication platforms within the Indian music industry.

Keywords: copyright, music industry, bargaining power, licensing, royalties

Introduction:

The Indian music industry has undergone significant changes in the past decade, particularly after the implementation of the Copyright (Amendment) Act, 2012. However, despite its growth, the industry still lacks a well-defined structure due to imbalances in bargaining power and exploitative practices. This paper explores the dynamics of bargaining power in the Indian music industry by analyzing key events such as the lobbying efforts during the 2012 amendment, relevant case laws, and the observations made by the judiciary. It also examines the role of formal partner industries including radio, film, and television in royalty sharing.

The paper highlights the exploitation faced by artists, often stemming from their legal illiteracy and the misuse of bargaining power by major music companies. A case in point is the battle initiated by renowned music director A.R. Rahman in 2006. Rahman aimed to secure the rights

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of lyricists and composers by urging music companies to share publishing rights. His fight against the prevailing industry practices demonstrated the excessive bargaining power held by these companies. Although the 2012 amendment introduced changes to copyright law regarding royalty sharing, the situation has not improved significantly.

The Indian music market, much like its global counterparts, is predominantly controlled by large music companies such as Sony, T-series, Saregama, and Zee Music. This paper investigates the factors that have propelled these companies into their influential positions. While comprehensive market dynamics cannot be fully captured through literature surveys alone, the insights provided by industry experts contribute to understanding the nature of bargaining power in the industry.

Additionally, the malfunctioning of copyright societies, particularly the Indian Performing Right Society (IPRS), plays a significant role in the industry's challenges. IPRS, which should protect the rights of copyright authors, is dominated by representatives from major music companies. The paper explores the questionable practices and controversies surrounding IPRS, including its tripartite agreement with Public Performance Ltd. (PPL) and the Indian Music Industry (IMI), which prioritized the interests of music labels over authors and composers.

The presence of bargaining power is essential for the growth of any industry, including the music industry. However, the abuse of bargaining power can hinder industry development. Establishing fair and transparent practices in licensing, distribution, and royalty sharing is crucial for the industry's sustainability. The involvement of formal partner industries, such as radio, film, and television, in revenue sharing is also vital. The paper calls for the establishment of a proper licensing mechanism, fair value negotiations, and improved transparency to protect the rights of copyright owners, authors, and communication platforms within the Indian music industry.

2012 Amendment-Bargaining in the Music Market: History

Numerous instances within the industry are illustrative of the exercise of bargaining dynamics, whereby even esteemed music creators found themselves with little recourse but to acquiesce to the voluntary exploitation orchestrated by significant music conglomerates. These conglomerates often allocated a disproportionately meager share of proceeds to these creators in comparison to the substantial gains accrued from the utilization of works originating from these creators.

The initiation of a legal struggle by A.R. Rahman in 2006 epitomizes the pronounced exertion of bargaining leverage by prominent music conglomerates in India. In 2006, A.R. Rahman, acclaimed as the highest-paid music director in the Indian music domain, embarked on a

campaign to compel music corporations to equitably distribute publishing rights to lyricists and composers. This endeavour led him to withdraw from a substantial project at that time, "Om Shanti Om." Rahman's objective was to reshape the operational norms of the Indian music industry. A.R. Rahman said[70]:

> "I want to push for the copyright of composers and lyricists, even producers. I'm not saying that I want to be the sole proprietor of the songs I compose. But I want a share. There's nothing wrong with that. I can't run to music companies like T-Series and Sa Re Ga Ma every time I need to use my own song."

In response to inquiries about potential project losses, A.R. Rahman expressed his willingness to subsist on autonomous musical projects. As an established music director, the potential diminution of one income stream is not an overriding concern for him. This elucidates why other music directors, lyricists, and composers are less inclined to overtly challenge the inequitable contractual practices pervasive within the industry. This concern surfaced as one among several issues preceding the 2012 amendment, often concealed or not extensively discussed within the industry's landscape.

The ramifications of the 2012 amendment reverberated profoundly within the Bollywood sector, albeit for a limited period following its enactment. Diverging from prior revisions, the 2012 amendment incited a plethora of conspicuous public deliberations and discussions[71], dominating the prime time broadcasts of media and television channels. A salient subject of these deliberations pertained to the amendment itself. Evident from parliamentary dialogues, the amendment was promulgated with the primary intention of rectifying prevailing injustices, particularly concerning licensing, assignments, and the apportionment of royalties to creators of musical and sound recording works.

Central to these discussions was the vigorous lobbying efforts led by Javed Akhtar, a prominent lyricist and then Parliamentarian, aimed at foiling the exploitation of lyricists and composers. This lobbying was a focal point during parliamentary debates concerning the 2012 amendment. Notably, Akhtar's activism commenced prior to his election to the Rajya Sabha, during which he faced threats from various production houses and music labels who indicated a reluctance to engage in collaborative endeavors with him.[72]

Of paramount significance in Akhtar's discourse was the assertion of major music companies'

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[70] Aravind, "A.R.Rahman's protest!"*available at*: http://arrahmaniac.blogspot.com/2006/10/arrahmans-protest.html (Visited July 15, 2023).
[71] Subhash K Jha, "Stop Interfering, Aamir: Javed Akhtar" *Times of India*, Feb.16, 2010.
[72] *Ibid.*

acquisition of the Indian Performing Right Society (IPRS). In public forums and interviews, Akhtar extensively conveyed his reservations about how significant music corporations surreptitiously gained control of IPRS both before and subsequent to the 2012 amendment.[73] He vehemently opposed the misuse of bargaining power by these entities, who influenced IPRS policy determinations to the detriment of lyricists and composers, leading to unpaid royalties.[74] Akhtar's perspective on this acquisition can be traced back to his contestation in 2004 when Saregama, a prominent Indian music label, legally challenged his election to the IPRS Board.[75] These music enterprises orchestrated industry dynamics in their favor, evident in their resistance to Akhtar's appointment to the Board of Indian Performing Right Society (IPRS). This opposition underscored their apprehension, given their awareness of Akhtar's insights into the intricate negotiations and exploitative practices by music corporations against the lyricists and composers community.

The absence of substantial political organization prior to Akhtar's lobbying endeavors was a chief contributing factor to this exploitation, in contrast to the more organized authorship industry in the European Union and the United States, where creators possess adept collective bargaining prowess. Various other factors also contributed to the impetus behind the 2012 amendment. The concerted exertion toward this amendment represents the most substantial demonstration of industry bargaining power to date, even though its efficacy waned within a few months post-amendment.

IPRS and its malfunctioning:

A comprehensive exploration of the industry's bargaining dynamics would be remiss without addressing the operations of copyright societies, specifically the Indian Performing Right Society (IPRS). The current composition of the IPRS Board of Directors serves as a noteworthy illustration. Among its 11 members, 6 are delegates representing prominent music entities such as Times Music, Saregama, T-Series, and Adithya Music, Sony Music, and Ultra distributors.[76] The conspicuous dominance of influential music corporations within the pivotal copyright society underscores a blatant truth – which the pursuit of an equitable and impartial industrial framework remains a distant aspiration for less influential stakeholders such as lyricists, composers, and directors.

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[73] Rahul Bhatia, "The Quiet Royalties Heist" *Open The Magazine*, 2011 *available at*: http://www.openthemagazine.com/article/art-culture/the-quiet-royalties-heist (Visited August 5, 2023).

[74] Aparna Joshi, "Spicyip" *Spicyip*, 2023 *available at*: http://spicyipindia.blogspot.com/2011/03/soundbox-carries-interview-with-javed.html (Visited August 2, 2023).

[75] *Ibid.*

[76] "Board Of Directors – IPRS," *iprs.org available at*: https://iprs.org/board-of-directors/ (Visited August 10, 2023).

Preceding the 2012 amendment, a sequence of occurrences at IPRS significantly informed the discourse surrounding the amendment. Originally established as a corporate entity encompassing film producers, authors, and composers, IPRS encountered setbacks when it entered into a tripartite agreement with Public Performance Ltd. (PPL) and the Indian Music Industry (IMI), then known as the Indian Phonographic Industry (IPI). This agreement marked a turning point, heralding challenges for IPRS and bearing implications that resonated throughout the discussions surrounding the 2012 amendment. The main objectives of the agreement are as follows (paras 1, 2, 3 and 5 of the MoU):

(i) *"IPRS should extend membership to music labels registered with PPL and IMI causing to derecognise and replace all film producers from its membership;*

(ii) *After extending membership to the music labels from PPL & IMI, IPRS would ensure that its future earnings would be distributed in the following ratio: 50% of all revenue would go to the 'music publisher' members of IPRS (in this case the music labels from PPL) while 30% of all revenue would go to composers and the remaining 20% would go to author members of IPRS, who are mainly lyricists and composers.*

(iii) *The 'Governing Council' of IPRS had to have equal representation from composers, lyricists and music labels since at the time of signing the MoU, the Governing Council had 6 composers, 6 lyricists and only 2 music label members."*

Furthermore, beyond the aforementioned conditions, IPRS was also obligated to make a self-deprecating declaration affirming its recognition that music labels possessed the performing and mechanical rights pertaining to all musical and literary compositions featured within sound recordings, which were under the ownership of these music labels. This declaration also indicated that allocating 50% of the proceeds to composers and authors was done with the intention of motivating and supporting them (as stated in paragraph 4 of the Memorandum of Understanding). This measure was executed subsequent to the unanimous approval of this Memorandum of Understanding by all of its members.

The potential enrolment of IPRS as a copyright society had the potential to spark another dispute. The higher-ranking officials within the Copyright Office displayed a considerable lack of attentiveness in the process of registering IPRS as a copyright society, and they even disregarded numerous warning signals brought to their attention by junior officers.[77] For example, the registrar of copyright ignored the fact that the membership to IPRS was not liked

[77] Prashant Reddy, "The 'Numbers' continue to talk – PPL's Revenues from Mobile Ringtones has Zoomed up by 1857% in 6 years from Rs. 7 Crores to Rs. 137 Crores," *Spicyip* 12 February, 2011, *available at* http://spicyipindia.blogspot.com/2011/02/numbers-continueto-talk-ppls-revenues.html

to 'ownership' but 'authorship' of a particular copyrighted work as against the Copyright (Amendment) Act, 1994 which required that all that IPRS should be in control of the owners of the copyrighted work it administers and not the authors.[78]

Another event of malfunctioning by IPRS was the baseless statements given as reply by IPRS in a petition filed by Universal Music Company against IPRS alleging mismanagement. A petition alleging mismanagement of a company before the Company Law Board (hereafter 'CLB') required the assent of at least 20% of the membership of the company, to be admitted.[79] Here, instead of strongly contesting the petition by seeking a dismissal of the petition, IPRS casually gave some statement replies without any motive to protect the interest of its majority members who were lyricist and composers and sought to defend the interests of the minority members who were the music labels.[80] One of such incriminating statements by IPRS went like this:

> *"It can thus be said that the said lyricists and/or composers do not hold any copyright or cannot be termed as the owners of copyright unless of course they have a contract to the contrary."*

They also submitted that:

> *"It was agreed that 50% of the income therefrom would go to the music publishers, 30% to the composer members and 20% to the author members (lyricists in this case) of the Respondent No. 1. The composers and authors were given the aforesaid share in the income not because they had a right to it but just to encourage them."*

The IPRS thus informed that whatever payments are made to the authors and composers are only in the form of *gratis* and they couldn't claim any royalty right. The CLB in this case directed to authenticate the Register of Owners/Members of IPRS.[81] Upon the release of the registry, it was observed that solely music enterprises were listed as the copyright holders for all the musical and literary works managed by IPRS.

After this, the 37th Annual General Meeting was convened and unsurprisingly, only the music companies were present for the meeting i.e. the representatives of (i) Saregama India Ltd. (ii) Tips Industries Ltd. (iii) Universal Music India Ltd. (iv) Venus Records and Tapes Ltd. (v) Sony Music Entertainment Ltd. (vi) Virgin India Ltd. (vii) Krunal Music Ltd and none of the lyricists or composers were present. In this general meeting, they changed the governing laws i.e. Memorandum of Understanding and Articles of Associations ensuring that membership

[78] Section 35, *Copyright (Amendment) Act, 1994.*
[79] Section 399, *the Companies Act, 1956.*
[80] *Universal Music India Ltd. V. Indian Performing Right Society (IPRS)*, 1977 AIR 1443.
[81] *Supra note* 9.

was based only on ownership of copyrighted works and weighted voting rights to be based on the numbers of works owned.[82]

After the 37th AGM, all the composers and lyricist were asked by the management at IPRS controlled by music companies to sign a standard format letter requiring them to accept the 1993 MoU and that the music labels own all their works. Many like Akhtar refrained from signing but later agreed. Those who did not sign were prevented from earning annual royalties that they usually receive from IPRS.

The story of IPRS and the abuse of bargaining power is never ending. The above-mentioned reasons, among many others, were why people like Javed Akhtar strongly opposed the industrial structure and in house negotiations that finally led to the 2012 amendment. Despite the 2012 amendment, it is learnt that the industry is still struggling to uphold the rights of copyright authors.

Music Industry Post-2012 Amendment:

The amendment was passed by the legislature after much deliberations, primarily for the reason of it intended to be a 'pro-author' one. The amendment attempts to create a level playing field for the producers/owners and the authors of a literary/musical work/sound recording while negotiating and entering into contracts, thus defining their contractual relationships with each other. This amendment has given rise to a new era in the Indian media industry as the primary aim of it was to protect the rights of the authors of literary and musical works and to ensure that they receive royalties shared equally upon utilization of the work, from the owner of the work.[83] This amendment was whole-heartedly received by the producers as well as authors, initially, however, the oomph in receiving the amendment didn't last long. The industry stakeholders, though initially accepted the amendment as a welcoming one, later suggests that the industry is still facing issues specifically with reference to the sharing of royalty and superseding of rights under Sec.14 of the Act through contracts (though there are hardly any 'written agreements' while undertaking a work, however, absence of 'written agreement' does mean the presence of 'oral agreements'). Record labels and producers also allege that the amendment impedes or restricts free trade and is an impediment towards freedom of agreements according to dynamics in the market.[84]

Though the amendment was welcomed as a light of change in the industry by the composers'

[82] IPRS, *Minutes of the 37th Annual General Meeting of the Owner Members of The Indian Performing Right Society,* (2008).

[83] Section18, *Copyright Act, 1957.*

[84] Anand Nair, "Royalties And Rights Sharing In Film Industry In India Post Copyright Amendment Act 2012 – Impact On Contractual Freedom: A Comparative Study With The US And The UK Copyright Regimes," *WIPO Academy, University of Turin and ITC-ILO - Master of Laws in IP - Research Papers Collection* – (2012-2013).

and authors' associations, however, the 227th Parliamentary Standing Committee Report (hereinafter 'report') states that there were huge oppositions towards the amendment particularly on the ground that free e in the market are hindered due to the amendment. Another opposing argument was from the broadcasters and media people contending that they won't be able to make full use of the rights obtained through contracts even after payment of lump sum amounts to producers. The key highlight of the amendment was obviously the proviso under Sec.18 of the Act which mandates that the author has right to equal share of royalty upon utilization of work and that he cannot waive this right, whatsoever. The key issue highlighted by many is the restriction on freedom of contract.

During one of the conversations with a young music producer from Kannada music industry, it was learnt that most of the distributors and publishers prefer verbal contracts, of course to negate the situation of a documentary evidence in case of legal conflicts, and that big music companies purchase a song at once on a fixed amount and whatever the actual returns are, a share of it does not go the authors, as against Sec.18, in majority of cases. This is where bargaining plays a massive role in manipulating artists.

An illustrative incident pertains to the Competition Commission of India's imposition of a fine amounting to INR 2.83 crores[85] on T-series in 2014 for the exploitation of their dominant position through unjust business practices related to licensing Bollywood music to private FM radio stations. This fine equates to eight percent of Super Cassettes' (T-Series) mean turnover over three fiscal years starting from the 2008-09 financial period. This instance stands as evidence that the 2012 amendment failed to effectively enforce its objective of regulating equitable negotiations within the industry. Additionally, comparable interventions from bodies like CCI or other judicial entities are rarely witnessed within the sphere of the music industry.

Numerous additional challenges, encompassing both legal and pragmatic aspects, confront the industry, significantly influencing the bargaining processes within it. These challenges consequently have a profound effect on the involved parties, particularly authors and owners. Several of these challenges are elaborated upon in the subsequent sections:

i. **Ambiguity in the language of Sec.18**

Sec.18 of the amendment is causing exasperation amongst the stakeholders.[86] While the

[85] "Competition Commission of India slaps Rs 2.83 crore fine on T-Series," *The Economic Times*, 1 October 2014.

[86] Section 18, *Copyright Act, 1957.*

"Assignment of copyright— (1) The owner of the copyright in an existing work or the prospective owner of the copyright in a future work may assign to any person the copyright either wholly or partially and either generally or subject to limitations and either for the whole term of the copyright or any part thereof:

…

Provided also that the author of the literary or musical work included in a cinematograph film shall not assign or

proviso gives that the author has to be given an equal share of royalty, it doesn't specify which person/entity should pay the same. The natural upshot would be the person 'utilizing' the work because without 'utilization' the question of royalty doesn't come into the screen. However, the industrial practice has always been such that the assignees or licensees exploit this lacuna by emphasizing that they are not responsible for paying the royalties as per the statute. Additionally, the plight of the authors is such that they can neither waive off their rights due to the statute nor do they end up getting their share of royalties, eventually leading to the contract being void. But, since there is no provision of preemption in the proviso, it is also only right to be adamant that the assignees or licensee pay the royalties to the author, if they are the ones that finally utilizes the work.

While talking about the 'utilization of work,' there has been dispute as to defining 'utilization of work' in the court room, as mentioned by Adv. Manojna Yeluri, Media and Entertainment Lawyer, in one of her interviews, as to whether 'utilization' starts the moment the copyright owner licenses the work to a music label or when the label licenses it to a streaming platform or when the streaming platform sublicenses it, the concern definitely goes to the copyright authors being denied equal share of revenue. This lacuna also needs to be clarified by the legislature, as long as there is no opinion from the judiciary.

There are further ambiguities regarding the term 'equal share' of royalties under the proviso. While it is meant to share in 3 parts between the author of literary works, musical works and the owner of sound recording, contractually what happens is that, 50% of the revenue goes to the licensee and the remaining 50% is apportioned between the authors of literary and musical works. However, there is another trauma that the industry is facing in the context of online streaming, where by, the current practice (almost accurate) of royalty sharing is such that after a reduction of around 30% as charges (Service, communication and other charges), the final share that the lyricists and the composer gets are approximately around 8% or even less.[87]

So, in order to address the industrial relations and the issues surrounding bargaining, it is worth-noting that such legal lacunae also need to be clarified, first.

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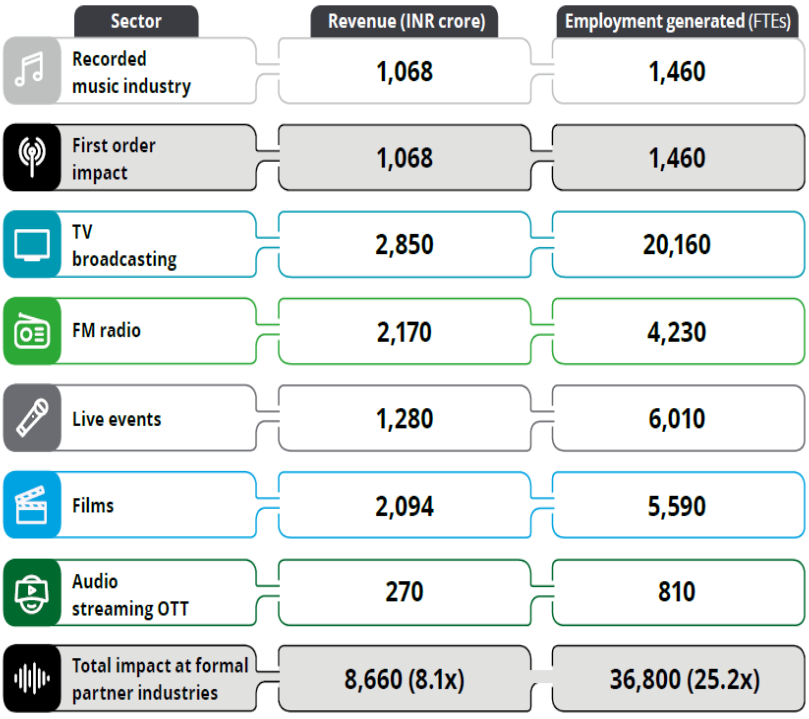
waive the right to receive royalties to be shared on an equal basis with the assignee of copyright for the utilization of such work in any form other than for the communication to the public of the work along with the cinematograph film in a cinema hall, except to the legal heirs of the authors or to a copyright society for collection and distribution and any agreement to contrary shall be void:

Provided also that the author of the literary or musical work included in the sound recording but not forming part of any cinematograph film shall not assign or waive the right to receive royalties to be shared on an equal basis with the assignee of copyright for any utilization of such work except to the legal heirs of the authors or to a collecting society for collection and distribution and any assignment to the contrary shall be void."

[87] Akshaat Agarwal, "Who Gets Paid for the Music You Listen to?: Revamping Music and Copyright in India (Part I)," 2020, *SpicyIP, available at* https://spicyip.com/2020/12/who-gets-paid-for-music-revamp-music-copyright-india-part1.html

ii. **Fair value negotiations and formal partner industries**

Even if the law clarifies itself on how Sec.18 should be read through, another issue that can still lead to an abuse of rights of authors and owners while bargaining or negotiations is the lack of clarity as to form a fair value for the 'works' licensed or appropriated. The increasing value gap is a threatening issue in the industry. As per the 2019 report by the IMI,[88] *"recorded music industry describes value gap as the growing mismatch between the value that some digital platforms (notably user upload services) extract from music and the revenue returned to the music community."* About 78% of the revenue of the recorded music industry comes from digital platforms.[89] In order to explain this value gap, the revenue accrued by each stakeholder, especially by the formal partner industries such as Television, Radio Film industry, Live Events and Audio streaming platforms, has to be identified, firstly. The transmission impact of the music industry on its partner industries is summarised in the table below.[90] Revenue of 8.1 times and employment of 25.2 times of the first order impact is estimated to be transmitted.[91]



[88] IMI, "Economic impact of the recorded music industry in India," September 2019, *available at* https://indianmi.org/wp-content/uploads/2019/09/Economic-impact-of-music_Deloitte-IMI_Web.pdf.
[89] *Ibid.*
[90] IMI, "Economic impact of the recorded music industry in India", September 2019.
[91] *Ibid.*

This paper shall analyse in brief the interaction between the partner industries with the recorded music industry and explain the size of transactions that happen between them.

- Film Industry: Presently, approximately 70% of recorded music in India remains rooted in the realm of films, with the remaining 30% predominantly encompassing classical, devotional, folk, and independent genres. This trend is even more pronounced in the southern and eastern states of India, where around 90% of local music originates from film contexts. Despite the Indian Film industry's substantial valuation of INR 19,100 crore, the music industry's worth stands modestly at INR 1,500 crore.[92] The Indian Music Industry (IMI) asserts that these disparities in value arise primarily due to gaps in statutory provisions concerning revenues, along with unnecessary regulatory interventions.
- Radio: Acknowledging the early stage of development of the private radio sector and its limited music accessibility, the Copyright Board of India, in 2010, issued a directive stipulating that radio stations should pay copyright owners a mandatory license fee of 2% based on their net advertising revenues. The order is as follows:[93]

> *"(a) 2% of net advertisement earnings of each FM radio station accruing from the radio business only for that radio station shall be set apart by each complainant for pro rata distribution of compensation to all music providers including the respondent herein in proportion to the music provided by the respective music providers and broadcast by the complainant. Complainant shall be deemed to be a music provider for the music provided by it or received by it free of cost and broadcast. For arriving at "net advertisement earnings", all Government and municipal taxes paid, if any, and commission paid towards the procurement of such advertisements to the extent of 15% of such advertisement earnings shall be excluded;*
>
> ….
>
> *(h) The validity of the licence granted by the Registrar of Copyright shall come to end on 30th September, 2020."*

While conceding the nascence of the private radio industry existed back 12 years back, it is also pertinent to note that the private radio industry has outgrown the earlier situation and has matured in size, coverage and listenership.[94]

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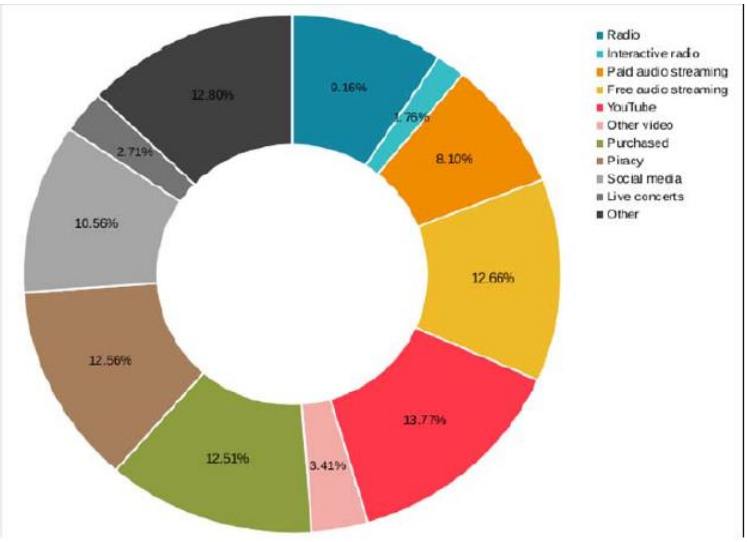
[92] IMI Report, "Vision 2025: The Show Must Continue," *available at* https://indianmi.org/vision-2025-the-show-must-go-on/.
[93] Music Broadcast Pvt. Ltd v. Phonographic Performance Ltd and Ors. Case No. 1 of 2002, decided on 25 August 2010.
[94] Supra *note* 24.

The private Broadcasters have revenues of Rs.3,100 cr. vis-à-vis the recorded music industry at Rs.1,277 cr.[95] This value gap needs to be addressed or else it is absolute injustice to the respective stakeholders. There are various theorems and ways for measuring the fair value of music as far as the radio industry is concerned. Audley and Boyer argue that the better way to measure the fair value of music in radio-play is by observing time shared between music and talk contents, whereby the competitive value of music contents can be deducted or through the revealed willingness to pay for music content.[96] The ratio between talk and music contents would be different on different days and hence it can be measured by the aggregate number of listeners. Then, this has to be compared to the relative expenditure on the two types of content, with the idea that music should have returns that are proportionate to its contributions towards earnings.[97] Economists find that this type of measurement of fair value is very feasible for India, but will require the radio industry to furnish data on the breakdown of expenditures, advertising revenue rates and ratio of music to talk content.[98]

Calculation of fair value through *Shapely value*[99] is yet another method where the surplus from music radio is shared using the Shapley sharing rule which removes the monopoly power held by the copyright holder by equating the payoff to the average value.[100]

The 'exposure and substitution effect' can be identified to draw how much value should be given to a music in radio industry. While "exposure effect" is where radio promotes musical content for listeners, "substitution effect" is where listeners have limited time and budgets, and listening to the radio reduces the sales of music.[101] If there is an exposure effect of radio, then it rate has to be kept lower than that determined through assuming no spillovers.[102]

[95] Supra *note* 24.
[96] Megha Patnaik, "Compulsory Licensing for Radio-play Of Music in India: Recent History and Economic Context," Review *of Economic Research on Copyright Issues,* vol. 17(1), 60-77, (2020).
[97] Ibid.
[98] Supra *note* 28.
[99] Watt, Richard, *Fair copyright remuneration: The case of music radio,* Review of Economic Research on Copyright Issues, 7(2); 21-37, (2010).
[100] Supra *note* 28.
[101] Liebowitz, Stan J., *The elusive symbiosis: The impact of radio on the record industry*, Review of Economic Research on Copyright Issues, 1(1): 93-118, (2004).
[102] Supra *note* 28.



The figure above[103] shows that the average share of total hours spent listening to the radio are lower than those for purchased music, however the same changes when including other options to access music after payment such as live concerts, digital streaming etc. The measure for the exposure effect could be considered only after determining various media, and it is important to note that with the increase in the use of digital platforms, the exposure effect also changes. The legislature needs to identify the fact that, if the 2% revenue sharing system continues like this, the impact of much lower rate for statutory licensing could be so huge that the loss that the Indian music industry is and had been and will be suffering could not be accounted easily. It's high time this system be relooked.

Reports104 already suggest that the stakeholders are tired of the statutory licensing provision under Sec.31 of the Act, due to which musical works and sound recording are purchased especially by digital streaming platforms underpriced or not proportionate to the actual streaming rate. So, to tackle the issue, fair value of work has to be identified through a proper equation or the same has to be given to the hands of the stakeholders to decide as per market demands. The latest report by IMI[105] suggests that,

> *"Let voluntary licensing determine the fair value of music and any specific subsidies that the government wants to provide can be transferred directly when radio companies have lost money in bidding for radio spectrum, instead of subsidizing them at the cost*

[103] Source: Q17 of the IFPI Music Consumer Study, 2019. The figure shows the answers to the question "In a typical week, how many hours do you spend listening to music in the following ways?" Shares are assigned to each medium over the total number of hours for each listener. The sample was for all listeners out of 1357 survey respondents for India who listen to more than an hour of music per week and excluding those who report listening to over 70 hours of music in a week.

[104] Supra *note* 20.

[105] IMI, "Vision 2022, Unlocking Fair Value to Stakeholders to Propel the Recorded Music Industry in India to the Top 10 Music Markets in the World', An initiative by the Indian Music Industry," (2022).

of the recorded music industry."

- Television: According to the 2019 IMI report, musical content constitutes around 5-6% of the total television viewership.[106] This encompasses the audience engagement with music-oriented programs (including those not broadcast on music-specific channels), excluding reality-based shows where music serves as a central theme.[107]
- Music Festivals and Live Music Venues- The revenue share is approximately Rs.1280 crore approximately as of 2019.[108]

Audio streaming platforms- Audio Over-The-Top (OTT) platforms offer a variety of music streaming options to consumers. These platforms function on diverse business models, encompassing ad-supported free models, subscription-based models, hybrid models, and integration with telecommunications providers. Based on an analysis of prominent industry participants, it is estimated that the market size of the audio OTT streaming sector is approximately INR 270 crore.[109] Moreover, these platforms have contributed to the creation of approximately 810 Full-Time Equivalent employment opportunities.[110] Considering the continuous transformation of business and revenue structures within the Indian audio OTT sector, it is more effective to evaluate the impact of music at this juncture by appraising the sector's generated value. This assessment becomes evident through the significant valuations attributed to audio OTT companies. Noteworthy recent dealings, like Jio's procurement of Saavn and Tencent's investment in Gaana, have led to valuations surpassing ten times the companies' revenue.[111] By multiplying the INR 270 crore industry revenue by a factor of ten, one could argue that the industry has potentially generated a value of INR 2,700 crore. As a result, this proposition is put forth as an extra measure to encapsulate the economic impact of music within the audio OTT sector.

iii. Internet Broadcaster as 'broadcasters'?

In 2016 the Department for Promotion of Industry and Internal Trade (DPIIT) had issued a guideline emphasising that application of Sec.31D of the Copyright Act, 1957 (hereinafter 'Act') also extends to 'internet broadcaster' while seeking Statutory License. However, to the

[106] Supra *note* 20.
[107] Supra *note* 20.
[108] Supra *note* 20.
[109] Filings of Saavn and Gaana
[110] https://craft.co/; Deloitte analysis
[111] Deloitte-IMI, "Audio OTT Economy in India – Inflection point," (2019).

contrary, the Bombay High Court in 2017, in *Tips Industries v. Wynk Music Limited & Anr,*[112] held that Sec.31D does not extend to internet broadcasters. Even though, DPIIT had later sought to include the application of Sec.31D to 'each mode of broadcast,' by issuing Draft Copyright (Amendment) Rules, 2019, the same was not reflected in the Copyright Amendment Rules, 2021. However, it is also pertinent to note that rather an amending the Rules, an amendment in the Act is what the situation calls for. If it is assumed that s. 2(dd)[113] read with s. 2(ff)[114] supports the inclusion of "internet broadcasting, then 'any person/ entity (such as Facebook, YouTube, Spotify)' communicating to the general public through Internet can claim protection for reproduction right as a broadcaster under the Act. The existing legal mechanism in India doesn't define 'online streaming' which technically again includes various subsets like audio streaming, video streaming, podcasts etc. Soo the Act has to be revamped first to include 'streaming rights' so as to define the extent of rights that a streaming service has and the ambit of legal relationship between a right holder, streaming platform, intermediaries and the end-user.

The industry is constantly evolving contributing a major share to the economic growth of the country. However, manipulations and malpractices are also increasing with the growth of the industry. The 2012 amendment to the Act does not address the impact of digitization and streaming culture on the continued economic rights for master producers, and whether their justifications still hold valid. This lacunae is unfairly misused in the industry during negotiations and the most affected are the authors who barely receive any royalty as specified under Sec.18.

During one of the interviews with an Executive Member of the board of IPRS, it was revealed that the copyright owners, mostly record labels, are forced to agree with the terms of agreement by the streaming platforms during negotiations regarding assignment/licensing of rights for streaming, primarily because of the sudden boom in digital streaming, especially post Covid-19. When asked about the revenue sharing, IPRS representative conceded that they have no way but to accept the financial statement sheet that they receive from these streaming platforms and divide the revenue among the stakeholders of the work. There is no over-looking

[112] Commercial Suit IP (L) No. 113 of 2018.

[113] Defines "broadcast" which means communication to the public— (i) by any means of wireless diffusion, whether in any one or more of the forms of signs, sounds or visual images; or (ii) by wire, and includes a re-broadcast.

[114] Defines "communication to the public" which means making any work or performance available for being seen or heard or otherwise enjoyed by the public directly or by any means of display or diffusion other than by issuing physical copies of it, whether simultaneously or at places and times chosen individually, regardless of whether any member of the public actually sees, hears or otherwise enjoys the work or performance so made available.

mechanism to draw what really happens during streaming and the actual amount that they receive upon utilization of a musical work or sound recording.

The above are just a few of the issues regarding bargaining power. There are various other issues and nuances in the industry which directly or indirectly affect bargaining and negotiations for utilization of works, but the industry keeps to work on its own and rather prefer less legislative or judicial interference as can be seen from figures above.

Conclusion:

Even though similar situations can be seen in other jurisdictions such as that of the USA and UK, they tackle the same with the principle of 'equity in remuneration' to authors, as they acknowledge the fact that a work becomes 'work' only with the natural thought/idea and labor of the author. Despite vacuum in deciding the contractual relationship and setting out minimum safeguard standards for authors in the US Copyright law, the reason for the smooth functioning of the media-entertainment industry can be drawn from the principle of collective-bargaining being followed in the industry. The media and entertainment industry in the USA functions on the basis of agreements between guilds (those organizations that represent the rights of artists as per the labor code of USA, in new media industries, motion picture, interactive, broadcast and cable industries). These collective bargaining agreements strictly contain provisions that decide the minimum payment rates, provide for residuals, rules relating to credit (attribution), and to some extent - the ability to separate rights, e.g. to reserve certain rights in a work, as well as others.[115] These agreements mention only the minimum rates and leave open the option to negotiate and increase the rates by the authors so that they have an increased control over their intellectual commodity[116] (in the present context, musical works or sound recordings).

Further, to ensure that every worker of the entertainment industry becomes a part of such unions/guilds, the collective bargaining agreements mandate that such worker working for a producer should be or become a member of the respective guild. Also, it is interesting to note the industrial practice where employment agreements or such other agreements related to the creative industry strictly mentions that the respective contracts and its provisions shall be subject to the collective bargaining agreements applicable in such circumstances.[117]

It is suggested that the absence of such a system is a great deterrent in the effective enforcement of the 2012 amendment in India. The failure or lack of effective enforcement of the amendment is causing uproars among the stakeholders, particularly the authors/composers or literary or musical works and sound recordings and one among the major reason is their inability to

[115] Supra *note* 16.
[116] Nikolaus Reber, *Film Copyright, Contracts and Profit Participation* 110 (Wiley_VCH, 2000).
[117] Donald C. Farber, *Entertainment Industry Contracts* Form 7-1 No. 13, (Lexis Nexis, 2018).

negotiate freely as per market demands. Though the objective of the amendment was to ensure the sharing of equal revenues to the authors, they're still blinded from the amount actually accrued through the utilization of the work. Despite the existence of copyright societies (currently only two societies, IPRS and ISRA), and also the absence of one exclusively for the authors, the situation before 2012 has more or less not changed except with regard to the 'value' of revenue accounted.

The existence of collective bargaining in the Indian music industry can definitely help raise the voice of the authors more promptly. For that, more strong unions and associations should step in and integrate either with the copyright societies or with the publishers/record labels or both.

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Empowering SMEs through Utility Patents: A Catalyst for Human Capital Development

Shubhangi Sharma and Jayshree Priya[118]

ABSTRACT

In recent years, Utility patents, commonly referred to as "petty patents" or "utility models", have been a popular and highly acknowledged strategy in small and medium-sized enterprises (SMEs) for contributing to human capital development and serving as an alternative to the patent protection system. SMEs play a very significant role in the economic growth and development of our country and are considered to be one of the mainstays of our flourishing economy, but the sector still needs certain additional safeguards to realize its full potential. The paper exhaustively discusses the issues pertaining to the absence of "petty patents" in India, where SMEs are financially restricted but contain a vast reservoir of grassroots innovations that need to be preserved by a legal framework. The stringent patentability criteria of novelty, non-obviousness, and industrial applicability often preclude inventors of incremental innovations from reaping the rewards of their efforts. The paper makes an effort to explain the role of petty patents in fostering innovation and the acquisition of information and skills. The paper further discusses the significance of petty patents in nurturing human capital within SMEs by incentivizing investment in research and development, which stimulates economic expansion and job creation, further advancing human capital development. The paper further aims to provide insights into the global experiences related to utility patents in different countries where petty creations are provided with legal protection as utility patents. The paper exhaustively discusses the adherence to the TRIPS agreement, which has placed an obligation on developing countries to align their Intellectual Property laws with the international Intellectual Property regime. The paper seeks to outline India's approach in the implementation of the TRIPS Agreement which seeks to balance the need for knowledge dissemination and public access to innovations but delays adherence to other commitments so as to meet the domestic requirements. The paper also scrutinizes Section 3(d) of the Indian

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Patent Act which restricts the grant of patents for mere discoveries or trivial innovations. The stringent provision, designed to prevent the 'evergreening' of patents, could potentially be adapted to encompass utility patents which would not only clarify ambiguities but also promote technological innovations in small-scale industries, rather than restricting patent grants to mechanical devices. Lastly, the authors posit that the adoption of the utility patents model in India could stimulate competition in the global market and invigorate the Indian government's 'Make in India' initiative.

Keywords: Utility Patent, Small and Medium Sized Enterprises, Human Capital Development, Competition, Economy.

Introduction:

In today's dynamic and integrated global economy, Small and Medium-sized Enterprises (SMEs) are recognized as the primary drivers of economic growth, innovation, and human capital development. These companies are usually engines of innovation, ingenuity, and flexibility, frequently offering new products, services, and solutions to the market. Their route, however, is not without hardships, as SMEs are frequently restricted by, financial constraints, and difficulties accessing markets and advanced technologies. In these conditions, where intellectual property and human capital are crucial assets, the strategic intersection of utility patents and human capital development appears as a significant avenue for increasing the competitiveness and long-term viability of SMEs.

The paper attempts to decipher the unintended and magnified negative effects of patents on innovators, with a focus on how patent rules and practices, which are apparently designed to assist Small and Medium-sized Enterprises (SMEs), can inadvertently create burdensome time and financial constraints. While patents might not harm Indian pharmaceuticals, they may hinder the progress of innovative engineering and technology sectors.

Following the judgment of Madras High Court in the case of *Novartis A.G. v. Union of India and Ors.*[119] which curtailed the issuance of patents for mere discoveries or trivial innovations, the world's economic landscape is undergoing a shift and SMEs are playing a pivotal role in driving this change. Their adaptability, agility, and inclination for invention make important contributions to local economies with respect to ‘vocal for local’ and ‘Make in India’ initiatives, creating employment opportunities and encouraging regional industrial growth. Small and medium-sized enterprises (SMEs), which frequently serve as catalysts for new ideas, have an incredible capacity to challenge established norms, paving the way for alternative

[119] Novartis A.G. vs. Union of India, (2013) 6 SCC 1.

methods of problem-solving and market involvement.

Utility patents are at the center of this transformational potential. The utility patent model offers exclusive rights to innovators, safeguarding their novel ideas for a specified period of time. Obtaining utility patents provide an array of advantages for SMEs that extend far beyond legal protection. These advantages include the capacity to gain a competitive advantage in the market, attract investors, and finally position themselves as pioneers in their respective industries in terms of innovation for the purpose of research and development. A number of developing countries have adopted this paradigm, with China providing as an instance of how utility patent implementation has played a crucial role in propelling the country to incredible technological advancements. Nonetheless, international accords like the TRIPS Agreement do not acknowledge the utility patent paradigm.

India can draw inspiration from countries such as China, which are fostering the growth of their SMEs and making technological advances. It is vital to exercise caution before adopting the utility patent model in India to avoid the acceptance of evergreening patent activities leading to 'overuse' of the system, making it hard for SMEs to compete.

Utility Patent Model and India:

In India, a utility patent, also known as "jugaad," is a type of intellectual property protection granted to unique and effective discoveries, processes, tools, manufactured commodities, or material compositions. Utility Models are awarded in numerous nations throughout the world in order to provide affordable and cost-effective access for SMEs into the intellectual system. SMEs employ approximately 59.7 million people in India, propagated among 26.1 million businesses. The SMEs sector is anticipated to be accountable for around 45% of manufacturing production and 40% of overall exports in terms of value.[120]

Despite its economic limits, the SME sector offers a rich pool of indigenous innovation, which must be safeguarded through the legal framework. The strict patentability standards of novelty, non-obviousness, and industrial utility could hinder innovation or minor inventions such as auto stoppers for LPG Gas stoves, Bullet Driven Santi, or Power Saving Technical Pumps. Also, the time required for attaining a patent is very lengthy and expensive in India which costs around Rs. 48, 00 to up to Rs. 1, 92,000.[121]

In India, we need to encourage our innovators and artisans to contribute to the economic growth of the nation and need to assure them that there is a cheaper as well as more viable option for protecting their invention. A simpler technical system than a patent is essential for the SME to

[120] S.S. Rana & Co. Advocates, Issues for Consideration on Utility Model Law, (2011), *available at:* https://ssrana.in/articles/issues-for-consideration-on-utility-models/ (last visited on August 11, 2023).

[121] *Ibid.*

benefit from Intellectual Property, and it is critical for it to get Intellectual Property Rights. The utility patent method is affordable, saves time, doesn't involve substantive examination, and remains valid for 6 to 10 years.[122]

The Indian Patent Act, 1970, Section 3(d), prevents patents from being granted for minor discoveries or innovations. In the case of *Novartis A.G. vs. Union of India*[123], it was established that this stringent provision has been devised with a view to preventing the evergreening of patents as the term "efficacy" is not being defined in the Patent Act; thus, the decision lies at the discretion of the Controller however, the ambit of the provision can be designed in a way to cover utility patents, which also addresses the grey areas, and not restrict the grant of patents to mechanical devices but rather promote technological innovations in small-scale industries. Also, in the case of *Cipla Ltd. v. F. Hoffmann-La Roche Ltd. & Anr.*[124] , it was held that even if an asserted innovation is not a finished product, it would be patentable if it has some commercial feasibility. Thus, rather than the product, the focus is on the real physical material formed, which has the possibility for commercial realization.

Utility patenting appears to be an efficient instrument for protecting such innovations, which can fuel the already growing SME sector and act as a stimulating element for SMEs under the Government of India's 'Make in India'[125] initiative or 'Vocal for Local' as it would immediately assist local market entrepreneurs in entering the arena of innovation, where they might be able to stand up for their novel concept. This will result in international exports of low-creativity products, propelling the economy to a higher level. Overall, given the affordable registration fees and minimum inventiveness required, this would serve as an incentive for them.

Utility Patent Model and Human Capital Development:

In India's efforts to establish itself as a global innovation powerhouse, the utility patent system looks to be an important indicator of human capital growth. Inventors have to contend with the intricacy of patent applications, which necessitates an extensive understanding of their respective fields of specialization. This need fosters skilled human capital by requiring ongoing education, research, and collaboration. By actively participating in the patenting process, SMEs help to develop competence by fostering a culture of constant learning and specialization that extends beyond the boundaries of intellectual property.

In the context of the transfer of knowledge and joint initiatives, the utility patent model and SMEs complement each other. SMEs became significant players in technology-driven

[122] Joseph Aristotle S., S. Shanthakumar, Utility Patent and Micro, Small & Medium Enterprises in India, *Vivekananda Journal of Research* 4-5, (2019).
[123] *Supra* Note 1.
[124] *Cipla Ltd. v. F. Hoffman-La Roche Ltd. & Anr*, RFA (OS) 92/2012.
[125] Intepat IP Services Pvt Ltd, India: Utility Patents & Position in India, *mondaq*, (2017).

industries as they patent their innovations, thus enhancing their appeal to both domestic and foreign investors. The influx of money accelerates the trajectory of human capital development by helping SMEs to expand their teams and skills.

The utility is intrinsically tied to the growth of SMEs and the development of human capital in India. Patent protection empowers SMEs in such a manner, which stimulates innovation, rewards the development of skills, promotes collaborative ventures, and encourages global participation. The subsequent system not only boosts the economy but also acts as the foundation for a skilled and dynamic workforce that thrives on innovations and human capital development.

The Role of SMEs in India:

In India, SMEs are significant generators of both economic growth and technological advancement. They play an important role in the utility patent model and human capital development, affecting the landscape of innovations and nurturing a competent workforce.

SMEs are the primary source of innovation in the utility patent paradigm. This method gives SMEs a tactical advantage by preserving their intellectual property and establishing an innovation-friendly culture by granting them exclusive rights to their ideas. Because of their commitment to research and development, SMEs routinely introduce new products and solutions to the market. The utility patent paradigm encourages these companies to invest in innovation, allowing them to stay ahead of the competition and keep their position. This protection helps SMEs research, adapt, and provide cutting-edge goods and services, pushing India's technological frontiers.

Furthermore, the mutually beneficial interplay between SMEs, the utility patent model, and human capital development must be recognized. As they pursue patenting processes, SMEs engage in a complex process that generates human capital. To create detailed patent applications, SMEs must have an extensive knowledge of technology, which pushes them to build expertise and specialized abilities. This innate hunger for knowledge drives the development of a skilled workforce that not only excels in patenting processes but also promotes a more pervasive learning culture. Thus, SMEs contribute greatly to India's overall human capital development, supporting the country's ambitions to become a worldwide innovation hub.

Using their intellectual property, SMEs can collaborate and transfer technologies under the utility patent paradigm. Utility patents enable cooperation relationships to grow between SMEs, research centers, universities, and larger corporations. These collaborations promote information interchange, cross-sector innovation, and the enhancement of the human capital

ecosystem. Working on projects together exposes SMEs to a diversity of perspectives and fields of knowledge, which accelerates their rate of growth and increases the overall supply of skilled laborers.

The utility patent paradigm increases India's appeal to international investment in the global arena. Utility patent protection indicates a favorable environment for innovation and the enforcement of intellectual property rights. As a result, global investors seeking to profit from India's burgeoning SME market flock to the country. These businesses are funded by foreign investments, but these investments also foster cross-cultural knowledge exchange, thereby improving the country's human capital.

In India, SMEs play an important role in the relationship between the utility patent model and human capital creation. Their innovation, which is protected by patents, has an impact on the technological environment and energizes the country's efforts to develop its people resources. SMEs play a crucial role in India's advancement toward a dynamic, innovation-driven future by stimulating innovation, permitting the development of specialized skills, forging collaborations, and attracting foreign investment.

International Laws and Experiences across the Globe:

The importance of the utility patent model framework was first recognized in Article 1(2) of the Paris Convention in the year 1883, which categorizes utility models as one of the industrial properties. The member countries of the Convention cannot discriminate against a foreign right holder from the benefits of the generally applicable national treatment obligation for utility models and the reciprocal national treatment will also apply to select international principles including the right to priority.[126] However, the Convention does not mention the definition, nature, and scope of the right and protection to the utility patent holder. In addition to this, Article 2 of the TRIPS agreement administered by WTO enables the member countries to comply with the Paris Convention but the agreement does not provide for the establishment of a second-tier patent system or the utility patent model rather leaving it to the member countries to formulate laws related to utility patent model. However, Patent Cooperation Treaty allows international applications for a utility patent in countries that provides protection to the utility patent model.

Many developed and developing countries either have *sui generis* systems or incorporate flexibilities under their patent laws to provide protection to incremental innovations in the form of a utility patent model for a product or device.[127] However, there is no universal consensus

[126] Sajid Sheikh, "Exploring the Possibility of Utility Model Protection in India", *Scholars International Journal of Law, Crime and Justice* 53-60 (2022).
[127] *Ibid.*

on the term 'utility model', due to which it is called by different names in different countries example in Australian law it is termed as 'innovation patents'.

The utility patent model is also alternatively referred to as 'utility innovations' in Malaysia or 'utility certificate' in France.[128] The current rationale with regard to the utility patent model is that it has proven to be beneficial in advancing technological breakthroughs and in promoting research and development, especially in developing countries where major technological breakthroughs and minor innovations emanate from SMEs. SMEs play a very significant role in the economic development of the country and are considered to be one of the mainstays of the flourishing economy, especially in developing countries. The stringent patentability criteria often prevent inventors of incremental innovations from reaping the benefits of their hard work, which prevents the further growth of their business. Utility patent protection helps small-scale innovators to stay longer in business by protecting their incremental innovations which further promotes research and development thus enhancing the level of innovations.

The utility patent model has successfully been implemented in developed as well as in developing countries. Germany is considered to have one of the oldest and the mother utility patent model laws, the country has been successful in curing the deficiencies of the patent system and in providing cost-efficient utility patent protection within its utility model legal framework.[129] Since the introduction of the utility patent model, Germany has made tremendous growth in technological innovations with 85% of applications filed by domestic small-scale innovators[130], thus encouraging the innovators to protect their utility-oriented inventions, especially SMEs.

Drawing inspiration from Germany, Japan adopted separate legislation on utility patent protection and has been successful in promoting domestic, industrial, and technical development. The system was introduced to "catch up" with the Western standard of technological development and in enhancing its research and development activities.[131] The utility model system in Japan has not only played a very important role in attaining high technological and economic upgradation but also in promoting further innovative activities and in wealth creation.

Today, Japan has become one of the major technology exporters to the USA[132] and has not

[128]Uma Suthersanen, "Utility Models: Do They Really Serve National Innovation Strategies?" *SSRN* (2018).
[129] Dr. K.S. Kardam, "Utility Model-A Tool for Economic and Technological Development: A Case Study of Japan", available at: https://www.ipindia.gov.in/writereaddata/images/pdf/FinalReport_April2007.pdf (last visited on August 11, 2023).
[130] *Ibid.*
[131] *Ibid.*
[132] *Ibid.*

only successfully exploited the utility patent model to enhance its indigenous minor innovations but also amended the utility patent laws to suit its higher innovative climate.[133] China is another prime example of a developing country that has been successfully exploiting the utility model for promoting technological upgradation like Japan. China has utility patent protection within its patent law and there is no separate legislation to protect incremental or minor innovations. The utility patent protection has helped the domestic industry of the country in protecting incremental innovations and in achieving technological advancements which further promotes research and development.

It has been observed that once industries of a particular country reach higher levels of innovative capacities the disadvantages of the utility patent model outweigh the advantages of the model as we can understand from the experiences of developed countries like Australia. There is a concern that dominant market players may use the utility patent system to avoid the strict patentability criteria and abuse the system in several ways to that make it hard for SMEs to compete.

Economic Partnership Agreements and International Investment Agreements:

Despite, the reluctance of international laws to address the utility patent model, there are provisions contained in FTAs and trade agreements on utility patent protection. In the year 2008, the European Union in its Economic Partnership Agreement (EPA) with Caribbean states called EU-CORIFORUM contains provisions on utility patent protection. Article 148 of the agreement lays out the requirements for utility patent protection, however, the introduction of a utility patent model remains optional to countries.[134] Further, Article 109, Article 110, and Article 121 of the Japan-Indonesia EPA address utility patent models.[135] However, the countries should be cautious in accepting the obligations contained in international agreements and should carefully analyze the impact of such provisions on the policy space. The rights of utility patent holders are also increasingly recognized in international investment agreements (IIA).

Curing Indian Patent Laws to Incorporate Utility Patent Model:

In India, there is a word for incremental innovations called 'Jugaad' which are innovations done by amateur inventors by using ordinary resources.[136] Most of the SMEs in India rely on the 'Jugaad' technique to get their work done effectively and in an efficient manner. However,

[133] *Supra* note 11 at 11.
[134] Henning Grosse Ruse-Khan, "The International Legal Framework for the Protection of Utility Models", *SSRN* (2012).
[135] *Ibid.*
[136] Joseph Aristotle. S. and Dr. S. Shanthakumar, "Significance of Utility Patents in the Economic Development of India", 1 *GLS Law Journals* 42-48 (2019).

there is no provision related to the utility patent model in India despite the fact that SMEs play a pivotal role in the economic growth and development of the country. SMEs in India often lack funds for paying hefty patent fees and are vulnerable to unfair competition and copying by foreign competitors.

The unavailability of utility patent protection robs SMEs of the vital time required to recoup research and development costs which are reflected in India's 42nd rank out of 55 countries in the International Intellectual Property Index. The solution is to adopt the utility model that helps developing nations advance their technological innovations by encouraging local innovations by SMEs. India can draw inspiration from countries like Japan and China to upgrade technological and economic innovations by adopting the utility patent system which would further strengthen the budding SMEs and stimulate competition in the global market at the same time invigorate its 'Make in India' initiative. Utility patent protection is undoubtedly an effective remedy in nurturing human capital within SMEs by incentivizing investment in research and development, which stimulates economic expansion and job creation, further advancing human capital development.

TRIPS agreement administered by WTO placed an obligation on developing countries to align their intellectual property laws in accordance with international intellectual property regimes. India amended its patent laws in order to fulfill its commitment to the TRIPS agreement, which seeks to balance the need for knowledge dissemination and public access to innovations but delays adherence to other commitments so as to meet domestic requirements. At present patent laws in India protects the inventions provided they meet the higher threshold of novelty, inventive step, and industrial applicability under the Indian Patent Act. Section 3(d) of the Indian Patent Act restricts the grant of patents for mere discoveries or trivial innovations.[137] The stringent provision was designed to prevent the 'evergreening' of patents, however, the patent laws can be harmonized and synchronized to encompass utility patents by either incorporating a separate chapter on the utility model or by incorporating flexibilities under the patent laws to provide protection to minor innovations in the form of a utility patent model for a product or device which would not only clarify ambiguities but also promote technological innovations in small-scale industries, rather than restricting only patent grants to mechanical devices.

Points to be considered while introducing the utility patent model in India:

- **Subject Matter of the utility model:** India can draw inspiration from countries like Germany, Japan, and China in restricting the subject matter of the utility patent model

[137] Indian Patent Act, 1970.

to devices, articles, structures, or combinations of the product and excluding the protection of processes under the model.

- **Novelty and inventiveness criteria:** As regards to the novelty criteria under the Indian Patent laws should be continued with prior public knowledge to be restricted within the territory of India and the stringent criteria of inventiveness or inventive step should be lowered to protect minor innovations so that SMEs are able to exploit the system for further technological advancements.[138]
- **Grace Period to file utility patent application:** The grace period provided under the patent laws should be continued for the utility patent model for domestic innovators.
- **Substantive non-examination:** The grant of the utility patent should be based on substantive non-examination of inventive steps and no pre-grant opposition for speedier and time-efficient registration thereby encouraging the domestic innovators to file utility applications.
- **Term of protection for utility patent:** The protection for utility patents should be around six years thus prohibiting the prolonged monopoly for such models.
- **Conversion of patent application and no dual protection:** The provisions should also be incorporated to allow the applicant to convert its patent application to a utility patent application if the patent application is rejected on grounds of inventiveness. However, dual protection of patent and utility patent should not be granted as it will diminish the importance of the utility model. While considering the transmutation of the patent to a utility patent in India several factors like pharmaceutical evergreening and welfare of the people should be taken into consideration.
- **Awarding compensation in cases of infringement:** The system can further be strengthened by providing monetary compensation in cases of infringement as the legal protection accorded to the utility model is not as strong as that of the patent at the same efforts should also be taken to create awareness of the utility patent regime.

The Indian government has taken several initiatives to strengthen its Intellectual property protection with an aim to maximize the incentives for the protection of the intellectual property of different types of innovators. Apart from the intellectual property laws related to copyright, patent, and trademark several other legislations have been enacted such as the Plant Variety Protection and Farmers Rights Act, Geographical Indications of Goods (Registration and Protection) Act, and have made efforts in streamlining its intellectual property laws. Recently,

[138] *Supra* note 12.

a report was prepared by Economic Advisory Council to the Prime Minister (EAC-PM) titled *"Why India Needs to Urgently Invest in Its Patent Ecosystem"* recommended granting protection to incremental innovations through the utility model of patents.[139] The report also talks about the role of the utility patent model in pushing innovation done in Atal Tinkering Labs and Atal Incubation Centers under the Atal Innovation Mission as well as rewarding incremental innovations. The report states:

"India is already a hub of start-ups and small-scale enterprises, and the utility patent model will promote incremental innovation in this category. Thus, there is a case for bringing in a utility patent model in India- which should be much cheaper than patents, provided at a much faster pace, and has less stringent criteria for patentability."[140]

The report further states that the utility model of the patent is different from regular patents and does not dilute the rigor of the existing patent system. However, the report mentions that the utility model of the patent could only work after additional manpower is put in office so that the introduction of the model does not strain the existing system. However, there is still no law in place for the protection of the utility patent model. However, before introducing the model in India, there is a need to address the issues of lack of fixed timelines for various stages of the process. In addition to this consideration must be given to making improvements in filing and IT systems and outsourcing administrative manpower which can fasten the process.

Conclusion:

The concept of the Utility patent model provides a cost-effective alternative to developing countries where the capacity to conduct innovative research is weak. In developing countries, patent protection tends to be useful only after an increase in indigenous-level innovative capacity which can be achieved through utility patent protection depending upon the local needs of that particular country. Utility patent protection may also encourage small businesses to operate in different markets and reduce the problem of duplication. However, there is a concern that utility patent protection can stifle competition, especially in developed countries. As large market players in developed countries often use the utility model to get their products patented by circumventing the stringent criteria under the patent laws, thus leading to overuse of the system which can create a competition barrier, especially for SMEs, and lead to abusive behaviour by these market players. Developing countries like India should be cautious in broadening the concept of patent laws. The countries should tailor the utility patent regime

[139] Sanjeev Sanyal and Aakansha Arora, "Why India Needs to Urgently Invest in its Patent Ecosystem", *EAC-PM/WP/1/2022*, available at: https://www.ies.gov.in/pdfs/why-India-needs-to-urgently-invest-in-its-IPR-ecosystem-16th-Aug-2022.pdf (last visited on August 11, 2023).
[140] *Ibid.*

according to the national innovative capacity and economic environment, once the threshold level of the innovative capacity has been reached that is to say the national economy and industries have reached a higher level of technological capacity it is not advantageous to continue with utility patent protection as it increases unnecessary noise and leads to patent thickets.

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Creating Laws for the Digital Age: the Legal Landscape to Navigate the Generative AI

Prakhar Suryawanshi[141]

ABSTRACT

There has been a reform in the production of content by generative AI, which has amazing skills to produce text as well as images. But as these AI tools proliferate, legal issues including intellectual property (IP) infringement have come to light. This article examines the legal sphere around generative AI, including how it interacts with intellectual property law, recent court cases, and the requirement for new legislation to handle the particular problems of the digital age. Concerns about rights of use and infringement are brought up by the meeting point of generative AI and intellectual property law. Massive volumes of data are used by generative AI platforms to train models and generate new material, however using works that are protected by copyright, patents, or trademarks in the training data has legal issues. Recent legal disputes, such as Andersen v. Stability AI et al. and Getty's lawsuit against Stable Diffusion, show the difficulties in assessing the legal status of works produced by generative AI platforms. In many circumstances, the interpretation of the fair use doctrine, which permits restricted use of copyrighted material without authorization, is crucial. The treatment of AI-generated works is also influenced by non-technological instances like the ongoing case against the Andy Warhol Foundation, as well as by past legal conflicts involving technology and copyright law. To handle the difficulties of AI-generated content and give clarity to businesses and content providers, new regulations and guidelines must be developed. With the advent of AI, trademark law is facing new difficulties. The responsibility of AI platforms due to the use of data analysis in promoting and advertising brands leaves a wide scope for development of law and the protection for other users' example, Lush v. Amazon case. To determine an AI-generated work's legal status, including issues with authorship, copyright, and credit attribution, precise specifications are needed. In order to properly attribute, licence, and compensate content producers, copyright standards must be updated to accommodate AI-generated work. To define usage constraints and the ever changing nature of AI-generated work a new realm of "Fair-use idea" should be brought. Frameworks for licensing and revenue-sharing should be set up to enable just recompense for the usage of intellectual items. The origin and transparency of content produced by AI are crucial. AI developers should keep thorough records of all training data utilized, ensuring legal origin is transparent and verifiable. To avoid abuse and ensure ethical content creation, ethical norms for AI developers and enterprises should be set. Given that generative AI transcends national boundaries, international cooperation and legal harmonization are essential. Collaboration can create uniform legal frameworks that handle global issues and provide businesses and content creators clarity. To protect themselves and uphold intellectual property rights, firms and content producers must take proactive steps including legally procuring training data, keeping an eye out for violations, and including safeguards in contracts. Businesses and content producers can profit from generative AI while respecting intellectual property rights and adhering to changing legal requirements by properly navigating the legal environment and developing new laws and standards.

[141] B.A.LL.B. N.L.U., Bhopal.

Keywords: Artificial Intelligence, Digital age, Trademark, Intellectual Property, Infringement.

1. Introduction:

In an era marked by unprecedented advancements in technology, the realm of content creation has been forever transformed by the advent of generative artificial intelligence (AI). Capable of producing intricate text and captivating images, generative AI has unleashed a new wave of creative possibilities. However, with the proliferation of these powerful AI tools, a host of legal intricacies and challenges have emerged, particularly in the domain of intellectual property (IP) infringement. This article embarks on a comprehensive exploration of the legal landscape encompassing generative AI, shedding light on its intricate interactions with intellectual property law, analyzing recent court cases, and advocating for the formulation of novel legislative measures to effectively address the unique complexities of the digital age.

1.1 Background and Significance:

Generative AI has catalyzed a paradigm shift in content production, demonstrating remarkable capabilities that blur the boundaries between human creativity and computational prowess. The astounding potential of AI to autonomously generate text and images has ignited a revolution across industries, from literature and art to marketing and branding. Yet, as these AI tools traverse uncharted territory, they have unearthed a multitude of legal concerns that necessitate immediate attention.

The collision of generative AI and intellectual property law has surfaced a host of intricate issues that pertain to the rights of content usage and potential infringement. At the crux of this intersection lies a critical challenge: the extensive utilization of vast datasets by generative AI platforms to train their models and create original content. A pressing concern arises when these datasets incorporate materials safeguarded by copyright, patents, or trademarks, raising complex questions regarding the legality of such usage.

Recent high-profile legal disputes, including the notable case of Andersen v. Stability AI et al. and the contentious lawsuit filed by Getty against Stable Diffusion, underscore the inherent difficulties in navigating the legal dimensions of content generated by AI platforms. These cases reveal the need for precise interpretation and application of legal doctrines, particularly the pivotal fair use doctrine, which governs the authorized utilization of copyrighted material without explicit consent.

In light of these challenges, the article delves into the dynamic landscape of intellectual property law, addressing both the technological and non-technological influences that shape the treatment of AI-generated works. Notably, the ongoing legal proceedings against the Andy Warhol Foundation and the echoes of past conflicts involving technology and copyright law

further emphasize the multifaceted nature of this evolving legal domain.

Recognizing the pressing need for clarity and guidance, the article underscores the urgency of formulating new regulations and guidelines to facilitate the seamless integration of generative AI while safeguarding the rights of content creators and businesses. As the boundaries of AI-generated creativity continue to expand, the delicate balance between innovation and legal compliance becomes increasingly intricate.

The article in this context looks at the expanding issues with trademark law brought on by AI, especially in the areas of branding, promotion, and advertising. Landmark cases like Lush v. Amazon, which highlight the importance of developing complex legal frameworks to address the changing landscape of trademark protection in the digital age, serve as examples of the emerging complexities in this area.

The article emphasizes the critical importance of defining the legal status of AI-generated works and addressing issues of authorship, copyright, and credit attribution as we travel through the intersection of generative AI and intellectual property law. The evolution of copyright standards to encompass the realm of AI-generated content is a central focal point, necessitating innovative approaches such as the proposed "Fair-use idea" framework to adapt to the ever-changing nature of AI creations.

In an age where transparency and origin are paramount, the article underscores the ethical imperative for AI developers to meticulously document their training data sources, ensuring verifiable legal origins. The establishment of ethical norms for AI developers and enterprises is seen as pivotal in maintaining the integrity of content creation while fostering a culture of responsible and sustainable AI usage.

Furthermore, recognizing the global reach of generative AI and its transcendent impact on national boundaries, the article delves into the significance of international cooperation and legal harmonization. Collaborative efforts are posited as a means to formulate cohesive legal frameworks that address the cross-border challenges of the digital era, ultimately providing clarity to businesses and content creators.

As the article unfolds, it becomes evident that proactive measures are indispensable for safeguarding intellectual property rights in the face of burgeoning generative AI technologies. By legally procuring training data, vigilantly monitoring potential violations, and incorporating safeguards within contractual agreements, firms and content producers can navigate the dynamic legal landscape while embracing the transformative potential of generative AI.

In conclusion, this article serves as an illuminating exploration of the intricate legal domain surrounding generative AI and its interplay with intellectual property law. Through the analysis

of recent court cases, the proposal of innovative legal frameworks, and the advocacy for ethical norms, the article endeavors to guide stakeholders toward a harmonious coexistence between AI innovation and the preservation of intellectual property rights in the digital age.

2. Generative A.I. and Intellectual Property:

The advent of generative artificial intelligence (AI), which has astounding capabilities for producing both textual and visual content, has ushered in a revolutionary era in content creation. However, as these AI tools spread, they have brought up serious legal issues, particularly in regards to intellectual property (IP) infringement. This section explores the complex relationship between generative AI and intellectual property law, illuminating the challenges of data use, current legal controversies, and the application of the fair use doctrine.

2.1 Data Utilization and IP Infringement:

Massive amounts of data are used by generative AI platforms to train their models and create creative content. Inadvertently incorporating copyrighted, patented, or trademarked materials into the training datasets, however, can result in legal issues. The fundamental concern is whether using protected materials for training purposes is illegal.

As AI-generated content evolves, it becomes more difficult to distinguish between original work and derivative work because of the fusion of various data sources. An extensive examination of the legal framework within which generative AI operates is necessary due to the intersection of data use and intellectual property rights.

2.2 Recent Legal Disputes: Andersen v. Stability AI et al. and Getty's Lawsuit against Stable Diffusion:

Recent court cases shed important light on the complex legal issues that generative AI raises. Both the Getty lawsuit against Stable Diffusion and the Andersen v. Stability AI et al. case highlight the challenges in determining the legal standing of works produced by AI platforms. These disputes show how important it is to have a thorough understanding of the creative process and the implications of possible infringement, particularly when AI-generated content resembles already-existing works that are protected by copyright.

The court's interpretations in these cases set the stage for upcoming legal rulings and policy considerations by demonstrating how the jurisprudence surrounding generative AI is developing.

2.3 The Fair Use Doctrine and its Application:

The fair use doctrine, a cornerstone of copyright law, allows for the limited unintentional use of copyrighted material in certain situations. Applying the fair use doctrine becomes crucial in

the context of generative AI when deciding whether AI-generated content violates pre-existing IP rights. This analysis is made more difficult by the intricate interplay between transformative use, commercial intent, and the potential impact on the market for the original work.

The fair use doctrine's interpretation in the context of AI-generated content necessitates a delicate balancing act between encouraging innovation and safeguarding creators' rights. As generative AI continues to produce content that draws from existing works, courts and legal scholars grapple with the challenge of defining the boundaries of fair use in this novel landscape.

In sum, the amalgamation of generative AI and intellectual property law engenders a dynamic and multifaceted legal sphere. The interplay between data utilization, recent legal disputes, and the application of the fair use doctrine underscore the pressing need for comprehensive guidelines and legislative measures to effectively navigate the complexities of the digital age. For stakeholders in numerous sectors, a thorough understanding of these complicated legal intricacies is now essential due to the development of technology and creativity. This makes it possible for them to strike a balance between promoting innovation and defending intellectual property rights.

3. Authorship, Copyright, and Attribution:

With the introduction of generative artificial intelligence (AI), exhibiting astonishing prowess, the field of content production has experienced a dramatic revolution. Nevertheless, a number of technological developments, particularly in those related to authorship, copyright, and recognition, have contributed to this complex legal environment. This section of the research paper delves into the complex area of generative AI-generated works, exploring issues related to author identification, the evolving aspects of copyright laws in the AI context, and proposing an original framework called the "Fair-Use Idea" to address these complex legal intricacies.

3.1 Challenges in Determining Authorship of AI-Generated Works:

A stimulating conversation on the idea of authorship has been ignited by the development of generative AI's creative powers. The collaborative interaction between AI algorithms and human contributors forces a fundamental re-examination of conventional notions of creative ownership, which are intricately linked to human initiative. When AI significantly influences the creative endeavor, the issue of legitimate authorship emerges.

The complexities are magnified in cases where AI draws inspiration from copyrighted works in its training data, blurring the line between originality and derivative creation. The intricate interplay between human input and algorithmic generation necessitates a re-evaluation of

conventional authorship paradigms, prompting the exploration of innovative legal frameworks to address this paradigm shift.

3.2 Evolving Copyright Standards for AI-Generated Content:

The proliferation of generative AI has exposed the limitations of existing copyright standards in accommodating this novel form of creative production. The traditional delineation between human-authored and AI-generated content raises pertinent questions about the extension of copyright protection to AI creations.

As AI-generated works begin to permeate various industries, including art, literature, and music, the evolution of copyright standards becomes imperative. Striking a balance between incentivizing innovation and safeguarding original creators' rights entails revisiting the principles of originality, creativity, and substantial human contribution within the context of AI-generated content. Addressing these evolving dynamics calls for a nuanced re-examination of copyright laws, ensuring their adaptability to the transformative landscape of generative AI.

3.3 Introducing the "Fair-Use Idea" Framework:

A cornerstone of copyright law is the "Fair Use" doctrine, which restricts the use of content protected by copyright for artistic, non-commercial reasons. But this notion is difficult to apply to content created by AI, thus we need to take a different approach. The "Fair-Use Idea" framework is a cutting-edge approach developed to address the dynamic nature of AI inventions.

This paradigm shift is at the cutting edge of innovation and seeks to restructure the idea of fair use by introducing a blended strategy that considers both the transformational nature of utilisation and the basic "idea" guiding the creative process. The "Fair-Use Idea" approach aims to provide a more equitable and flexible system for assessing fair use in the field of AI-generated content by identifying the fundamental creative concept embedded inside AI-generated works. This approach might reduce future conflicts, improve the clarity of the usage guidelines, and offer a way to protect both the rights of the original inventors and the improvements in AI technology.

The need for a thorough re-evaluation of current legal frameworks is underscored by the junction between generative AI and the intricate legal difficulties of authorship, copyright, and credit. Challenges including the complexity of author identification, modifications to copyright laws, and the introduction of fresh ideas like the "Fair-Use Idea" framework are shaping the growth of intellectual property law in the digital age. The legal system must try to strike a careful balance between encouraging innovation and protecting the rights of creators and content stakeholders as generative AI continues to redefine creative boundaries.

4. Trademark Law in the Age of AI:

Generative artificial intelligence (AI) has significantly changed the fields of text and picture generation, ushering in a new era of content creation. New legal issues have arisen as a result of this development, particularly in the area of trademark law. The impact of AI on trademark promotion and advertising is examined in this section of the study paper, which digs into the intricate interplay between generative AI and trademark law. Additionally, it examines the well-known Lush v. Amazon lawsuit as a case study in trademark protection and discusses tactical strategies for negotiating the changing legal landscape of trademarks in the age of artificial intelligence.

4.1 AI's Impact on Trademark Promotion and Advertising:

The use of generative AI's data analysis and content generating tools will significantly affect the marketing and advertising of trademarks. The application of AI to brand advertising opens up new possibilities and complexity. Effective consumer behaviour analysis is possible with the use of AI-powered algorithms, enabling personalized advertising and improved brand engagement. However, this AI-driven marketing strategy highlights the need for robust legal safeguards and sparks worries about potential trademark infringements.

The incorporation of AI in marketing raises the necessity of trademark protection because AI-generated content has the potential to accidentally infringe upon already-existing trademarks or reduce their distinctiveness. This calls for a review of how trademark law adapts to the evolving field of AI-driven branding and marketing strategies.

4.2 Lush v. Amazon: A Case Study in Trademark Protection

A compelling case study that highlights the challenges of trademark protection in the age of AI is the dispute between Lush and Amazon. Lush Cosmetics contested Amazon's use of its trademarked name in search results for comparable goods in this well-publicized legal dispute. The incident highlights the difficulties in policing AI-generated content and how it may obfuscate the distinction between authorised brand promotion and infringement.

The case of Lush v. Amazon highlights the need for an adaptive approach to trademark enforcement that can distinguish between legitimate brand engagement and potential violations made possible by AI algorithms. The case highlights the evolving role of AI in defining the parameters of trademark protection and provides insightful information about the difficulties of trademark protection in the digital age.

4.3 Navigating the Legal Landscape for Trademarks in the AI Era

Trademark law is faced with novel and uncharted challenges as generative AI continues to change the way content is created and promoted. Stakeholders must proactively adapt their strategies to address the particular concerns posed by AI-generated content in order to

successfully navigate this changing legal environment.

The use of proactive trademark monitoring, AI-driven brand surveillance tools, and cutting-edge image and text recognition technologies are all strategies for trademarks in the AI era. Collaboration between brand owners, legal professionals, and AI developers can also result in the development of strong frameworks that uphold trademark rights while embracing AI's innovative potential.

Furthermore, international cooperation and the harmonisation of trademark laws are required due to the global reach of AI-generated content. In the era of artificial intelligence, international cooperation can create uniform standards that deal with international trademark disputes and offer a consistent legal framework for companies and content producers.

In conclusion, the advent of generative AI has introduced profound shifts in trademark law and practice. AI's impact on trademark promotion, illustrated by the Lush v. Amazon case, necessitates a reevaluation of enforcement strategies and the formulation of adaptive legal approaches. By navigating the legal landscape of trademarks in the AI era, businesses and content creators can harness the transformative potential of AI while ensuring the protection of their brand identities and trademarks in an increasingly AI-driven world.

5. Ethical Considerations and Transparency

The remarkable advancement of generative artificial intelligence (AI) in content creation has unveiled a realm of unprecedented creative possibilities. However, amidst the proliferation of AI tools, an imperative facet that emerges is the ethical dimension surrounding transparency, accountability, and the responsible utilization of AI-generated content. This section of the research paper delves into the ethical considerations underpinning AI-generated works, examining the significance of recording training data for transparency and verification, the need to establish ethical norms for AI developers and enterprises, and the imperative of ensuring ethical content creation while mitigating the potential for misuse and abuse.

5.1 Recording Training Data for Transparency and Verification

As generative AI algorithms draw from vast datasets to craft their creations, ensuring the transparency and verifiability of the content's origin becomes a paramount ethical concern. The training data used by AI developers must be thoroughly documented, including both the sources and the procedures used. A clear and accountable trail is made possible by this thorough recordkeeping, enabling stakeholders to determine where AI-generated content originated.

It is not only morally required, but also legally necessary, to provide transparent data documentation in order to confirm the accuracy of the content and head off potential IP infringement claims. Developers of AI contribute to the overarching objective of upholding

moral standards in the production of AI-generated content by creating an auditable record of training data.

5.2 Establishing Ethical Norms for AI Developers and Enterprises

Beyond technical considerations, the ethical implications of generative AI also affect the actions and choices made by AI developers and businesses. In order to address this, the creation of ethical standards plays a crucial role in directing the ethical development and application of AI technology. As a framework for navigating the complex landscape of content generation, ethical norms for AI developers and businesses encourage adherence to the values of integrity, fairness, and accountability.

A collaborative effort involving interdisciplinary work from legal experts, AI practitioners, and ethicists is required to develop ethical standards. As a result, AI-generated content is guaranteed to be imbued with a sense of responsibility and purpose, upholding ethical principles that go beyond technological innovation.

5.3 Ensuring Ethical Content Creation and Mitigating Abuse

While generative AI encourages innovation and creativity, it also has the potential to be abused, so precautions must be taken to ensure that only morally acceptable content is produced. To avoid unintended consequences, protection against the dissemination of harmful, offensive, or deceptive content is essential. A proactive analysis of AI-generated output is required for the creation of ethical content in order to spot and correct any potential ethical lapses.

To mitigate the risk of abuse, a combination of human oversight and algorithmic monitoring is crucial. Implementing content review mechanisms and ethical guidelines within AI platforms enables real-time assessment of generated material, striking a balance between automation and ethical responsibility.

In conclusion, the exponential growth of generative AI-generated content is accompanied by profound ethical considerations. The transparency of training data, the establishment of ethical norms, and vigilant content creation practices collectively pave the way for responsible AI innovation. By prioritizing ethical considerations and embedding transparency within AI development, stakeholders can navigate the complex intersection of technology and ethics, ensuring that the potential of AI is harnessed for positive and responsible outcomes in the ever-evolving landscape of content creation.

6. International Cooperation and Legal Harmonization

The transformative impact of generative artificial intelligence (AI) on content production has transcended geographical boundaries, necessitating a reevaluation of traditional legal frameworks. This section of the research paper delves into the critical domain of international

cooperation and legal harmonization in the context of generative AI, exploring the challenges posed by cross-border implementation, collaborative approaches to developing uniform legal frameworks, and the delicate task of striking a balance between global issues and local intellectual property laws.

6.1 Challenges of Cross-Border Generative AI Implementation

Generative AI's borderless nature introduces a host of challenges when it comes to implementation across multiple jurisdictions. The cross-border utilization of AI-generated content exacerbates issues of intellectual property infringement and regulatory disparities. Variations in copyright, patent, and trademark laws between countries create a complex legal landscape that demands harmonization and coordination.

To effectively apply generative AI across international borders, solutions that take into account various legal constraints and the potential for jurisdictional conflicts are required. In order to overcome these obstacles, a cooperative effort involving international stakeholders, legal experts, and politicians is necessary. These regulations must be established in a way that takes into consideration the universal character of AI-generated material.

6.2 Collaborative Approaches to Develop Uniform Legal Frameworks

The challenges posed by the global impact of cross-border generative AI have spurred collaborative endeavors aimed at establishing consistent legal frameworks. International cooperation becomes essential in aligning legal standards that govern the creation, utilization, and safeguarding of AI-generated content. Collaborative platforms, such as intergovernmental organizations and industry consortia, offer spaces where stakeholders can share insights, best practices, and policy suggestions.

A pivotal aspect of these collaborative efforts involves the creation of model laws or comprehensive guidelines. These resources can serve as a reference for countries seeking to adapt their legal systems to the AI landscape. Such initiatives not only streamline the implementation of cross-border AI but also foster innovation by facilitating the exchange of knowledge and ideas across diverse legal jurisdictions.

6.3 Balancing Global Issues and Local Intellectual Property Laws

It is crucial to strike a balance between the need for international cooperation and legal harmonisation and the preservation of local intellectual property laws and cultural sensitivity. Even if a single legal system has advantages like clarity and consistency, it must also respect the uniqueness of each nation's legal tradition and cultural character.

Recognising the necessity of adaptation within international legal norms is crucial because it allows nations to customise their laws to their unique situations. A framework that promotes

international collaboration while simultaneously defending the distinctive interests inherent in various legal and cultural settings might be formed through harmonisation activities.

7. Strategies for Businesses and Content Producers

Businesses and content producers need to take a proactive stance in response to the growth of generative AI technology in order to successfully negotiate the shifting legal landscape. This section explores proactive measures to protect intellectual property (IP) in the context of generative AI. These measures include employing risk mitigation techniques, using contractual agreements, and obtaining training data in an ethical manner.

7.1 Proactive Steps for IP Protection in Generative AI

A proactive strategy to protecting intellectual property rights is essential for businesses and content providers given the increase of AI-driven content generation. This necessitates a careful assessment of present IP holdings and the creation of strategies that work with the capabilities and limitations of generative AI technology.

Internal policies that are strict, like copyright registrations and patent filings, can support legal claims and deter possible infringers. Businesses should encourage interdisciplinary cooperation between legal teams and AI developers in order to guarantee that IP issues are incorporated into the AI development process.

7.2 Legal Procurement of Training Data and Risk Mitigation

The legal procurement of training data is an essential step in lowering the dangers of IP violation in generative AI. The data used to train AI models must be compliant with copyright, patent, and trademark laws, so content creators must take care to obtain it from reputable and authorised sources.

Integrating due diligence tools like thorough rights evaluations and licencing agreements can give IP protection a strong foundation. Businesses can reduce the likelihood of legal disputes resulting from unauthorised data usage by following these procedures.

7.3 Safeguarding Intellectual Property through Contractual Agreements

The rights, duties, and obligations of parties involved in the creation of AI-generated content are defined in large part by contractual agreements. AI developers, content producers, and other pertinent parties establish a framework for IP ownership, usage, and revenue-sharing through clear and comprehensive agreements.

These agreements ought to specify who owns AI-generated content, what uses are permitted, and how to handle situations where intellectual property rights might be violated. Businesses and content creators can protect their intellectual property interests and lessen the possibility

of legal disputes resulting from murky or contested ownership claims by creating a legally binding framework.

In conclusion, businesses and content creators need to take a strategic and cooperative approach in light of the interplay between generative AI and intellectual property law. A solid legal foundation that enables stakeholders to tap into the innovative potential of generative AI while ensuring the preservation of their intellectual property rights is made up of proactive IP protection measures, legal training data acquisition, and clearly defined contractual agreements. Additionally, pursuing international collaboration and legal harmonisation offers a way to address the global issues brought on by AI-generated content while still respecting the various legal and cultural environments found in various jurisdictions.

8. Future Directions: Developing Laws and Standards

A new era of content creation has arrived thanks to the quick development of generative artificial intelligence (AI), but this development also brings with it a number of legal issues. In response to the proliferation of AI-generated content, this section of the research paper explores the future directions of legal frameworks. In order to do this, it looks at the necessity for specific law, the development of comprehensive rules, and the challenging task of juggling the promotion of innovation with the protection of IP rights in the digital age.

8.1 The Need for Tailored Legislation Addressing AI-Generated Content

As generative AI becomes an essential tool in content production, the traditional constraints of intellectual property law are being put under increasing strain. It is necessary to have a particular legal framework that navigates the complex questions of authorship, ownership, and usage while also taking into account the dynamic character of AI-generated content.

The creation of AI-focused legal legislation and regulations is essential to provide stakeholders in the creative ecosystem with certainty. By recognising the special difficulties presented by generative AI, legislators may develop frameworks that strike a harmonic balance between fostering innovation and providing robust IP protection.

8.2 Designing Comprehensive Guidelines for AI-Generated Works

A comprehensive regulatory framework that addresses all facets of content creation, distribution, and consumption is required given the complex environment of AI-generated works. Criteria for author identification, copyright attribution, and particular ethical concerns about AI-generated content should all be part of these regulations.

Legal professionals, AI practitioners, and ethicists must work together to develop rules that encourage the appropriate use of AI. Comprehensive guidelines not only empower content

creators and businesses to navigate the legal terrain with confidence but also foster an environment of ethical content creation that respects the principles of transparency and integrity.

8.3 Balancing Innovation and IP Protection in the Digital Age

The digital age's embrace of generative AI underscores the importance of striking a harmonious balance between innovation and IP protection. The ongoing transformation of content production necessitates a recalibration of IP norms to accommodate AI's revolutionary capabilities.

This delicate equilibrium requires a multidisciplinary approach that acknowledges the diverse interests of content creators, technology innovators, and consumers. Encouraging innovation while safeguarding IP rights involves continual dialogue and collaboration between stakeholders, aiming to develop frameworks that propel creativity forward while preserving the rights and interests of those involved.

In conclusion, the rise of generative AI in content creation marks a pivotal juncture for intellectual property law. As AI-generated content challenges traditional notions of authorship, ownership, and usage, the establishment of tailored legislation and comprehensive guidelines becomes paramount. The intersection of innovation and IP protection calls for proactive and inclusive efforts to navigate this uncharted territory, ensuring that the creative potential of AI is harnessed while safeguarding the rights of content producers and creators.

9. Conclusion

The transformative impact of generative AI on content production has heralded a new era of creativity, yet its proliferation has unveiled a complex web of legal challenges at the nexus of intellectual property (IP) law. Throughout this research paper, we have meticulously explored the intricate interplay between generative AI and the legal sphere, delving into the realms of copyright, patents, trademarks, fair use, and ethical considerations. As we draw our investigation to a close, we recapitulate key findings, shed light on the implications for the future of AI and intellectual property, and emphasize the imperative of collaborative efforts to shape a responsive and equitable legal landscape.

9.1 Recapitulation of Key Findings

Our exploration underscores the profound shifts brought about by generative AI, necessitating a reevaluation of established legal paradigms. The juxtaposition of AI's creative output with IP law raises questions of authorship, ownership, and rights attribution. The examination of recent legal disputes, such as Andersen v. Stability AI et al. and Getty's lawsuit against Stable Diffusion, highlights the complex terrain of assessing legal status. The fair use doctrine, while

pivotal, remains a contentious arena, necessitating nuanced interpretation in the context of AI-generated content.

Non-technological influences, including the Andy Warhol Foundation case, serve as poignant reminders that legal considerations extend beyond the digital realm. Trademark law is grappling with novel challenges as AI platforms drive brand promotion and advertising, exemplified by the Lush v. Amazon case. The multifaceted treatment of AI-generated works underscores the urgency of developing new regulations and guidelines to provide clarity for businesses and content providers.

Ethical considerations emerge as a critical cornerstone, demanding transparency, accountability, and responsible data usage. The cross-border nature of generative AI mandates international cooperation and legal harmonization, acknowledging the universal implications of AI-generated content and the necessity for unified legal frameworks.

9.2 Implications for the Future of AI and Intellectual Property

Looking ahead, the future of AI and intellectual property is brimming with possibilities and challenges. As generative AI continues to refine its capabilities, the legal landscape must evolve to accommodate the unique attributes of AI-generated content. The emergence of tailored legislation is essential to address the complex confluence of AI and IP, safeguarding creators' rights while promoting innovation. Comprehensive guidelines will provide creators, businesses, and users with a roadmap for responsible AI utilization, integrating principles of ethical content creation and transparent data sourcing.

Striking the delicate balance between innovation and IP protection in the digital age remains paramount. The trajectory of AI and intellectual property is inexorably intertwined, demanding ongoing discourse, adaptation, and foresight to nurture an environment where creativity flourishes while rights are respected.

9.3 Call for Collaborative Efforts to Shape the Legal Landscape

The intricate challenges posed by generative AI's convergence with IP law necessitate a unified response. Collaborative endeavors, involving legal experts, AI practitioners, policymakers, ethicists, and industry stakeholders, are fundamental to shaping a responsive legal landscape. The call for international cooperation and legal harmonization transcends borders, enabling the formulation of uniform frameworks that address global issues while acknowledging local contexts.

As the generative AI landscape evolves, businesses, content creators, and AI developers are implored to be proactive stewards of intellectual property. Legal procurement of training data, meticulous record-keeping, and contractual agreements are essential tools in fortifying IP

protection. The continuous evolution of laws and standards must be a shared endeavor, reflecting the collective determination to harness the potential of generative AI while respecting the principles of intellectual property.

In conclusion, the dynamic interplay between generative AI and intellectual property law necessitates a forward-thinking approach that aligns innovation with ethical, legal, and equitable principles. As we navigate this ever-evolving terrain, collaborative efforts stand as the linchpin in shaping a legal landscape that not only embraces AI's transformative capabilities but also safeguards the rights and interests of all stakeholders involved.

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Geographical Indications and Start-up India: Bridging the Gap between Cultural Heritage, Entrepreneurship, and Sustainable Tourism

Naina Chudasama[142]

ABSTRACT

Geographical Indications (G.I.) as an IPR and startups are vital drivers of sustainable tourism, economic development, and cultural preservation. GIs provide startups with market access, product differentiation, and contribute to the success and sustainability of GI-protected industries. This research paper examines the symbiotic relationship between startups, GIs, and sustainable tourism, emphasizing their significant contributions to economic, social, and cultural value creation with creative ideas and entrepreneurial skills. Moreover GIs offer startups numerous economic benefits. They enable market access by leveraging the reputation and recognition associated with specific geographic regions. Startups that obtain GI status can differentiate their products, attract customers seeking authentic experiences, and stimulate demand for locally produced goods and services. This leads to increased production, employment, and income for local communities.

Furthermore, GIs play a crucial role in preserving and promoting cultural heritage. Startups collaborating with GI-protected products actively participate in preserving traditional knowledge, cultural practices, and craftsmanship. By working directly with local communities and artisans, startups contribute to revitalizing traditional industries and empowering communities to sustain their cultural practices. The Indian Basmati Rice GI & others in India exemplifies how GIs help preserve traditional cultivation and processing methods, ensuring the transmission of these practices to future generations. Sustainable tourism benefits from its association with GIs, as they contribute to the authenticity and uniqueness of destinations. GIs are closely linked to specific cultural traditions, culinary experiences, and sustainable practices. Tourists are increasingly drawn to destinations offering authentic, culturally immersive experiences aligned with sustainable values. The presence of GI-protected products enhances the attractiveness of a destination, promotes responsible travel choices, and supports local communities. The Darjeeling Tea GI and many more successfully promotes sustainable tourism by attracting visitors interested in the region's history and tea production. Startups in sustainable tourism drive innovation, introduce sustainable business models, foster community engagement, leverage technology, promote collaboration, educate travelers, and employ data-driven decision-making. By incorporating sustainability into their core business models, startups align with the principles of responsible tourism and meet the growing demand for ethical travel experiences. Through collaboration with GI-protected industries, startups provide innovation, market reach, entrepreneurship, and new avenues for economic growth. This collaborative approach creates a mutually beneficial ecosystem that contributes to economic development, social empowerment, and cultural preservation. In addition to which in the year 2020 The Department for Promotion of Industry and Internal Trade (DPIIT) has reportedly planned to ask online retailers such as Amazon and Flipkart to focus on listing geographical indication (GI) items, to give a boost to local producers and manufacturers. A positive move towards synchronizing Startups, Entrepreneurship, and GI's & related forums.

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In conclusion, the combination of startups under Startup India, GIs, and sustainable tourism offers a promising pathway towards responsible and authentic travel experiences. The synergistic relationship between startups and GIs enables economic growth, cultural preservation, and market access, while sustainable tourism benefits from the authenticity, uniqueness, and responsible practices associated with GI-protected products. This research paper highlights the mutual benefits and potential for collaboration between startups, GIs, and sustainable tourism, underscoring their collective contribution to economic, social, and cultural value creation.
Keywords : Geographical Indication (GI's), Startup India, Sustainable Tourism, Cultural Heritage, Entrepreneurship, DPIIT, IPR, Human Capital Development

What is GI & it's International Reach?

A geographical indication (GI) is a sign used on products that have a specific geographical origin and possess qualities or a reputation that are due to that origin. In order to function as a GI, a sign must identify a product as originating in a given place. In addition, the qualities, characteristics or reputation of the product should be essentially due to the place of origin. Since the qualities depend on the geographical place of production, there is a clear link between the product and its original place of production.

A geographical indication (GI) tag in India is a sign used on products that have a specific geographic origin and includes the qualities or reputation of that origin. A GI is given mainly to agricultural, natural, manufactured, handicraft arising from a certain geographical area.

Geographical Indications (GIs) are not confined to national borders; they hold significant value on the international stage as well. GIs have gained recognition and protection through various international agreements and treaties, contributing to the global promotion and preservation of unique regional products.

Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement[143]: GIs are recognized and protected under the TRIPS Agreement, a part of the World Trade Organization (WTO) framework. The TRIPS Agreement sets out minimum standards for intellectual property protection, including GIs. It mandates WTO member countries to provide legal mechanisms to prevent the use of misleading indications for products that do not originate from the indicated territory.

Lisbon Agreement for the Protection of Appellations of Origin and their International Registration[144]: This international treaty administered by the World Intellectual Property Organization (WIPO) focuses specifically on appellations of origin. It provides a system for the international registration and protection of appellations of origin, contributing to the global

[143] https://wto.org/trips (last visited on July 22, 2023)
[144] https://www.wipo.int/treaties/en/registration/lisbon/ (last visited on July 22, 2023)

recognition and protection of GIs.

Bilateral and Regional Agreements: Many countries enter into bilateral and regional agreements to recognize and protect each other's GIs. These agreements facilitate international trade by ensuring that products with GIs are not subject to misuse or counterfeiting in foreign markets.

Geneva Act of the Lisbon Agreement on Appellations of Origin and Geographical Indications[145]**:** The Geneva Act represents a contemporary enhancement of the Lisbon Agreement, broadening its purview to encompass all geographical indications (GIs) instead of just appellations of origin (AO). This expansion permits international organizations to participate as contracting parties as well. Beyond merely indicating product origin, GIs also highlight cultural contributions and acknowledge the creativity embedded in genuine expertise. A product name registered as a GI or AO — known as a protected geographical indication (PGI) or a protected designation of origin (PDO) within the EU — is exclusively usable by producers situated within the specified geographical area. Each contracting party assumes the responsibility of safeguarding AOs and GIs originating from other signatory countries, respecting their own legal systems and practices.

In summation, the Geneva Act aims to establish an efficient mechanism for the protection of geographical indications, while the Lisbon Agreement has historically centered on appellations of origin. This shift in focus not only modernizes the framework but also extends its inclusivity to various forms of geographical indications. Furthermore, the EU's involvement in the Geneva Act adds a notable dimension to the international landscape of geographical indication protection.

European Union (EU) Regulations[146]: The EU has established a robust system for protecting GIs through regulations that grant exclusive rights to the products originating from specific regions. Well-known examples include products like Champagne, Roquefort cheese, and Parmigiano-Reggiano. These regulations ensure that products labeled with specific GIs meet defined quality and production standards.

Promotion of GI Products in International Markets: GIs often become ambassadors of the cultural and historical heritage of a region. Through targeted marketing and promotion efforts, GI products gain recognition in international markets. This can drive demand and enhance the reputation of products with a strong geographical identity.

[145] https://eur-lex.europa.eu/EN/legal-content/summary/protection-of-geographical-indications-geneva-act-of-the-lisbon-agreement.html (last visited on July 22, 2023)

[146] https://europa.eu/youreurope/business/running-business/intellectual-property/geographical-indications/index_en.htm#:~:text=Geographical%20indications%20protect%20your%20products,as%20certain%20requirements%20are%20met. (last visited on July 22, 2023)

The Laws and Policy governing GI in India

The legal and policy framework governing Geographical Indications (GI) in India is established to recognize, protect, and promote the unique identity and qualities of products originating from specific geographical regions. The primary legislation addressing GIs in India is the Geographical Indications of Goods (Registration and Protection) Act, 1999[147].

Geographical Indications of Goods (Registration and Protection) Act, 1999: This Act provides the legal framework for the registration and protection of GIs in India. It outlines the process for registering GIs, the rights granted to register GI holders, and the enforcement mechanisms in case of infringement. The Act defines the criteria for determining whether a product qualifies for GI protection, including its link to a specific geographical area and the qualities, reputation, or characteristics attributed to that origin.

Geographical Indications Registry[148]: The Registry, under the Ministry of Commerce and Industry, is responsible for administering the registration of GIs. It examines applications, maintains the GI register, and facilitates the protection and enforcement of GI rights.

Intellectual Property Appellate Board (IPAB)[149]: IPAB is a quasi-judicial body that handles appeals against decisions of the Registrar of GIs. It provides a platform for resolving disputes related to the registration and protection of GIs.

Policy Initiatives: The Indian government, recognizing the importance of GIs, has implemented various policy initiatives to promote and protect them. Startup India Seed Fund Scheme, launched by the Department for Promotion of Industry and Internal Trade (DPIIT), includes provisions for supporting startups involved in the creation of GI-protected products. Additionally, policies like 'One District One Product' (ODOP)[150] and various state-level initiatives aim to identify and promote specific GI products from different regions.

ODOP[151]: The "One District One Product" (ODOP) initiative is focused on achieving balanced regional development throughout India by highlighting and promoting a unique product from each district. The core aim is to drive comprehensive socioeconomic advancement across various regions. A total of 1102 products from 761 districts have been identified under this initiative. Products have been selected through a collaborative process involving States/UTs,

[147] https://www.indiacode.nic.in/handle/123456789/1981?sam_handle=123456789/1362 (last visited on August 5,2023)

[148] https://timesofindia.indiatimes.com/videos/toi-original/what-does-a-gi-tag-mean-for-a-product-who-gives-this-tagging-all-you-need-to-know/videoshow/99270827.cms#:~:text=In%20India%2C%20the%20Geographical%20Indication,Ministry%20of%20Commerce%20and%20Industry. (last visited on August 5,2023)

[149] https://www.india.gov.in/website-intellectual-property-appellate-board(last visited on August 5,2023)

[150] https://www.india.gov.in/spotlight/one-district-one-product-odop(last visited on August 5,2023)

[151] https://www.india.gov.in/spotlight/one-district-one-product-odop(last visited on August 6,2023)

considering factors like existing local ecosystems, Districts as Export Hubs (DEH), and products with Geographical Indications (GIs). Activities related to the initiative are carried out at the state and district levels, in coordination with the relevant departments of States/UTs. Several notable activities under the ODOP initiative include:

- Facilitating the shipment of 30 tonnes of Lakadong Turmeric from Meghalaya.
- Organizing the Mango Festival of India in Japan, showcasing Indian mango varieties in convenience stores and wholesale markets.
- Import substitution of over 2000 KGs of walnuts from Kashmir to Karnataka.
- Buyer-seller meets for textile products in India-Russia and Jammu & Kashmir.
- Showcasing ODOP products at international events such as the World Economic Forum and International Day of Yoga celebrations in New York.
- Collaborations with Indian Embassies for promoting exports and public procurement of ODOP products.

Additionally, ODOP exhibitions have been held in various global locations like Croatia and Canada to enhance the visibility and export potential of ODOP products. The initiative demonstrates a strategic effort to harness the distinct economic potential of each district, fostering growth and prosperity across the nation.

International Agreements: India's GI protection is also influenced by international agreements. The Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement, administered by the World Trade Organization (WTO), establishes standards for the protection of GIs globally. India's commitments under TRIPS influence its domestic GI framework.

In conclusion, the legal and policy landscape for GIs in India centers around the Geographical Indications of Goods (Registration and Protection) Act, 1999. This legislation, along with supportive policies and institutions, aims to safeguard the unique identity of regional products, protect the rights of producers, and promote economic growth by preserving cultural heritage and promoting quality products with distinct geographical origins.

Growth of Geographical Indications (IPR)

There is an ever increasing growth of Geographical Indications, as People are getting more aware of Geographical Indications. The GI sector is growing rapidly, as consumers are increasingly demanding products that are authentic and have a unique story. The government is supporting the GI awareness so that people can tap this market

Challenges & Issues faced by GI in India

Geographical Indications (GI) in India have undoubtedly paved the way for the recognition and protection of the country's diverse cultural heritage and regional uniqueness. However, amidst their positive impact, certain challenges and issues, particularly pertaining to the absence of mandatory quality checks in existing laws, have emerged as notable concerns.

Geographical Indications (GI) in India have brought to light a range of challenges and issues that impact their successful implementation and protection. These challenges stem from various domains and warrant careful attention to ensure the longevity and effectiveness of the GI system.

Lack of Awareness: One of the primary challenges is the lack of awareness among producers and consumers about the concept of GI. Many local artisans and producers might not be familiar with the benefits and procedures associated with GI registration, hindering them from leveraging this intellectual property tool effectively.

Counterfeiting and Misuse: GI-protected products are often vulnerable to counterfeiting and misuse. Unauthorized producers might label their products with false GI claims, diluting the value and authenticity of genuine GI products.

Regulatory Framework: The existing regulatory framework for GIs might need further refinement to address emerging challenges. Ambiguities in legal definitions, procedures, and enforcement mechanisms can lead to disputes and delays in the GI registration process.

Inadequate Enforcement: Effective enforcement of GI rights is essential to prevent infringement and misuse. Insufficient enforcement mechanisms can lead to violations and erode the value of GI protection.

Geographical Extent: The geographical scope of certain GIs might be ambiguous, leading to conflicts over territorial jurisdiction and the actual boundaries of the protected area.

Documentation and Evidence: The process of gathering documentation and evidence to establish the link between the product and its geographical origin can be complex and time-consuming, particularly for traditional knowledge-based products.

Financial Constraints: Many local producers and artisans might face financial constraints in pursuing GI registration due to associated costs. This can limit the inclusivity of the GI system.

Slow Registration Process: The process of obtaining GI registration can be lengthy, often taking several years. Delays can hinder producers from fully realizing the benefits of GI protection.

Evolving Consumer Preferences: Changing consumer preferences and market dynamics pose challenges in terms of adapting traditional practices to meet contemporary demands while retaining the essence of the geographical origin.

Conflict Resolution: Disputes among stakeholders, including producers, regarding ownership and usage of GIs can arise, necessitating effective conflict resolution mechanisms.

International Protection: Ensuring the protection of Indian GIs in international markets can be challenging due to differing legal frameworks and enforcement mechanisms.

Quality Control: The absence of a mandatory quality control mechanism for GI-protected goods raises concerns about product consistency and adherence to defined standards. Inconsistent quality can erode consumer trust and undermine the credibility of GI products.

One of the key challenges is the lack of a robust quality control mechanism for GI-protected goods. Unlike many other countries, India does not currently have a mandatory quality check requirement embedded in its GI laws. This omission has led to varying product standards and quality, which in turn compromises the authenticity and reputation of GI products. Consumers' trust in the distinctiveness of products associated with a specific geographical origin can erode when they encounter disparities in quality.

The absence of stringent quality control measures not only affects consumer trust but also hampers the competitiveness of GI products in both domestic and international markets. In an increasingly globalized world, maintaining consistent quality is pivotal for sustaining demand and ensuring the long-term success of GI products. The lack of mandatory quality checks can also expose genuine producers to unfair competition from substandard alternatives that falsely claim GI associations.

To address these challenges, it is imperative for India's GI framework to incorporate mandatory quality control measures. Such measures would involve standardized quality checks and

adherence to specific production methods, guaranteeing that GI products consistently meet established standards. Integrating quality control requirements within the legal framework would enhance consumer confidence, preserve the reputation of GI products, and promote fair competition.

Start-ups and its Reach

Overview on Startup India, DPIIT and Startup Funding: India has the 3rd largest start up ecosystem in the world; expected to witness YoY growth of a consistent annual growth of 12-15%.[152] The Department for Promotion of Industry and Internal Trade (DPIIT)[153] is a government agency under the Ministry of Commerce and Industry in India. DPIIT plays a central role in implementing and coordinating policies related to industrial promotion, internal trade, investment promotion, and intellectual property rights. It is responsible for various initiatives to promote entrepreneurship, innovation, and industrial development, including the administration of Start-up India.

As per the last data available, India has about 50,000 start-ups in India in 2018; around 8,900 – 9,300 of these are technology led start-ups 1300 new tech start-ups were born in 2019 alone implying there are 2-3 tech start-ups born every day. [154]

The start-up ecosystem in India has witnessed significant growth, with the number of women entrepreneurs increasing from 10% to 14%. Start-ups have generated around 40,000 new jobs, bringing the total jobs in the ecosystem to 1.6-1.7 lakh.[155] Notably, top deals accounted for 40% of the total deal value, indicating a focus on quality over quantity by investors. It is remarkable to note that under the Start-up India initiative of Department for Promotion of Industry and Internal Trade (DPIIT) have registered 72,993 start-ups that created 7.68 lakh jobs in past six years.[156]

As per the last data available, private equity transaction volume in India increased for the second consecutive year. While the average deal size experienced a minor decrease compared to the previous year, the total value amounted to $26.3 billion in 2018, marking the second-

[152].https://www.startupindia.gov.in/content/sih/en/international/go-to-market-guide/indian-startup-ecosystem.html (last visited on July 29, 2023)

[153] https://dpiit.gov.in/ (last visited on July 29, 2023)

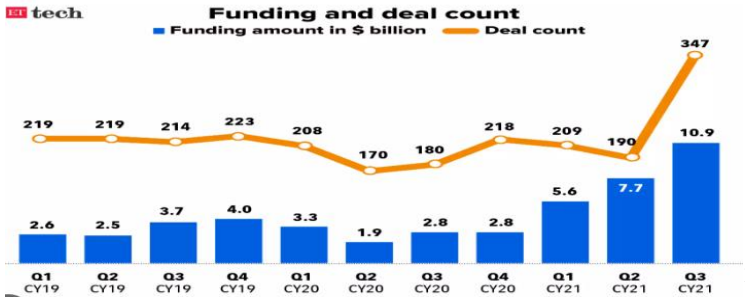
[154].https://economictimes.indiatimes.com/small-biz/sme-sector/how-tech-startups-are-boosting-the-growth-of-small-e-commerce-businesses-in-india/articleshow/91703404.cms?from=mdr (last visited on July 29, 2023)

[155].https://www.iibs.edu.in/news/startups-in-india-an-overview-top-10-mba-colleges-in-bangalore-773(last visited on August 1, 2023)

[156] https://economictimes.indiatimes.com/tech/startups/india-registered-72993-startups-that-created-7-68-lakh-jobs-in-past-six-years/articleshow/93008300.cms?from=mdr(last visited on August 1, 2023)

highest value over the last ten years. Additionally, there was a rise in the number of deals surpassing the $50 million threshold when compared to the preceding year.[157]

Start-ups Funding: Funding refers to the money required to start and run a business. It is a financial investment in a company for product development, manufacturing, expansion, sales and marketing, office spaces, and inventory. The announcement of The Startup India Seed Fund Scheme (SISFS), initiated by DPIIT, has been established with a budget of INR 945 Crore, was made by the Hon'ble Prime Minister during the Prarambh: Start-up India International Summit on January 16, 2021. Following the endorsement from the EFC (Expenditure Finance Committee) and the Hon'ble Finance Minister, the scheme was officially notified on January 21, 2021. This scheme aims to provide financial support to start-ups for various stages, including Proof of Concept, prototype development, product trials, market entry, and commercialization. Envisaged to span a period of four years, the initiative is expected to benefit approximately 3,600 entrepreneurs through the involvement of 300 incubators.[158]



[159]

Entrepreneurship & GI

Social Entrepreneur: Social entrepreneurship is a rapidly evolving and dynamic concept that marries the principles of business entrepreneurship with a strong commitment to social and environmental impact. It represents a transformative approach to addressing complex societal challenges, where innovative solutions are harnessed to create sustainable positive change. It

[157]https://www.startupindia.gov.in/content/sih/en/international/go-to-market-guide/indian-startup-ecosystem.html#:~:text=Private%20equity%20deal%20volume%20in,increased%20from%20the%20previous%20year. (last visited on July 29, 2023)
[158]https://seedfund.startupindia.gov.in/about#:~:text=DPIIT%20has%20created%20Startup%20India,incubators%20in%20the%20next%204(last visited on August 1, 2023)
[159] Tushar Deep Singh , Indian startups raise $10 billion in a quarter for the first time ETtech, Oct 19, 2021 https://economictimes.indiatimes.com/tech/startups/indian-startups-raise-10-billion-in-a-quarter-for-the-first-time-report-says/articleshow/87106975.cms?from=mdr (last visited on July 7, 2023)

delves into the realm of social entrepreneurship[160], exploring its origins, key characteristics, impact, challenges, and the role it plays in driving social innovation and progress.

Origins and Evolution of Social Entrepreneurship

The roots of social entrepreneurship can be traced back to historical figures who sought to address social issues through innovative means. Florence Nightingale, for example, is often considered one of the earliest social entrepreneurs, pioneering modern nursing practices and healthcare reforms. However, it wasn't until the latter half of the 20th century that the term "social entrepreneurship" gained prominence.

Scholars like Bill Drayton, who founded Ashoka in 1980, played a pivotal role in popularizing the concept. Ashoka, a global network of social entrepreneurs, was established to support individuals driving transformative change across various sectors. In recent decades, social entrepreneurship has gained momentum, driven by the increasing recognition of the limitations of traditional philanthropy and aid in addressing systemic issues.

Key Characteristics of Social Entrepreneurship:

- Mission-Driven Approach: Social entrepreneurs are deeply committed to addressing social or environmental challenges. Their primary goal is to create positive impact rather than solely generating profit.
- Innovation: Social entrepreneurs adopt innovative approaches to problem-solving. They often develop novel business models, products, or services that challenge the status quo and offer sustainable solutions.
- Sustainability: Unlike traditional charity, social entrepreneurship emphasizes sustainability. Entrepreneurs strive to create self-sustaining initiatives that can generate revenue to support their social mission.
- Systemic Change: Social entrepreneurs tackle root causes of societal problems, aiming for systemic change rather than short-term fixes. Their interventions often lead to broader societal transformation.
- Measurable Impact: Impact assessment is a hallmark of social entrepreneurship. Entrepreneurs use metrics to track and demonstrate the effectiveness of their initiatives, ensuring accountability and transparency.

Impact and Examples of Social entrepreneurship having demonstrated its potential to drive positive change across various domains:

[160] N.R.Branschombe and R.A.Barohn, Social Pyschology (Pearson,Fourteenth Edition)

- Education: Teach For All, an organization founded by Wendy Kopp, recruits and trains young leaders to teach in underprivileged schools worldwide, addressing educational inequities.
- Healthcare: Arvind Eye Care System, established by Dr. G. Venkataswamy, offers high-quality, low-cost eye care to millions in India and other countries, combating blindness.
- Clean Energy: d.light, co-founded by Sam Goldman and Ned Tozun, provides affordable solar-powered solutions to off-grid communities, reducing reliance on polluting energy sources.
- Microfinance: Grameen Bank, founded by Muhammad Yunus, pioneered microcredit and microfinance, empowering impoverished individuals to start small businesses and improve their livelihoods.
- Environmental Conservation: The Ocean Clean-up, initiated by Boyan Slat, employs advanced technology to remove plastic waste from oceans, contributing to environmental preservation.

Similarly GI in India and Entrepreneurship correlating to the field of GI can bring a Social transformation and change in the Start-up India Ecosystem.

Challenges Faced by Social Entrepreneurs

While social entrepreneurship holds immense promise, it is not without challenges:

- Resource Constraints: Limited access to funding and resources can hinder the scalability and sustainability of social ventures.
- Balancing Mission and Financial Viability: Striking a balance between social impact and financial sustainability can be challenging, especially in resource-constrained environments.
- Complexity of Social Issues: Addressing deeply rooted societal problems requires navigating complex ecosystems and overcoming resistance to change.
- Lack of Infrastructure: In some regions, inadequate infrastructure and regulatory barriers can impede the implementation of innovative solutions.
- Measuring Impact: Quantifying social impact and attributing it to specific interventions can be complex, affecting the ability to attract funding and partnerships.

Role in Driving Social Innovation

Social entrepreneurship plays a vital role in driving social innovation by fostering creativity, resilience, and collaboration. It encourages individuals and organizations to think beyond traditional approaches and explore new avenues for addressing pressing challenges. The

emphasis on sustainable and scalable solutions encourages continuous experimentation and learning.

Furthermore, social entrepreneurship promotes cross-sector collaboration, bringing together stakeholders from business, government, and civil society to co-create solutions. This multi-stakeholder approach enhances the effectiveness of interventions and leverages diverse expertise and resources.

The Future of Social Entrepreneurship

As the world grapples with complex global challenges, the role of social entrepreneurship becomes increasingly critical. It holds the potential to transform the way society addresses issues such as poverty, inequality, environmental degradation, and healthcare disparities. Governments, corporations, and civil society are recognizing the value of social entrepreneurship and are forming partnerships to amplify its impact.

The digital age and technological advancements are further accelerating the reach and potential of social entrepreneurship. Platforms and networks enable entrepreneurs to access global markets, share best practices, and collaborate with like-minded innovators.

In an era marked by global challenges, social entrepreneurs have emerged as catalysts for change, pioneering innovative solutions to address pressing social, environmental, and economic issues. Concurrently, the concept of Geographical Indications (GIs) has gained prominence as a means to protect and promote unique products originating from specific regions, while contributing to local economies and cultural heritage. This essay explores the intersection of social entrepreneurship and GIs, highlighting their shared goals of sustainable development and cultural preservation, as well as the potential synergy between these two powerful mechanisms.

Social Entrepreneurship: Catalysts for Change

Social entrepreneurship transcends traditional business paradigms, with its focus on generating positive societal impact alongside financial returns. These change-makers, often driven by a passion for addressing societal inequities, leverage innovative business models to tackle diverse challenges such as poverty, education, healthcare, and environmental degradation.

Key Characteristics of Social Entrepreneurship:

- Mission-Driven: Social entrepreneurs are guided by a clear mission to create positive change and address societal challenges, placing impact at the heart of their endeavours.
- Innovation: They employ innovative approaches to develop solutions that disrupt established norms and deliver sustainable results.

- Sustainability: Unlike traditional philanthropy, social entrepreneurship emphasizes financial sustainability through business models that generate revenue to support their social objectives.
- Collaboration: Collaboration with stakeholders from various sectors is integral to their approach, fostering cross-sectoral partnerships to maximize impact.
- Impact Measurement: Measuring and quantifying impact is a central tenet, ensuring transparency, accountability, and continuous improvement.

It stands at the intersection of innovation, impact, and sustainability. It embodies the spirit of change-makers who are dedicated to reshaping the world by addressing its most pressing challenges. With its mission-driven approach, innovative thinking, and commitment to measurable impact, social entrepreneurship offers a transformative framework for building a more just, equitable, and sustainable future. As it continues to evolve, social entrepreneurship has the potential to inspire a wave of positive change that extends far beyond its individual initiatives.

Geographical Indications: Preserving Heritage and Empowering Communities

Geographical Indications are a form of intellectual property that identifies products as originating from a specific geographical region and possessing qualities, reputation, or characteristics attributable to that place of origin. GIs play a pivotal role in preserving traditional knowledge, promoting cultural heritage, and supporting local economies.

Key Aspects of Geographical Indications:

- Origin Identity: GIs link products to their specific geographic origin, safeguarding their distinct attributes and protecting local traditions.
- Consumer Trust: GIs enhance consumer confidence by guaranteeing the authenticity, quality, and unique attributes of products.
- Economic Development: GIs contribute to local economic growth by creating opportunities for producers, stimulating tourism, and fostering sustainable rural livelihoods.
- Cultural Heritage: They serve as custodians of cultural heritage, encouraging the continuation of traditional production methods and promoting intergenerational knowledge transfer.

Synergy between Social Entrepreneurship and GIs

- Local Empowerment: Social entrepreneurs often collaborate with marginalized communities to develop and market products that align with their cultural identity. GIs

provide a legal framework for protecting and promoting these products, ensuring equitable benefits for local communities.

- Economic Sustainability: GIs can enhance the marketability of products created by social enterprises, creating sustainable revenue streams that support their social missions.
- Cultural Preservation: Both social entrepreneurship and GIs contribute to the preservation of cultural heritage. While social entrepreneurs empower communities through economic opportunities, GIs safeguard traditional knowledge and production methods.
- Collaboration: Social entrepreneurs and GI organizations can collaborate to amplify the impact of initiatives. By combining efforts, they can foster economic development, cultural preservation, and sustainable practices in tandem.

Case Study: Kumaon GIs and Social Entrepreneurship

The Kumaon region of Uttarakhand in India provides a compelling example of the interplay between social entrepreneurship and GIs. Here, organizations like the Kumaon Organic Producers Company (KOPC) and the Beejom Cooperative have leveraged social entrepreneurship principles to promote sustainable agriculture and rural development. Simultaneously, GIs such as the "Kumaon Chyura Oil" have been registered to protect traditional crops and indigenous knowledge.

By combining social entrepreneurship with GI protection, these initiatives empower local farmers, promote organic practices, enhance product quality, and preserve traditional agricultural methods. The collaboration between social entrepreneurs and GI organizations showcases the potential of a holistic approach that addresses economic, environmental, and cultural dimensions.

Challenges and Future Prospects

While the synergy between social entrepreneurship and GIs holds promise, several challenges must be navigated:

- Awareness and Education: Many communities may lack awareness of GIs and their potential benefits. Education is crucial to ensure that local producers understand the value of GI protection and how it aligns with their goals.
- Legal Frameworks: Developing and enforcing GI regulations can be complex, requiring strong legal frameworks and effective governance structures to prevent misuse and ensure equitable benefits.

- Access to Markets: GIs can face challenges in accessing global markets due to trade barriers, certification requirements, and competition. Social entrepreneurs can play a role in facilitating market access through innovative distribution and marketing strategies.
- Sustainability: Ensuring the long-term sustainability of both social enterprises and GIs requires careful planning, resource management, and continuous adaptation to changing circumstances.

Sustainable Tourism & Startup India

Sustainable Tourism refers to sustainable practices in and by the tourism industry. It is an aspiration to acknowledge all impacts of tourism, both positive and negative. It aims to minimize the negative impacts and maximize the positive ones.

The World Tourism Organization defines sustainable tourism as "tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities".

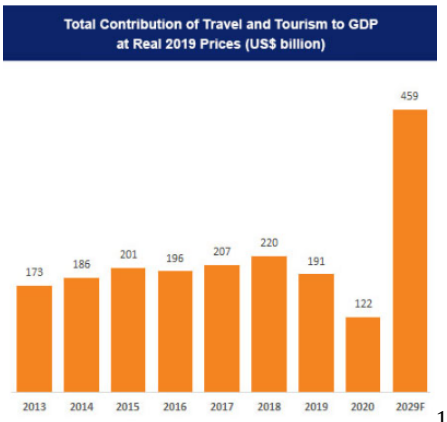
[161]

Market Size of Tourism Start-ups

India's travel and tourism industry is a significant contributor to the country's GDP, with a total contribution of around US$178 billion. The industry has seen technological advancements, with the adoption of cloud solutions and Software as a Service (SaaS) technologies. The country has approximately 1500 start-ups in the travel and tourism sector, providing platforms for planning and booking travel services.[162]

[161] https://upskill.study/sustainable-tourism(last visited on July 7, 2023)

[162].https://www.startupindia.gov.in/content/sih/en/bloglist/blogs/TourismSector.html#:~:text=As%20per%20the%20Startup%20India,service%20providers%20with%20technology%20solutions. (last visited on July 27, 2023).



163

Start-ups and Tourism

India's diverse geographical landscape and rich cultural heritage make it a prominent player in the international tourism sector. The country's tourism industry has witnessed substantial growth, contributing significantly to its GDP. According to IBEF's Growth of Tourism and Hospitality Industry report, travel and tourism collectively contribute around US$ 178 billion to India's GDP, with a projected travel market of US $125 billion by the financial year 2027. Additionally, the sector anticipates an international tourist arrival of 30.5 million by 2028, further highlighting its potential.

The emergence of over 1500 start-ups in the travel and tourism industry underscores its dynamism and potential for innovation. These start-ups offer a range of platforms and services that facilitate travel planning and booking, enhancing the overall travel experience. Virtual technologies have gained traction within the industry, with the Ministry of Tourism conducting virtual tours and safaris to provide immersive experiences. Leveraging virtual technologies in collaboration with international institutions could enhance India's tourism offerings and accessibility.

Aggressive marketing strategies are essential to position India as a must-visit destination, involving campaigns like 'Incredible India' on a global scale. Additionally, fostering curated experiences rather than just sightseeing can enrich tourist engagement. Niche tourism areas, such as luxury spa sessions, animal sanctuaries, and religious pilgrimage tours, provide opportunities for customization and cater to diverse preferences.

Sustainability is a key consideration in the industry's evolution. Developing eco-friendly accommodations and conscious luxury options align with the growing trend of responsible tourism. While the sector faces challenges like infrastructure inadequacies, connectivity limitations, and regulatory hurdles, the Indian government's initiatives, like urging domestic

[163] https://www.ibef.org/industry/tourism-hospitality-india (last visited on July 7, 2023).

tourism through Prime Minister Narendra Modi's call to visit 15 destinations by 2022, underscore its commitment to transforming India into a global tourism hub. The Draft National Tourism Policy 2022 reinforces this commitment by prioritizing tourism and infrastructural enhancement.

Noteworthy start-ups in the sector demonstrate innovation and creativity. For instance, Param People Infotech Solutions developed 'Highway delite[164],' a road travel support platform, while Villotale Technologies[165] promotes rural experiential tourism. Similarly, Upcurve Business Services operates udChalo[166], a travel service for defence personnel.

In conclusion, India's travel and tourism sector is poised for growth, contributing significantly to the country's economy and providing avenues for innovation and employment. Collaborative efforts between the government, start-ups, and support institutions are vital to overcoming challenges, fostering sustainable practices, and realizing India's potential as a global tourism hub.

Neoliberalism - Startup & GI

The impact of neoliberalism on Geographical Indications (GIs) and start-ups is a multifaceted phenomenon that intertwines economic, social, and cultural dimensions. Neoliberalism, characterized by its emphasis on free markets, deregulation, and privatization, has shaped the landscape in which GIs and start-ups operate. This essay explores the complex consequences of neoliberalism on GIs and start-ups, shedding light on both the opportunities and challenges that have emerged as a result.

Impact on Geographical Indications (GIs):

Positive Impacts:

- Market Access and Globalization: Neoliberal policies have facilitated international trade and market access, allowing GIs to reach a broader consumer base. GIs, such as Champagne or Parmigiano-Reggiano, have benefited from expanded global markets, enhancing their recognition and economic potential.
- Economic Growth and Innovation: Neoliberalism's emphasis on competition and innovation has led to improvements in the quality and value addition of GI products. Producers have adopted modern technologies and efficient production methods to enhance competitiveness.

[164] https://highwaydelite.com/ (last visited on July 31, 2023)
[165] https://www.villotale.in/ (last visited on July 31, 2023)
[166] https://www.udchalo.com/(last visited on July 31, 2023)

- Intellectual Property Protection: Neoliberal policies often strengthen intellectual property rights, which can be advantageous for GIs. Enhanced legal frameworks protect the unique identity and authenticity of GI products, reducing the risk of counterfeiting.
- Private Sector Engagement: Neoliberalism encourages private sector involvement in various industries, including those linked to GIs. This engagement can lead to investments in infrastructure, marketing, and distribution, benefiting local producers.
- Tourism and Cultural Preservation: GIs often embody cultural heritage and tradition. Neoliberalism's focus on economic growth has led to increased tourism around GIs, fostering cultural preservation and providing economic opportunities for local communities.

Negative Impacts:

- Commodification and Standardization: Neoliberal market forces can lead to the commodification and standardization of GIs. Traditional production methods and cultural nuances may be compromised to meet mass market demands, diluting the uniqueness of GIs.
- Marginalization of Small Producers: While neoliberalism can create opportunities, it may marginalize small-scale GI producers who lack resources to compete globally. Larger entities may dominate GIs, potentially eroding local cultural and economic identities.
- Loss of Cultural Identity: The pursuit of profit-driven production can prioritize economic gains over cultural preservation. This may lead to a loss of cultural identity and traditional knowledge associated with GIs.
- Dependency on Market Forces: Neoliberalism's reliance on market forces can expose GIs to economic volatility. Fluctuations in demand and consumer preferences can impact the livelihoods of local producers.
- Imbalanced Power Dynamics: Neoliberal policies can lead to imbalanced power dynamics between local communities and corporations. Larger entities may have greater bargaining power, potentially leading to exploitation of GI producers.

Impact on Start-ups:

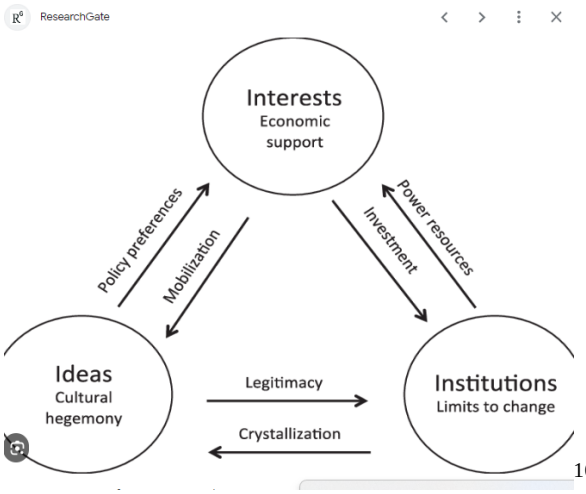
Positive Impacts:

- Entrepreneurial Culture: Neoliberalism encourages entrepreneurial activity by reducing bureaucratic hurdles and fostering a culture of innovation. Start-ups thrive in environments where they can quickly adapt and respond to market opportunities.

- Access to Capital: Neoliberal policies often lead to increased access to capital, as financial markets are liberalized. Start-ups can secure funding from venture capitalists, angel investors, and crowdfunding platforms.
- Technological Innovation: Neoliberalism's emphasis on competition and deregulation has fuelled technological advancements. Start-ups can leverage new technologies to disrupt traditional industries and create innovative solutions.
- Global Market Reach: Neoliberalism promotes international trade, enabling start-ups to access global markets. E-commerce platforms and digital marketing tools allow start-ups to reach consumers worldwide.

Negative Impacts:

- Inequality: Neoliberalism's focus on market forces can exacerbate income inequality. While some start-ups thrive, others struggle to compete or face barriers to entry, leading to uneven distribution of wealth and opportunities.
- Resource Concentration: Neoliberal policies may lead to the concentration of resources and power in the hands of a few dominant start-ups or corporations, limiting competition and stifling innovation.
- Labour Exploitation: Start-ups may adopt cost-cutting measures, including precarious employment practices, to remain competitive. This can lead to labors exploitation and reduced job security.
- Short-Term Focus: Neoliberalism's emphasis on profit maximization can incentivize start-ups to prioritize short-term gains over long-term sustainability or social impact.



[167]

[167] The exhausted futures of neoliberalism. From promissory legitimacy to social anomy - Scientific Figure on Research Gate. Available from: https://www.researchgate.net/figure/The-three-pillars-of-neoliberalism-Madariaga-2018_fig2_331387934 [last accessed 11 Aug, 2023]

THE BRIDGE

Sustainable Tourism & GI

GI-TRIPS[168] is India's and perhaps the world's first travel company which ideated to connect geographical indication to tourism. A geographical indication (GI) is a sign used on products that have a specific geographical origin and possess qualities or a reputation that are due to that origin[169]. In order to function as a GI, a sign must identify a product as originating in a given place.GI-TRIPS is hosting a virtual tour to showcase culture tourism linked with Geographical Indication and highlighting how GI tagged Bidriware, a metalcraft linked to the heritage and culture of Bidar city in the Indian state of Karnataka.[170]

171

Geographical Indications, Sustainable Tourism and Startup India

Geographical Indications, Sustainable Tourism and Startup India

172

The concept of "The Bridge of The Connection and Pathway to Growth through Cultural Heritage, Entrepreneurship, and Sustainable Tourism" underscores the pivotal role that cultural heritage, entrepreneurship, and sustainable tourism play in fostering a harmonious and

[168] https://www.gi-trips.com/(last visited on August 2, 2023)
[169] https://www.wipo.int/geo_indications/en/ (last visited on August 2, 2023)
[170] https://www.unwto.org/node/12341 (last visited on August 2, 2023)
[171].https://www.google.com/url?sa=i&url=https%3A%2F%2Fwww.unwto.org%2Fnode%2F12341&psig=AOvVaw33FwzRsWP_sx9Rxo2uneW4&ust=1692075417661000&source=images&cd=vfe&opi=89978449&ved=0CBIQjhxqFwoTCNiN5YSv24ADFQAAAAAdAAAAABAE (last visited on August 8, 2023).
[172] Self-Created by Author, N Chudasama (July 9 2023).

prosperous society. This bridge not only connects the past with the present but also acts as a conduit for future growth and development. Cultural heritage forms the foundation of a society's identity, reflecting its traditions, values, and history. Integrating entrepreneurship into the preservation and promotion of cultural heritage creates a dynamic synergy. Entrepreneurs, driven by innovation and creativity, not only help conserve traditions but also breathe new life into them. This symbiotic relationship contributes to economic growth, employment generation, and the rejuvenation of cultural practices that might otherwise fade away.

Quality control is a vital aspect in ensuring that Geographical Indication (GI)-protected goods maintain their authenticity and excellence. However, the absence of a mandatory quality control system for such goods poses challenges to their credibility. Introducing rigorous quality control mechanisms can enhance consumer trust, thereby strengthening the significance of GIs and safeguarding the distinct characteristics of regional products.

Sustainable tourism, characterized by responsible practices that protect the environment and support local communities, aligns seamlessly with the promotion of geographical indications. By encouraging sustainable tourism practices through GI products, a cycle of mutual benefit emerges. Tourists are attracted by the authenticity of GI products, fostering demand, while local communities benefit economically. This synergy promotes the conservation of cultural heritage, protects the environment, and ensures the long-term prosperity of the region.

In conclusion, the bridge between cultural heritage, entrepreneurship, and sustainable tourism is a multifaceted pathway to growth. By leveraging the entrepreneurial spirit to preserve and promote cultural heritage, addressing quality control issues, and fostering sustainable tourism practices, societies can embrace a holistic approach to development. This approach not only contributes to economic prosperity but also ensures the continuity of traditions, the authenticity of regional products, and the well-being of both present and future generations.

Conclusion

Hence we can conclude that through Start-up India Initiative and Geographical Indications we can Preserve Cultural Heritage, Empower Entrepreneurs, and Promoting Sustainable Tourism. The convergence of social entrepreneurship and Geographical Indications holds transformative potential, offering a holistic approach to address complex challenges while preserving cultural heritage. Social entrepreneurs can leverage the power of GIs to enhance the impact of their initiatives, while GI protection can empower local communities and contribute to sustainable economic growth. As we navigate an increasingly interconnected and globalized world, the synergy between these two mechanisms provides a promising avenue for fostering sustainable development, cultural preservation, and positive change.

The impact of neoliberalism on Geographical Indications and start-ups is a complex interplay between economic liberalization, cultural preservation, innovation, and inequalities. While neoliberal policies have opened new avenues for market access and entrepreneurial activity, they have also posed challenges to cultural identity, marginalized small producers, and contributed to income disparities. Striking a balance between economic growth, cultural preservation, and social well-being is crucial to ensure that both GIs and start-ups contribute positively to sustainable development and societal progress.

Geographical Indications in India have demonstrated immense potential in preserving cultural heritage and promoting regional products, the absence of mandatory quality checks poses a significant challenge. Addressing this issue through legal amendments that enforce stringent quality control measures would not only safeguard the integrity of GI products but also contribute to sustaining consumer trust, fostering economic growth, and upholding the authenticity of India's rich cultural heritage.

Henceforth it can be concluded that Geographical Indications and Startup India together form a powerful bridge that spans the realms of cultural heritage, entrepreneurship, and sustainable tourism. This bridge not only connects the dots between tradition and innovation but also serves as a pathway to inclusive growth. By integrating the protection and promotion of geographical indications with the entrepreneurial spirit of Startup India, we bridge the gap between preserving cultural heritage and fostering economic advancement. This synergy creates a dynamic environment where traditional practices are revitalized through innovative approaches, thereby attracting sustainable tourism that not only benefits local communities but also safeguards the environment. In this nexus, Geographical Indications and Startup India emerge as catalysts, ensuring a harmonious blend of the past, present, and future.

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At the junction of IP and AI: Reality, Presumptions and Possibilities

Anushka Joy[173]

ABSTRACT

The genesis of Artificial Intelligence (AI) is a long story traced in reverse gear. "Can machines think?"- The very first question in Turing's paper, titled, "Computer Machinery and Intelligence" has become a pivotal rhetoric in today's globalized world. The question permeates all domains, whether strictly technological or not, and the legal field is no exception. Simple commands and a plain sailing program is something we are all acquainted with. Programming languages like LOGO have been a part of many educational curriculums. With the curve bending towards rapid advancements in techno-oriented spheres, like cyber security and data protection, complex algorithms creating cumbersome know-how problems and issues revolving around the use of AI pose questions of legal as well as ethical dimensions, particularly in the realm of Intellectual Property (IP) laws.

The Intellectual Property laws in India cover a range of concepts, domains and derivative concerns. For instance, copyright law embodies the concept of 'fair use' whereas the tendency to modify patent applications to give effect to acceptability is not new. With the advent of AI, IP realm is facing issues which are basic in the content of its questioning but advanced when it comes to an approach for resolution.

This paper aims to explore two aspects under titles, "Take 1: The Reality" and "Take 2: Possibility based on Presumptions". The first part is concentrated in the use of deep fake and speech synthesis as used by AI for creations. This shall cover discussions of projects based out of AI algorithms like "Kennedy's lost speech brought to life", "Remembering Rembrandt" and concepts of ectypes, text and data mining, fair use and fair dealing. The legal issues hovering at the periphery of this central discussion include falsification of identity, copyright infringement and authorship and performers' rights.

Recently, Elon Musk stirred a wave with 'Neuralink' giving a peak into a reality that was till date just a picturesque idea. The use of 'Neuralink' is to control mobile and computer devices by brain regulated inputs, which clearly finds application in physical assistance to the specially-abled. If technologies of the same garb could be extended to control musical instruments and it's attachment to Brain Chip Interface (BCI) with the aid of AIs could enable works of creation, inevitable doubts as to "who is the creator" are bound to take the front seat. It is this presumption which the second part is determined to unveil.

As a part of final remarks, the paper includes a comparative understanding of how Japan, South Korea and the US is dealing with such challenges, the use of dark net as a delivery system for releasing AI generated works with disruptive intentions and infringing artist's copyrights, as well as the repercussions for the Media and Entertainment industry. The interface of AI and IP has the potential to blur the lines of virtuality and reality, creating ripples in this technologically impregnated legal world and to hustle with the same, recognising such challenges and novelty in approach is a go-to trajectory pursued in this paper.

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Keywords: Artificial Intelligence, Brain Chip Interface, Intellectual Property, Neuralink, ChatGPT.

CHAPTER I

TAKE 1: THE REALITY

According to a New York Times article, Jason M. Allen's "Théâtre D'opéra Spatial",[174] an AI generated painting secured its place in an art competition held at Colorado. The artists' collective had fallout with the winner as they complained about ethics, depreciating value of human art and reduced AI to a "high-tech platform of plagiarism". Another startling project is "The Next Rembrandt"[175]. A combined effort by ING, a bank based in Amsterdam and Walter Thompson alongwith Microsoft led to the creation of a painting. This was based on a technology known as Convolutional Neural Network (CNT) which helps to understand the features of the original. The style and overall imitation has a precision worth appreciating. In another articles discussing the Rembrandt painting stated with firmness that the painting has all the features of what we know as 'ectype', original in endeavors of creation but devoid of authenticity of the originator[176]. In yet another project Kennedy's speech[177] was completed which unfortunately had to succumb to his assassination in the past. The process of reconstruction involved using techniques of AI and machine learning.

This is the reality which AI continues to create for today's generation. With a new reality emerging, emergent legal issues pave their way in. In the first instance, the risk of AI take over and leverage to non-expert artists; in the second, creation of a painting which is an exact replica of the style of Rembrandt and attribution of authorship rights; and finally, in the last one, the AI's virtuoso of speech synthesis comes to the forefront but not without the likelihood of such false personations for various purposes like spreading political propaganda.

An exposure to reality also introduces us to what is known as deepfakes. A deep fake, in oversimplified terms, is a 'fake' or an imitation done, by altering or modifying the original to suit one's needs. This includes complete face synthesis, identity swap, face re-enactment, etc. One of the worst impacted sections of society is women and children. When sexually-explicit

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[174] Kevin Roose, "An A.I.-Generated Picture Won an Art Prize. Artists Aren't Happy." The New York Times, Sept. 2, 2022

[175] Mariott Westhoff, Next Rembrandt available at https://d3.harvard.edu/platform-digit/submission/the-next-rembrandt/ (last visited on August 13, 2023)

[176] Luisiano Floridi, "Artificial Intelligence, Deepfakes and a Future of Ectypes", 31 Springer Link, (2018

[177] "John F Kennedy's lost speech brought to life" BBC News, 16 Mar., 2018

content goes viral, there have been instances where stalkers have posted deepfakes on illegal websites or websites which display sexually-explicit videos/photographs. Dr. D.Y. Chandrachud, J., in the KS Puttaswamy judgment[178] stated- "The overarching presence of State and non-State entities regulates aspects of social existence which bear upon the freedom of the individual." Production of deepfakes happening in the absence of consent, violates right to privacy as well as human right of inherent dignity. Under Section 66E of the Information Technology Act, 2000, stipulates a maximum punishment of three years or fine or both. The section is targeted to protect privacy. However, while there is a clause as to 'publishing', particularly morphing is not included by way of terminology. Also, equipping the Indian legal system with new tools in the form of provisions can help in avoiding unnecessary pendency of cases. Deepfakes also damage reputation (defamation), can be used as a threat (criminal intimidation), facilitate forgery, etc. Thus, the reality calls for specificity in provisions or a new statute to address crimes of modern times.

At the base of all this is data and text mining which is like excavating data on the web. This data helps come across patterns and it becomes easier to analyse and understand trends. The technique of data mining through AI opens gates to humongous data which becomes the starting point of the race to creation of deepfakes, morphing, sourcing sensitive information, etc.

None of the concepts we discussed can be read and understood in silos when dealing with intellectual property, the ones that can be copyrighted. AI and IP have entangled in such a manner that legal issues are bound to surface. However, equipping, like earlier said should be the Grund norm. This equipping can be done when we understand and accept the overlap between technology, law and innovation, deal with legal issues not just through existing laws but by developing novel provisions to accommodate interactions between AI and IP, and believe in all true spirits that man is both an innovator and a regulator.

CHAPTER II

TAKE 2: POSSIBILITY BASED ON PRESUMPTIONS

Elon Musk's Neuralink is an addition to the fast paced technological development the world beholds. Some devices visualize the use of "non-invasive BCI" which means that by means of externally-attached devices, the neurosignals will be picked up. This is in contrast to the "invasive BCI" which involves implantations like in case of Neuralink. In an article by

[178] Justice K.S. Puttaswamy v Union of India, (2019) 1 SCC 1

Alexander N Pisarchik et al, there are two points which caters to the objective of this paper[179]:

1) the detection of latent signals which unaided brain cannot recognise/pick up
2) control of external devices

In the first case, the BCI can help act as a detector of signals which normally the human brain misses out. This can be harnessed to avail likely discovery of that information which is not usually accessible. Thus, this opens avenues of exploration into the human brain. This is possible due to "thousands of channels" which relay neurosignals. If such a chip is possibly aligned with an AI, in the aftermath, may be the latent information can be extracted to create something new. Although it is undeniable that such information is sourced from the human brain but AI could aid in reading it.

Another aspect is the control of external devices. Largely developed for the medical field, Neuralink when extended to control musical instruments can cause AI-controlled automation. Now, combining the two presumptions, one of the outputs could be that BCI aligned with AI when harnesses information, latent or pre-existing, could create musical notes and instruct the playing of musical instruments. The creation of musical notes will be AI-aided. However, there may be instances in future where the AI efficiently picks up ideas and thoughts through BCI and converts the signals of such an idea/thought into music. Now in this case, even a non-musician becomes a creator but is he/she the author, is again the question posed. AI is a facilitator in this case but the idea for which the works are copyrighted is that of the human, so, the idea belongs to the human but the conversion of idea into music is the work of AI.

According to Section 2(d) of the Copyright Act, 1957, this confusion can be clarified. For computer generated works, author is the person who "causes the work to be created". The idea is caused in the mind of a person and it is through the interpretation of this idea AI generates music. Authorship can be attributed to the person. Now, this might cause an ethical conundrum that some form of acknowledgment must be for the AI as the receiver.

It is put forward further in this paper that AI can be acknowledged by acknowledging the regulators of AI, who could be persons designated for its operation. Thus, it is a set of presumptions that can bring a revolution in the entertainment industry by aiding people to unsheathe information of the brain and at the same time give the joy of being creators without

[179] Alexander N Pisarchik and Vladimir A Maksimenko et al," From Novel Technology to Novel Applications: Comment on 'An Integrated Brain-Machine Interface Platform With Thousands of Channels' by Elon Musk and Neuralink", 21 *JMIR Publications*, (2019)

mentally undergoing through the process of creating each and every musical notes. Specifically, for the music industry, AI could be an aid. However, the weightage accorded to works created with AI aid and those without must be demarcated in their creative value (a creativity composite score can be designed as a measurement to quantify AI efforts and human efforts). If not distinguished, it can effect artistic motivation.

CHAPTER III

FROM THE GLOBAL LENS

The Narrative in South Korea, Japan and the U.S.

South Korea, an East Asian country, is a country to look up to when techno-driven aspects are on the table. According to a website called Crunch base, "Artificial Intelligence, Data and Analytics, Science and Engineering, Software"[180], being one unified industry group, is growing at a rapid rate. The players in the picture include companies like Rebuilder A.I., CSLEE and Moreh. When you access the website of Moreh, it reads, "Moreh, the enabler of future AI". On a further reading, we realise how far technology can take us. The company basically develops software stacks, which can be simply understood as units or building blocks which run a model/application. These big names are enablers, if I may borrow the term Moreh uses. Enablers, coupled with regulators (individual people appointed behind regulating AIs), and lawyers, will shape the future of Media and Entertainment industry and thereby, determine the conduciveness of free flow of rights and its correct attribution.

South Korea's Samsung is leading in microchip making. The microchip is the basis for AI training. The country, thus, is the centre for bringing AI systems into daily usage. It becomes essential to understand the copyright laws of South Korea as the mark of initial learning about their perceptions as to rights of AI.

According to the copyright laws prevailing in the country, the author has two kinds of rights: Moral and Property Rights. The former includes rights pertaining to publication, choosing to adhere to the basic form of the work by excluding alteration to structure, content, etc. The latter extends to reproduction of the work, performance, dissemination, adaptation, etc. Now, author is a person who has these rights but ownership is a distinct concept from authorship. In layman terms, author is the one who invests the creativity of the mind and creates a new work either textual or visual. However, ownership can be attributed to an individual or an institution in

[180] South Korea Artificial Intelligence Companies available at https://www.crunchbase.com/hub/south-korea-artificial-intelligence-companies (last visited on August 13, 2023).

"whose name" the work is created.

This is to say that ownership and authorship may not necessarily be attributed to the same entity. The second most important aspect to be understood through these laws is that there is a concept of a *"related right holder"*. This entity is not the author of the original work but 'uses' the work in some capacity, for instance, as a performer. So, while such a person uses the work and some of the rights may extend to this entity, this person is neither the author nor the owner of the copyrighted work.

Such distinctions drawn can be helpful to understand how the rights are to be shared with the AI. The conflicts in essence include:

1) Who should be considered the author?
2) If AI is the author, is there a breach of artistic integrity and dignity?

To address the first question, the AI can be treated as a 'related right holder'. This aligns more with the procedure it follows to deliver outputs. The AI based on algorithms, assesses, analyses, produces or suggests. This is data-driven and while the content created is plagiarism-free, it is not an output of creativity. In copyrighted works, the foundation is creativity which is unique to humans. Therefore, instead of enabling authorship or ownership rights to the AIs, they may be treated as 'related right holders'. If our inquisitiveness leads us into thinking that whether AI should have rights in the first place, this thought can be comfortably dismissed. The rationale, I wish to put forward, is that AI is like an artificial person, regulated by people, and people are highly capable of infusing the system with their ideas and mindscapes. What an AI does or produces, or even reproduces, is expression of data but that data is pushed into by people. The humanistic tendencies, firstly, must be acknowledged at some level and lastly, rights and duties are linked. When we give rights to AI, duties of such people shall be shaped over time. In the regulatory sphere, this will bring coherence between the IP rights and regulators of such technological innovations.

Linking the first question to the second, if we borrow the concept of 'related right holder', any AI has rights but limited ones. The regulator of AI can have a separate set of rights known as 'regulator rights'. The issue arising when we search for solutions to tackle questions of authorship is that we are waiving novelty in the first place and confining ourselves to merely authorship and ownership. The need of the time is to introduce new terminologies with well-defined rights. To an extent whatsoever, the regulator may be held responsible for any 'wrongs' that the AI commits depending on the quantum of damages caused and the gravity of loss. This, in no way, affects artistic integrity and dignity, as long as AI is not claiming the works of other authors or copying their unique styles, such that prima facie, the impression is of a counterfeit.

To take a step beyond, may be certain generic wrongs and associated amount of damages can be pre-determined for the ease of carrying business and avoiding multiplicity of IP pending cases.

The Japanese are responsible for supply of "semiconductor manufacturing equipment". This is the rock behind AI enabling microchips. Linkages can be established between the functioning in the AI industry in South Korea and Japan. Apart from the economic side of things, the entertainment industry in Japan is a curious case for production of anime. AI can easily create graphics and thus, facilitate both creativity and chaos in the entertainment industry. It can copy voiceover artists' peculiar vocal inputs and cause a stir related to identification, thereby hampering rights. Voice recordings and visual creations are subject to the threat by AI suffusing the anime world of entertainment.

The copyright laws in Japan introduce us to provisions that embody '*definitiveness'*.[181] The principle of limitation is essential to the copyright law. For instance, "part of a work" implies copying not more than half of the original work. The provision imbibes a restrictive nature as to copying but does not hinder utility derived out of copyrighted works. If applied to the AI sphere, copying may be allowed but to an extent permissible. Even if extracts or excerpts are re-produced by AI, a cap on its extent will ensure that the copyright strikes are not frequent and it does not become a pervasive force on authorship rights. This definitiveness is the root of an arc of flexibility between AI and creators in which the basket of rights does not overweight on just one side.

"In the end, the American dream is not a sprint, or even a marathon, but a relay…"-These words always create a ripple of resonance. Like one runner halts and the other starts, the generation of AI is a new lap altogether, and one, the Americans as generational citizens cannot choose to ignore. AI is now a part of the American dream which is to rise from nothing substantial to something meaningful. The knowledge and capability to use AI is what will narrow the rift between machines and humans. "The future is AI", something heard and said on repeat. The reason is simple. There is huge scope for innovation and the wonders leave us mesmerized. The US is no exception to this global relay race of integrating with the reforms AI introduces into the IP world.

According to the CSR Report, particularly in generative AI, clouds hover when we try to determine the holder of copyrights. The US copyright laws extend to human agency and not to AI. The use of creativity of a human and by a human is what makes a work eligible for

[181] About Copying Service and Copyright available at https://www.ndl.go.jp/en/copy/copyright/index.html#law3 (last visited on August 14, 2023)

copyright protection. In the same report, Mr. Stephen Thaler had put forward the contention that machines can author works and the copyright laws do not mandate human intervention. His arguments were heavily in favour of giving rights to machines as authors. One of the gravest possibilities is the '*question of liability'*. If any machine is to be designated as an author, will the punishments furthering justice, be realized in a meaningful way. This is to say that even if, hypothetically speaking, machines or AI is made liable, any sort of punishment directed towards it seems meaningless. The idea that a machine is being held for its wrongs does not sit well with the way our rationality functions. Therefore, human intervention cannot be avoided when dealing with questions of liability.

Another point worthy of mention is that of *'initial copyright owner'*. Some may consider generative AI to be an initial copyright owner. However, even then questions of liability cannot be waived. If the AI commits copyright infringement, we will be asking the same questions running in a loop.

Fair use would imply what we took in from Japan, the extent of copied work and the extent to which there is resemblance on face value. Many AI companies can argue that use within limits and for purposes of efficiently training will not amount to copyright infringement and it is a valid statement. However, it is post this scenario that we must understand the consequences of overstepping the boundaries and tampering with original works to completely destroy his essence or produce a copy so accurate that it is nothing but the original work with little modifications to skip copyright infringement strikes.

Whether it is South Korea, Japan or the US, all have embarked on a journey to unravel the answers to fundamental questions and the way is a zigzag one. Some of the findings to keep in our baskets are addressing the questions of liability, especially criminal liability, understanding that certain accommodative stances will require newer concepts, international borrowing should be a go-to method and lastly, it is a global issue not specific to just a single country.

The Viciousness of Dark Net

Dark Net is the other side of the Web. It lurks in the shadows of the internet. Whether we look up a word on any search engine, order online, create posts, etc. all have a digital footprint which makes it easy to identify our presence in the cyber space. The Internet Protocol or the IP address enables us to track down the source of servers. All this is overturned when we talk about the dark net.

According to an article of the Duke University Press[182], Dark Net is "largely beyond the reach

[182] David Omand, "The Dark Net: Policing the Internet's Underworld", 32 *World Policy Journal*, 75-82 (2015-16)

of law enforcement". The web as a platform diverges into two branches, surface web and deep web. What we are acquainted with is the surface web. The positivity of surface web is 'control' of information, community guidelines, ability to track down fraudsters and criminals, create a safe marketplace and so on. On the other hand, the swore-in rule of Dark Net is 'anonymity'. In the garb of anonymity, all those activities which would otherwise invite criminal liability or scathing criticism are conducted with utmost deftness. We can understand dark net like a layered system in which each layer is disconnected from the other. The flow of any type of information goes from layer to layer but without being identified or leaked. It almost sneaks in these layers and reaches the source without revelation of what it is.

This is a potential threat, primarily for national security. Many Islamic fundamentalists, ones inclined towards terrorist propagandas, use the dark net to facilitate mobilization of people. Many a time's politicians to give effect to their political vendettas use the Dark Net to give effect to their course of action. Another concern is a commercial one.

The Dark Net has created a parallel marketplace where everything imaginable may be purchased and sold. Consumer loyalty and seller credibility is maintained otherwise the smooth functioning and its very existence cannot be vouched for. The viciousness of Dark Net will entail considerable risks for usage in AI outputs. For instance, AI may be used to mimic and completely copy the voice modulations, tone, quality, etc. of a political leader and the same may be securely circulated in the Dark Net cyberspace. This will not only propel cyberspace intimidation but shall lead to actuating in the real space. AI will deliver and the circulation of output on the Dark Net leaves one's hands tied as it will be unregulated. This also implies that there shall be no way to track the organization behind the AI. We loop back to the question- 'Who is to be held liable?'

U.S. sowed the seeds of Tor, anonymity-maintainer software. The object was to maintain the anonymity of military data. However, since its inception, many types of software find a place on the Dark Net, easily downloadable and usable. AI then, in connection to Dark Net, is a medium to spread false information and escape liability. Releasing content or solely using AI systems to safeguard identity and reduce human intervention to mitigate even an iota of chance of identity revelation may turn out to be the new cyberspace itinerary.

In Totality: The Repercussions for Media and Entertainment Industry

Firstly, the *debate between limits of fair dealing and copyright infringement* is an ongoing one. Under Section 51 of the Copyright Act, 1957, provisions as to what constitutes a copyright infringement are defined. When a non-licensee does an act which is the sole prerogative of the owner of copyrights, sells, hires, distributes, exhibits, imports infringing copies or being profit-

motivated, allows for communication of work to public and thereby infringes, is said to commit a copyright infringement. On the other side, for "private use, criticism, review, reporting current events, reproduction for any purpose related to judicial proceeding or meant for use by Legislature members or even reading and recitation in public of extracts, etc." gets immunity on grounds of fair dealing. Now, the doctrine of fair use is prevalent in the US, embodies in Section 107 of the US Copyright Act. Though different, there are similarities between fair use and fair dealing.

What the AI leading companies may do is argue that content generated was meant for fair dealing and there is no copyright infringement. This is true only for those specific cases which fall under Section 52 of the Act and none other. The provisions limit what acts can be done and therefore, there are limits to fair dealing. As long as the restrictive concept of fair dealing is practiced, they are no infringement by any AI on legal grounds as infringement and rights, both will be attributed to a person. For example, if any artist makes a painting using AI of a work of architecture, the copyright is with the author and there is not infringement as long as it falls under fair dealing. However, a different debate still continues as to whether a human person or an AI regulated entity should be given rights over the work.

Secondly, *artistic integrity and dignity* will be affected if an artist's work is copied to a great extent. An artist puts in thoughts and always, it is an expression of idea. 'Idea' is possessed by human beings. It is idiosyncratically a characteristic of human beings. There are two series of developments involved distinguished on the basis of consent and reliance. If any artist willingly takes the support of AI for creation of his works, there can be a composite calculation, probably based on advance algorithms as to how much content is AI generated. The rights may then be shared between AI regulators, which are persons and human entity. However, again the problem of accurate quantification and means to measure the weightage of ideas expressed against AI outputs is a cumbersome and confusing task. If, however, there is no consent and AI generates/uses content which is copyrighted, not amounting to any fair use, there is a clear infringement and it affects rightful acknowledgment of artistic endeavors.

Thirdly, *the laws in place and its extension to recently discovered problems* may not give complete solutions. As quite visible in the first two points of discussions, there is a void which needs to be filled. One of the problems is that AI does not fit into the shoes of an author or an owner. As the technological space is ever advancing, we need a new type of identity for AI, so that they can be recognized as potential creators, and for the purposes of liability, human regulators may be held responsible.

Fourthly, *the paradigm shift in the way of utilizing human capabilities* brings us to our next

point of discussion. If the way we look at things gets a perspectival shift, human capabilities can be utilised to drive AI-driven platforms making it more secure against copyright infringements. Humans, as regulators imply some sort of control. This control can be exercised when machines or AI err.

Fifthly, *instances of violence and public disturbances* are daily witnessed. If we imagine a world where deepfakes become reality and blackmailing young actors is simplified or the lyrics of a song by any lyricist is tampered with to incite violence affecting his deeply-felt motive, it will cause overflow of false narrative into the public domain and henceforth, will affect the participating units of the Media and Entertainment industry.

Sixthly, *freedom of press and artistic expression in cyberspaces* is intricately linked. All of us may have come across media showing fabricated videos. On WhatsApp, information which is seemingly taken as true, is circulated and successfully creates false impressions. Article 19 under the Indian Constitution grants freedom of press. If the media tends towards ethical dissemination of information, circulation of deepfakes and fabricated videos can be checked. Tampering with artistic outputs, for instance a short movie, to re-create and re-arrange the scenes and the dissemination of same through media, is not only copyright infringement but also misuse of freedom to press, as there is no fact check.

Seventhly, *charging content with plagiarism and damage to originality* is another rampant issue. In today's times, the reliance on software's like ChatGPT causes a knock down of thinking capacities. In one of the articles by IBM, Rob High pointed out that "It is not our goal to recreate the human mind." While AI can be an aid, it must not become a thing to depend on impairing our very own creative senses.

Lastly, *human capital development* is crucial for the economy. The population of India is the largest in the world. To tread on a path of economic development not only in terms of GDP but also poverty exclusion, the population can be instrumental. Particularly, in the light of media and entertainment industry, human capital is the driving force, the people are the mind of the industry. The development in the technological field of AI has a direct impact on the industry people as issues of copyright infringement and fair dealing continue to percolate the media and entertainment sphere. Therefore, it becomes extremely important to address these issues which are linked to innovation, IP laws, technology and the progress of the country at large.

CONCLUSION

Peter Drucker had rightly remarked, "The ultimate resource in economic development is people". Whether it is AI operations, copyright infringement issues, or repercussions for the media and entertainment industry, the techno-legal sphere is linked to economic development.

This is all based out of human capital. What we need right now is to understand the interplay of novelty and standard legal questions, and create accommodative spaces for humankind and technology to stay and grow together, but at the same time, man driving technology and not the reverse overpower by technology on man. Whether it is data flows, text mining or analytics, etc. whichever new technology drives the cyberspace and impacts the real space, must be in coherence with the culture, ethics and values of the human society. Therefore, at the junction of AI and IP, there is a constant influx and out flux of innovative tendencies, and over time, man shall become more efficient in dealing with it.

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Emerging Challenges in Copyright Protection for Cinematography: An Analysis of Digital Piracy and Streaming Platforms

Ketan Makharia[183]

ABSTRACT

The advent of digital technology has undeniably ushered in a paradigm shift in the realm of film production, distribution, and consumption. While these technological strides have opened up unprecedented opportunities for filmmakers, they have also engendered a plethora of challenges pertaining to the safeguarding of cinematographic copyrights.[184] *In this scholarly discourse, we present a meticulous analysis of two pivotal challenges: digital piracy and the ascendance of streaming platforms. Our investigation endeavours to unravel the ramifications of these challenges on the film industry, copyright holders, and the broader landscape of intellectual property rights. This phenomenon has engendered substantial financial losses for filmmakers and copyright holders, while concurrently eroding the incentive for creative ingenuity and innovation within the industry. This scholarly exposition delves into the multifarious forms of digital piracy, encompassing torrenting, streaming piracy, and illicit downloading, to proffer a comprehensive comprehension of the obstacles confronting copyright holders. Moreover, the proliferation of streaming platforms has metamorphosed the landscape of film dissemination. These platforms proffer a convenient and cost-effective conduit to an expansive reservoir of cinematic treasures; however, they simultaneously engender complex copyright quandaries. Licensing agreements between streaming platforms and copyright holders oftentimes evolve into contentious disputes, as issues pertaining to revenue sharing, territorial rights, and the duration of licensing agreements come to the fore. Additionally, the advent of user-generated content on certain platforms has instigated concerns regarding the unauthorized employment of copyrighted materials and encroachment upon performers' rights. This scholarly abstract critically scrutinizes these challenges, accentuating the imperativeness of robust copyright enforcement mechanisms and equitable remuneration for copyright holders and performers in the era of streaming. To effectively address these*

[183] LL.B. ISBM University, Chhattisgarh.

[184] Chandrachud, Chintan. "A dual system of copyright protection for films: should India go the Norowzian way?" Journal of Intellectual Property Law & Practice 5.3 (2010): 163-170.

challenges, this research posits a multifaceted framework that amalgamates legal, technological, and industry-wide initiatives. Fortifying copyright laws and enforcement mechanisms assumes paramount importance in deterring digital piracy.[185] Furthermore, user education regarding copyright infringement and the promotion of legitimate avenues for film consumption can foster a culture of reverence for intellectual property rights. In conclusion, the labyrinthine challenges entailed in safeguarding cinematographic copyrights in the digital age are multifaceted and intricate. The pervasive quandary of digital piracy and the rapidly evolving landscape of streaming platforms necessitate a holistic and collaborative approach. By addressing these challenges in a concerted manner, we can cultivate a creative ecosystem that espouses and safeguards the rights of filmmakers, copyright holders, and performers. This research serves as a promising steppingstone for further exploration of these challenges, proffering insights and recommendations to inform efficacious strategies for the protection of cinematographic copyrights.

Keywords: Copyright protection, Digital piracy, Unauthorized distribution

Introduction

The landscape of film distribution and consumption in India has undergone a significant transformation with the rapid growth of streaming platforms. Platforms like Netflix, Amazon Prime Video, and Disney+ Hotstar have revolutionized the industry[186] by offering viewers convenient access to a vast library of films, providing them with flexibility and choice. While the rise of streaming platforms has brought numerous benefits, it has also introduced complexities in copyright licensing that demand careful attention.

This article delves into the growth of streaming platforms in India, analyzing their impact on the film distribution ecosystem. It examines the challenges that arise in licensing agreements and revenue-sharing models between streaming platforms and copyright owners. Additionally, it explores the complexities surrounding territorial rights and licensing disputes, as well as the implications of user-generated content for copyright infringement and performers' rights in the streaming era.[187]

The Growth of Streaming Platforms in India

The advent of streaming platforms has reshaped the film distribution landscape in India,

[185] Blevins, John. "Uncertainty as enforcement mechanism: The new expansion of secondary copyright liability to Internet platforms." Cardozo L. Rev. 34 (2012): 1821.
[186] Mahendher, Sheetal, et al. "Impact of COVID-19 on digital entertainment industry." UGC Care J 44 (2021): 148-161.
[187] Gervais, Daniel. "The tangled web of UGC: Making copyright sense of user-generated content." Vand. J. Ent. & Tech. L. 11 (2008): 841.

gaining significant popularity among viewers. These platforms provide a wide range of films and television shows at viewers' fingertips, offering the convenience of online streaming and accessibility across various devices. This shift in consumer behaviour has had a profound impact on traditional distribution channels such as cinemas and physical media.

Challenges in Licensing Agreements and Revenue-Sharing Models

Negotiating licensing agreements between streaming platforms and copyright owners presents a primary challenge in the industry. These agreements determine the availability of films on the platforms and establish revenue-sharing arrangements. However, reaching mutually beneficial terms can be complex. Factors such as content valuation, duration of licensing agreements, and revenue allocation to copyright owners require careful consideration.[188]

Territorial Rights and Licensing Disputes

Territorial rights play a crucial role in licensing agreements for film distribution. Copyright owners typically grant licenses for specific territories, allowing streaming platforms to offer content within those regions. However, territorial restrictions often lead to licensing disputes, particularly when viewers demand access to content that may not be available in their country or region. To enhance viewer accessibility, there have been calls for more globalized licensing models and the removal of regional barriers.

Complexities Arising from User-Generated Content

The rise of streaming platforms has also resulted in the proliferation of user-generated content. Users can create and share their own videos, remixes, and other forms of content on these platforms. While user-generated content enhances viewer engagement, it introduces complexities in terms of copyright infringement.[189] Unauthorized use of copyrighted materials, such as film clips, soundtracks, or performances, raises concerns about copyright infringement and the rights of copyright owners to control the use of their works.

Implications for Copyright Infringement and Performers' Rights

The presence of user-generated content on streaming platforms raises important questions regarding copyright infringement and performers' rights. Streaming platforms have a responsibility to ensure that user-generated content does not infringe upon the rights of copyright owners. The liability of streaming platforms for copyright infringement depends on factors such as their knowledge of infringing content and their response to takedown requests. Additionally, performers' rights, including the right to authorize or prohibit the recording,

[188] Savelyev, Alexander. "Copyright in the blockchain era: Promises and challenges." Computer law & security review 34.3 (2018): 550-561.

[189] Christou, Sophia, and Alana Maurushat. "'Waltzing Matilda'or 'Advance Australia Fair'? Usergenerated content and fair dealing in Australian copyright law." Media and Arts Law Review 14.1 (2009): 46

reproduction, and public performance of their works, need to be protected in the streaming era.

Digital Piracy: A Threat to Copyright Protection

In the digital age, online piracy networks pose a significant threat to copyright protection in the film industry. This section explores the rise of online piracy networks, the various forms of digital piracy, and their detrimental effects on the film industry. It also examines the legal framework for copyright protection in India, focusing on the Copyright Act of 1957, the challenges in enforcement and prosecution of digital piracy, and the role of the Indian Copyright Office and enforcement agencies in combating this growing menace.[190]

The Rise of Online Piracy Networks

Digital piracy refers to the unauthorized reproduction, distribution, or sharing of copyrighted materials, including films, through online platforms. The internet and advancements in digital technology have facilitated the rise of online piracy networks, making it easier to access and distribute copyrighted content without authorization.[191] This has severe implications for the film industry.

Forms of Digital Piracy

Several prevalent forms of digital piracy pose a threat to copyright protection in cinematography:

1. Torrenting: Peer-to-peer (P2P) file-sharing networks allow users to download and share files, including copyrighted films, through torrent files.[192] These decentralized networks make it challenging to trace and control unauthorized sharing.

2. Streaming Piracy: Unauthorized streaming of copyrighted content, including films, occurs through various websites and platforms. These platforms offer users access to a vast library of films without obtaining proper licenses or permissions.

3. Illicit Downloading: This form of piracy involves the unauthorized downloading of copyrighted films from websites, file-sharing platforms, or other sources. Users obtain copies of films without paying or adhering to copyright laws.

Financial Losses and Impact on Creativity and Innovation

Digital piracy has severe financial implications for the film industry, resulting in substantial losses for copyright owners and filmmakers. The revenue that should have been generated through legitimate channels such as ticket sales, home video sales, and digital distribution is

[190] Banerjee, Arpan. "Contemporary challenges of online copyright enforcement in India." (2019): 173- 191.
[191] Mittal, Raman. "P2P Networks: Online piracy of music, films and Computer software." (2004).
[192] Aked, Symon. "An investigation into darknets and the content available via anonymous peer-to-peer file sharing." (2011).

significantly affected by piracy. Moreover, piracy undermines the incentive for creativity and innovation in the film industry.[193] The substantial investment required for filmmaking, combined with the uncertainty of returns due to piracy, discourages risk-taking and limits artistic expression, hampering the growth and diversity of the film landscape.

Legal Framework for Copyright Protection in India

The Copyright Act of 1957 forms the primary legal framework for copyright protection in India, including provisions that apply to cinematographic works. Enforcing copyright protection in the digital age poses unique challenges.[194]

Copyright Act of 1957: Provisions related to Cinematography

The Copyright Act grants copyright protection to cinematographic works, including films and audiovisual works. It provides exclusive rights to copyright owners, including reproduction, distribution, public communication, and adaptation rights. These provisions safeguard the rights of filmmakers and copyright owners in India.

Challenges in Enforcement and Prosecution of Digital Piracy

Enforcing copyright protection and prosecuting digital piracy present several challenges. Identifying individuals or entities responsible for online piracy can be difficult due to the anonymity and global nature of the internet. Pirated content often originates from multiple sources, making it challenging to track and hold accountable those responsible for its distribution. Additionally, the dynamic nature of online piracy networks requires a proactive approach from enforcement agencies to stay ahead of infringers.[195] Limited resources and technical expertise pose obstacles to effective enforcement efforts.

Role of the Indian Copyright Office and Enforcement Agencies

The Indian Copyright Office, under the Ministry of Education, administers copyright-related matters in India. It is responsible for maintaining a comprehensive database of copyrighted materials, facilitating the registration process, and providing assistance to copyright owners and users.[196]

Enforcement agencies such as the Central Bureau of Investigation (CBI) and the Economic Offenses Wing (EOW) investigate and prosecute copyright infringement cases. Collaboration between these agencies, copyright owners, and other stakeholders is essential to identify and take action against infringers.

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[193] Raustiala, Kal, and Christopher Sprigman. "The piracy paradox revisited." Stan. L. Rev. 61 (2008): 1201.
[194] Aggarwal, Gunish. "Intellectual Property Rights and the Internet World." Int'l JL Mgmt. & Human. 1 (2018): 206.
[195] Branscomb, Anne Wells. "Anonymity, autonomy, and accountability: Challenges to the first amendment in cyberspaces." The Yale Law Journal 104.7 (1995): 1639-1679.
[196] Pandey, Neeraj, and Khushdeep Dharni. Intellectual property rights. PHI Learning Pvt. Ltd., 2014.

Court Precedents and Judicial Response

Landmark cases related to digital piracy in the film industry have shaped the legal landscape and provided guidance on copyright protection in the digital age. Obtaining timely injunctions against websites engaged in digital piracy remains a challenge. The legal process can be timeconsuming, and infringing websites often change domain names or employ other tactics to evade detection and continue their illegal activities. Swift and efficient judicial responses are necessary to prevent further infringement and mitigate financial losses.[197]

Scope of Intermediary Liability and Safe Harbour Provisions

The liability of intermediaries such as internet service providers (ISPs) and online platforms in copyright infringement cases is subject to debate. While they play a crucial role in enabling online communication and content sharing, they can inadvertently facilitate piracy. The interpretation and application of safe harbour provisions under the Information Technology Act are vital in determining the extent of their liability and the responsibilities they bear in combating digital piracy.[198]

Streaming Platforms: Complexities in Copyright Licensing

The growth of streaming platforms has revolutionized the film distribution landscape in India, providing viewers with unprecedented access to a vast library of films. However, along with the benefits, the rise of streaming platforms has brought about complexities in copyright licensing. This section explores the growth of streaming platforms in India, their impact on film distribution, challenges in licensing agreements and revenue-sharing models, as well as territorial rights and licensing disputes. Additionally, it examines the complexities arising from user-generated content and its implications for copyright infringement and performers' rights in the streaming era.

The Growth of Streaming Platforms in India

The streaming industry in India has experienced tremendous growth in recent years, with platforms like Netflix, Amazon Prime Video, and Disney+ Hotstar gaining significant popularity among viewers.[199] These platforms provide a wide range of films and television shows, offering convenience and accessibility across various devices. This shift in consumer behaviour has had a profound impact on traditional distribution channels such as cinemas and physical media.

[197] Rao, Justin M., and David H. Reiley. "The economics of spam." Journal of Economic Perspectives 26.3 (2012): 87-110.
[198] Barker, Diane M. "Defining the contours of the Digital Millennium Copyright Act: The growing body of case law surrounding the DMCA." Berkeley Technology Law Journal 20.1 (2005): 47-63.
[199] Patnaik, Ria, Reema Shah, and Upendra More. "Rise of OTT platforms: effect of the C-19 pandemic." PalArch's Journal of Archaeology of Egypt/Egyptology 18.7 (2021): 2277-2287.

Challenges in Licensing Agreements and Revenue-Sharing Models

Negotiating licensing agreements between streaming platforms and copyright owners presents a primary challenge. These agreements determine the availability of films on the platforms and establish revenue-sharing arrangements.[200] However, reaching mutually beneficial terms can be complex due to factors such as content valuation, duration of licensing agreements, and revenue allocation to copyright owners.

Territorial Rights and Licensing Disputes

Territorial rights play a crucial role in licensing agreements for film distribution. Copyright owners typically grant licenses for specific territories, allowing streaming platforms to offer content within those regions. However, territorial restrictions often lead to licensing disputes, particularly when viewers demand access to content that may not be available in their country or region. To enhance viewer accessibility, there have been calls for more globalized licensing models and the removal of regional barriers.[201]

User-Generated Content and Performers' Rights

The rise of streaming platforms has also resulted in the proliferation of user-generated content. Users can create and share their own videos, remixes, and other forms of content on these platforms. While user-generated content enhances viewer engagement, it introduces complexities in terms of copyright infringement. Unauthorized use of copyrighted materials, such as film clips, soundtracks, or performances, raises concerns about copyright infringement and the rights of copyright owners to control the use of their works.

Implications for Copyright Infringement and Performers' Rights

The presence of user-generated content on streaming platforms raises important questions regarding copyright infringement and performers' rights. Streaming platforms have a responsibility to ensure that user-generated content does not infringe upon the rights of copyright owners. The liability of streaming platforms for copyright infringement depends on factors such as their knowledge of infringing content and their response to takedown requests. Additionally, performers' rights, including the right to authorize or prohibit the recording, reproduction, and public performance of their works, need to be protected in the streaming era.

Legal Solutions for Copyright Protection

Addressing the emerging challenges in copyright protection for cinematography requires a comprehensive approach that includes legal solutions. This section explores various legal

[200] De León, Ignacio L., and Ravi Gupta. "The impact of digital innovation and blockchain on the music industry." Inter-American Development Bank.(Nov 2017). Available online: https://publications. iadb. Org/en/impact-digital-innovation-and-blockchain-music-industry (accessed on 23 June 2020) (2017).

[201] Chao, G. Chin. "Conflict of Laws and the International Licensing of Industrial Propety in the United States, the European Union, and Japan." NCJ Int'l L. & Com. Reg. 22 (1996): 147.

strategies to strengthen copyright protection in the digital age. It emphasizes the need for stricter penalties and deterrent measures, collaboration with internet service providers to block pirate websites, and international cooperation in combating cross-border piracy. Additionally, it delves into technological solutions such as digital watermarking and content identification algorithms, the role of blockchain technology in verifying ownership and licensing rights, and the importance of collaboration between copyright owners and streaming platforms in ensuring fair licensing agreements, revenue-sharing models, and efficient content moderation systems. Strengthening Copyright Laws and Enforcement Mechanisms to combat digital piracy effectively, it is imperative to strengthen copyright laws by implementing stricter penalties and deterrent measures. Existing laws should be revised to ensure they reflect the realities of the digital landscape and adequately address the severity of copyright infringement. Higher fines, criminal sanctions, and the possibility of imprisonment can serve as deterrents, dissuading potential infringers and reinforcing the importance of respecting copyright.[202]

Collaboration with Internet Service Providers to Block Pirate Websites

Collaboration with internet service providers (ISPs) is crucial in the fight against digital piracy. ISPs can play an active role in preventing access to pirate websites by implementing technical measures to block them.[203] Cooperation between copyright owners, enforcement agencies, and ISPs can lead to effective blocking mechanisms, making it harder for users to access pirated content and reducing the reach and impact of digital piracy.

International Cooperation in Combating Cross-border Piracy

Digital piracy knows no boundaries, and effective copyright protection requires international cooperation. Collaboration between countries can facilitate the exchange of information, resources, and best practices to combat cross-border piracy effectively. Agreements and treaties that address copyright infringement and establish mechanisms for cooperation and enforcement should be encouraged to create a global framework for copyright protection.

Technological Solutions for Copyright Protection

Technological solutions play a significant role in copyright protection. Digital watermarking involves embedding unique identifiers within digital content, allowing copyright owners to track and identify their works. Content identification algorithms utilize advanced algorithms and artificial intelligence to identify and flag potentially infringing content across various online platforms. These technological tools can aid in detecting and preventing unauthorized

[202] Faure, Michael. "Effective, Proportional and Dissuasive Penalties in the Implementation of the Environmental Crime and Ship-source Pollution Directives: Questions and Challenges." European Energy and Environmental Law Review 19.6 (2010).

[203] Elkin-Koren, Niva. "Making technology visible: liability of internet service providers for peer-to-peer traffic." NYUJ Legis. & Pub. Pol'y 9 (2005): 15.

distribution of copyrighted films, providing valuable evidence in copyright infringement cases.

Role of Blockchain Technology in Verifying Ownership and Licensing Rights[204]

Blockchain technology offers a promising solution for verifying ownership and licensing rights in the digital era. By utilizing decentralized and immutable ledgers, blockchain can establish a transparent and tamper-proof record of ownership and licensing agreements. Smart contracts can automate royalty payments, ensuring that copyright owners and performers receive fair compensation. Implementing blockchain technology in the film industry can enhance trust, streamline licensing processes, and reduce disputes related to ownership and licensing rights.

Collaboration between Copyright Owners and Streaming Platforms

Collaboration between copyright owners and streaming platforms is essential to establish fair and transparent licensing agreements. Copyright owners should negotiate licensing terms that adequately compensate them for the use of their works on streaming platforms. Revenue-sharing models should be designed to ensure equitable compensation for filmmakers and performers, considering the value of copyrighted content and the revenue generated by streaming platforms.

Revenue-sharing models and equitable compensation for filmmakers and performers:

Streaming platforms should adopt revenue-sharing models that provide fair compensation to filmmakers and performers. Transparent accounting practices and regular reporting can enhance trust between streaming platforms and copyright owners. Additionally, mechanisms should be in place to ensure that revenue generated from streaming services is distributed equitably among all stakeholders, including actors, musicians, directors, and producers.[205]

Content moderation systems and prompt response to takedown requests:

Streaming platforms must implement robust content moderation systems to prevent the unauthorized use of copyrighted materials by users. Efficient mechanisms for reporting and takedown requests should be in place, enabling copyright owners to promptly notify streaming platforms of infringing content. Streaming platforms should respond promptly to these requests and take necessary action to remove infringing content from their platforms.

Conclusion and Suggestion

The growth of streaming platforms in India has revolutionized the film distribution landscape, providing viewers with unprecedented access to a vast library of films. However, this growth

[204] Zhang, Zehao, and Li Zhao. "A design of digital rights management mechanism based on blockchain technology." Blockchain–ICBC 2018: First International Conference, Held as Part of the Services Conference Federation, SCF 2018, Seattle, WA, USA, June 25-30, 2018, Proceedings 1. Springer International Publishing, 2018.

[205] Coff, Russell W. "The coevolution of rent appropriation and capability development." Strategic Management Journal 31.7 (2010): 711-733.

has also brought forth complexities in copyright licensing that require careful consideration and resolution. This article has explored the impact of streaming platforms on film distribution, the challenges in licensing agreements and revenue-sharing models, territorial rights and licensing disputes, as well as the complexities arising from user-generated content and its implications for copyright infringement and performers' rights. The rise of streaming platforms has undoubtedly provided numerous benefits, allowing viewers to enjoy a wide range of films conveniently and on-demand. However, it has also presented challenges in negotiating licensing agreements and revenue-sharing models between streaming platforms and copyright owners. Balancing the interests of both parties is crucial to ensure fair compensation for copyright owners while enabling streaming platforms to offer a diverse and appealing content library. It is essential for stakeholders to engage in transparent and collaborative discussions to establish licensing models that are mutually beneficial and promote the sustainable growth of the film industry.[206]

Territorial rights and licensing disputes pose additional challenges in the streaming era. With viewers increasingly seeking global content access, the industry must explore ways to overcome territorial restrictions and embrace more flexible licensing models. Global licensing agreements that allow for broader content availability can enhance viewer satisfaction and reduce the motivation for piracy. Additionally, efforts should be made to streamline licensing processes and ensure efficient mechanisms for resolving licensing disputes, facilitating smoother collaborations between copyright owners and streaming platforms.

The presence of user-generated content on streaming platforms raises concerns about copyright infringement and the protection of performers' rights. Streaming platforms need to implement robust content moderation systems to prevent unauthorized use of copyrighted materials. Clear guidelines and mechanisms for reporting and takedown requests should be in place to address copyright infringement promptly. At the same time, performers' rights should be safeguarded, ensuring their ability to authorize or prohibit the use of their works in user-generated content. Collaboration between streaming platforms, copyright owners, and performers' associations is crucial to establish frameworks that protect the rights of all stakeholders while encouraging creativity and user engagement.[207]

To address the complexities in copyright licensing, a multi-faceted approach is necessary. It starts with strengthening copyright laws and enforcement mechanisms to provide a robust legal

[206] Andriof, Jörg, et al. Unfolding stakeholder thinking: Theory, responsibility and engagement. Routledge, 2017.

[207] George, Gerard, Anita M. McGahan, and Jaideep Prabhu. "Innovation for inclusive growth: Towards a theoretical framework and a research agenda." Journal of management studies 49.4 (2012): 661- 683.

framework for combating digital piracy. Stricter penalties, deterrent measures, and international cooperation can create a deterrent effect and enhance the effectiveness of copyright enforcement. Collaboration with internet service providers is vital in blocking access to pirate websites and preventing the proliferation of infringing content.

Technological solutions also play a significant role in copyright protection. Digital watermarking and content identification algorithms can aid in detecting and preventing unauthorized distribution of copyrighted films. Blockchain technology holds promise in verifying ownership and licensing rights, ensuring transparency and reducing disputes. However, ethical considerations and careful implementation are necessary to balance copyright protection with individual privacy and freedom of expression.

To ensure fair licensing agreements, revenue-sharing models, and efficient content moderation systems, collaboration between copyright owners and streaming platforms is essential. Transparent negotiations and agreements should be established, considering the value of copyrighted content and the revenue generated by streaming platforms. Revenue-sharing models should provide equitable compensation to all stakeholders involved in the creation and distribution of films. Content moderation systems should be robust and responsive, addressing copyright infringement promptly and effectively.

In conclusion, addressing the complexities in copyright licensing for streaming platforms requires a collaborative effort from all stakeholders. Striking a balance between the interests of copyright owners, streaming platforms, and viewers is essential for a sustainable and thriving film industry.[208] Clear licensing agreements, fair revenue-sharing models, efficient content moderation systems, and prompt response to takedown requests are crucial components of a robust copyright protection framework. By embracing legal solutions, leveraging technological advancements, and fostering collaboration, India can establish an environment that respects copyright, protects performers' rights, and ensures the continued growth and innovation of the film industry in the streaming era.

[208] Ubaldi, Barbara. "Open government data: Towards empirical analysis of open government data initiatives." (2013)

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Patents and Innovation in Pharmaceutical Sector: An Analysis in the Covid-19 Context

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ABSTRACT

Pharmaceutical innovation is not only related to human health, but also contributes to a country's overall strength in the field of life sciences. However, due to the high investment and unpredictability of success, pharmaceutical companies do not always pursue new drug research. Pharmaceutical innovation is intrinsically connected to the availability of incentives. Intellectual Property becomes a double-edged sword in pharmaceutical innovation. With regard to the current situation of global pandemic there exists many challenges to the access and global distribution of the vaccines predominantly for low and middle-income countries. IP rights more specifically patents have been blamed for being the major hindrance. Alternative manufacturers intending to develop, produce, and supply COVID-19 medical tools to enhance access face a legal labyrinth due to the vast portfolio of existing and emerging patents, non-patent IP, and other exclusivities. Monopoly rights provide MNCs with the power to decide the amount of access and affordability to people and also the power to control further innovation. Alternatively, the pharmaceutical industry claims that without ample IP protection there is no incentive to innovate and for further investment into R&D an ample profit should be gained. While at the instance of a global pandemic patent is in fact standing in the way of access to affordable treatment, taking away the patent rights all at once might do more harm than good.

Keywords: Patent, Pharmaceutical Innovation, COVID-19, Access, Affordability.

Introduction

The unquestionable impact of patents in spurring innovation is widely acknowledged. Nevertheless, it's crucial to recognize that there are certain scenarios where their influence can shift from being a positive driving factor to a potential impediment to innovation. While the role of intellectual property rights, particularly patents, in fostering creativity and innovation has remained steadfast over time, it is important to acknowledge that these rights have not been immune to critique. In certain contexts, such as the realm of healthcare, where progress, accessibility, and cost-effectiveness hold immense significance, patents have encountered

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censure for potentially impeding these vital aspects.

The historical track record of intellectual property rights, especially patents, in igniting the flames of inventive endeavors is well-documented. The assurance of exclusive rights and rewards has consistently acted as a driving force, encouraging individuals and organizations to channel their energies into groundbreaking solutions across a diverse array of industries.

However, this seemingly positive influence can become more complex when viewed within the intricate landscape of healthcare. While intellectual property rights are intended to safeguard innovations and encourage further development, they have come under scrutiny for their potential to hinder progress, particularly in scenarios where human well-being is at stake. This is particularly salient in the healthcare sector, where rapid advancements and unhindered access to life-saving treatments, medications, and technologies are of paramount importance.

The concern lies in the potential of patents to create barriers that limit the availability of essential healthcare solutions. The need for swift and widespread distribution clashes with the exclusive nature of patent protection, potentially causing delays in the deployment of critical interventions. Furthermore, the issue of affordability arises, as the costs associated with patented medical advancements can render them inaccessible to a significant portion of the population, particularly in regions with limited resources.

Another facet of the debate centers on the dynamics of innovation within the healthcare sector. Patents, while incentivizing individual inventors and entities, can inadvertently lead to fragmented research efforts. The competition for intellectual property rights can result in duplicated research, inefficient resource allocation, and limited collaboration among researchers. Such fragmentation can hinder the collective progress required to tackle complex health challenges efficiently.

In light of these complexities, it becomes imperative to strike a delicate balance between the advantages of intellectual property rights and the broader societal interests, especially in critical sectors like healthcare. While patents undoubtedly serve as a driving force for innovation, they must be examined critically and adapted to align with the unique demands of sectors where accessibility, affordability, and rapid progress are essential. This involves reimagining patent systems that incentivize innovation while fostering an environment of collaboration and equitable access to healthcare advancements. By doing so, we can harness the positive potential of patents while mitigating the potential barriers they may pose to advancement, availability, and cost-effectiveness, thus creating a more inclusive and impactful landscape for healthcare innovation.

The intricate interplay between patents and innovation stems from their dual roles as catalyst

and limitation. On one hand, patents furnish inventors and innovators with the assurance of exclusivity over their novel creations, creating an environment where individuals and entities are motivated to invest their resources, time, and expertise in pioneering solutions. The alluring prospect of reaping rewards through the safeguarding of intellectual property rights serves as a potent driving force that propels innovation across diverse domains. However, this incentivizing effect can sometimes transform into a hindrance, particularly in critical sectors like healthcare. The healthcare arena, marked by its immediate impact on human well-being and the urgency to address public health concerns, introduces complexities that may clash with the conventional patent framework. While intellectual property rights effectively safeguard innovations, they can inadvertently lead to restricted access to life-saving treatments, medications, and technologies. The excessive costs linked to patented medical solutions can create barriers that curtail accessibility, consequently obstructing the widespread distribution of vital interventions to those who require them the most. Moreover, the intricate relationship between patents and healthcare innovation extends beyond financial considerations. The patent system can result in fragmented research endeavors, where duplicated efforts and limited exchange of information hinder collective advancement. This fragmentation can undermine collaborative approaches to tackling intricate health challenges, potentially causing delays in progress and impeding the swift development of solutions.

As we navigate the intricate landscape of intellectual property rights, it is imperative to strike a nuanced balance between fostering innovation and ensuring the broader societal benefit. While patents undeniably provide a mechanism to reward inventors and ignite imaginative thinking, they should be approached with a discerning viewpoint that takes into account their potential drawbacks. Particularly in the healthcare domain, the importance of accessibility, affordability, and timely interventions should guide conversations concerning patent protection. By nurturing an environment that encourages innovation while concurrently prioritizing equitable access to crucial healthcare solutions, we can chart a course towards a future where the affirmative potential of patents is harnessed while concurrently mitigating their prospective hindrances to progress.

In light of the current global pandemic crisis, there are numerous barriers with regard to access and global distribution of vaccines, predominantly for low and middle-income countries. There are two sides to the discussion regarding patent and innovation especially in the pharmaceutical sector. On one hand the broad array of existing and emerging patents, non-patent IP, and other exclusivities creates a legal labyrinth for alternative manufacturers

attempting to develop, produce, and supply COVID-19 medical tools to enhance access.[210] While on the other hand the pharmaceutical industry claims that without ample IP protection there is no incentive to innovate and also that for further investment into R&D an ample profit should be gained.

Patent as a Barrier

There is widespread concern that patents may stymie the swift development of vaccines and therapeutics for Covid -19, making it inaccessible and unaffordable to third-world countries. These concerns are not always unfounded. There are circumstances where the existences of patents block further innovation. The IP holders have utmost control over the distribution of vaccines, medications, and treatments, which they may withhold according to their discretion thereby limiting access to such vaccines and medicine. The major issue is that the companies who holds the IP rights to the vaccines sells the vaccines to such developed and middle-income countries leaving the low-income countries hopeless. The intellectual property rights allow firms to demand exorbitant prices and profit from the pandemic, or to prioritise wealthy countries over those with less financial capacity.[211]

The vaccine R&D and manufacturing is often concentrated in such developed and sometimes developing countries as well. The pharmaceutical industry argues that even in the absence of patent protection in the case of COVID-19, the developing and least developed countries will not be able to manufacture the required vaccines and drugs due to the lack of manufacturing capacity and hence they point out that patents are not the main impediment for access and affordability, manufacturing capacity is. It is of course true that patent is not the only barrier. As a counter argument to this, the Indian Representative pointed out in the TRIPS Council meeting pointed out that if the developing and least developed countries which doesn't have enough manufacturing capacity to produce the required vaccines and therapeutics protected by IP, then the interest of such IP holders will not suffer and hence, the argument of lack of manufacturing capacity doesn't make sense.

The pharmaceutical companies state the example where even after Moderna announced that it will not exercise its patent rights, no other firm has manufactured the vaccine to show that patent protection might not be a barrier after all. In this particular case the mRNA technology used by Moderna to manufacture the vaccine is protected by numerous patents. Moderna has stated that they will not enforce their patent rights in relation to the vaccine but will do so in

[210] MSF, *Removing Intellectual-Property Barriers from COVID-19 Vaccines and Treatments for People in South Africa*, March 2022.

[211] Council for Trade-Related Aspects of Intellectual Property Rights, *Examples of IP Issues and Barriers in Covid-19 - Pandemic Communication from South Africa* (WTO, 23 November 2020).

relation to the surrounding patents, and they are also hesitant to licence it out.[212]

Examples of IP being a barrier and hindering development, production and supply -

a. Therapeutics:

Gilead Sciences signed a restrictive voluntary licence on its Remdesivir by excluding around half the world population.[213] The licence was with five generic manufacturers to enable more production and distribution of Remdesivir, an experimental treatment for COVID-19. The licence permitted the five generic producers to sell the drug in certain countries, but more than 70 countries were excluded. This meant that these 70 countries which were excluded would have to buy the medicine from Gilead at its monopoly pricing, and they would be blocked from accessing the generic version until 2031. Some other monoclonal antibodies like sarilumab and tocilizumab that are being tested for its potential to treat COVID-19 are under patent protection in many countries, this means that even if such antibodies show efficacy, the access to it might be challenging.[214]

b. Vaccines

Allele Biotech sued Regeneron, Pfizer and BioNTech for the patent infringement of the mNeonGreen fluorescent protein it used to develop COVID-19 vaccine. The alleged infringement was that that Pfizer and BioNTech for its COVID-19 vaccine BNT162 and Regeneron for its REGN-COV2 used the above-mentioned fluorescent protein without Allele's permission. These fluorescent proteins which is one of the most stable and brightest ones are utilised to view the molecular changes in order to comprehend the cell's response to therapies.[215]

Testing kit reagents [216]

Another example is that of the testing kit reagents. Roche provides testing kit reagents which is used as the buffer for running COVID-19 tests. Many COVID-19 labs in Netherlands which uses this testing kit reagent was not able to conduct mass COVID-19 tests during the initial stages of the pandemic due to the buffer shortage. Roche's refusal to make available the recipe for the buffer blocked the labs from manufacturing their own buffer and thereby increasing the testing capability. Later on, due to the pressure from the government the company had to agree

[212] Sudip Chaudhuri, "Patent Protection and Access to COVID-19 Medical Products in Developing Countries" *SSRN Electronic Journal* (2021).
[213] "Remdesivir Should Be in the Public Domain; Gilead's Licensing Deal Picks Winners and Losers," *Public Citizen*, 12 May 2020.
[214] MSF, *Proposal for a TRIPS Waiver from Intellectual Property Protections for COVID-19-Related Medicines, Vaccines, Diagnostics and Other Health Technologies*, 27 May 2021.
[215] Angus Liu, "Pfizer-BioNTech, Regeneron sued for patent infringement with COVID-19 products" *FiercePharma*, 6 October 2020.
[216] Supra 5.

to release the recipe.

N95 respirators [217]

There has been a shortage of N95 respirators, a type of protective mask which is protected by several patents held by the multinational company 3M, other healthcare companies, the US government and universities. The Governor of Kentucky in the United States called upon the 3M Company in early 2020 to release the patents to avoid the shortage. IP obstacles, such as patents, have intensified shortages of N95 respirators in hospital around the world.

From the above example it is quite clear that even though IP is not the only factor that might be a barrier to access and affordability as well as innovation, it most certainly plays a huge role as a block. An environment with no patent obstacles and no threat of lawsuit is more encouraging to product development and manufacturing. [218]

Patent - Not a Barrier

There are various factors that leads to innovation and similarly there are various factors that might affect access, affordability and innovation. Lack of manufacturing capacity, import duties, lack of infrastructure, stringent laws, in this case IP laws, are some of the factors that acts as a barrier to access, affordability and innovation.

Providing protection to innovations and later at the expiry of the term disclosing it to the world is a way to kindle people's creativity. According to Mansfield's (1986) study it was concluded that without a patent system 60% of medical inventions could not have been developed and 65% could not have been commercially introduced.

Because of the vaccine industry's inherent vulnerability due to the uncertain outcomes of clinical trials, changes in epidemiology, and a variety of other factors, intellectual property rights, patents in particular have long been regarded as a guarantee of return on R&D investment, but that too only if the vaccine is proven successful.[219] In the absence of patent protection, the problem of free riders arise and their incentive to invest in the filed decreases.

The innovation ecosystem is not as simple as it seems; it encompasses several actors, policies, initiatives, and programmes. The Global Innovation Index, for example, uses over 80 indicators to measure innovation capacity and performance, covering areas such as educational systems and institutions, research and development expenditure, scientific publications, IP applications,

[217] *Ibid.*
[218] Supra 3.
[219] Van Anh Le and Leah Samson, "Are IPRs and Patents the Real Barriers to COVID-19 Vaccine Supplies?," 18 *SSRN Electronic Journal* (2021).

access to capital markets, regulatory frameworks and business and market sophistication.[220] When there are so many factors involved it would be a misjudgement to emphasis on a single factor, that is, IP alone.

When the innovation provides effective results and if the people are not able to get their hands on it on affordable terms, in such cases patents acts a barrier. [221]The chances that absence of patent protection disincentivising pharmaceutical industry is high. It will also lead to a rise in counterfeit products. Counterfeit products in the health sector can be quite dangerous. The WHO has determined that counterfeiting is facilitated where "[…] there is lack of effective intellectual property protection".[222] There have been examples in Cameroon and Uganda where fake Covid-related treatment has been found.[223]

Often the argument of tragedy of common goods are also taken to support the patent system. The tragedy of common goods is a circumstance in which a person who has access to shared resources (common) will act purely in their own interests, resulting in resource depletion. When the patent protection is removed and when the goods come to the public domain and not properly allocated, this will result in the ripple effect of the tragedy of common goods.

The TRIPS waiver proposal was a cry for a complete waiver of all IP rights relating to COVID-19 which has the potential of backfiring on the society if as a result of it the patent holders decided to halt their current researches. Suspension of IP rights altogether need not necessarily result in speedy innovation and manufacture of vaccines and therapeutics.

Rajinder Suri, the Chief Executive Officer of Developing Countries Vaccine Manufactures Network (DCVMN) and Sai Prasad, the President of Bharat Biotech, an Indian vaccine manufacturer opined that removing IP Rights would not solve vaccine production concerns since practical issues lay in non-IP aspects such as manufacturing capacity, human resources, and know-how.[224]

The Max Planck Institute for Innovation and Competition in their recent position statement also endorses the view that "IP rights might so far have played an enabling and facilitating rather than hindering role in overcoming Covid-19, and that the global community might not

[220] Francis Gurry, "Some Considerations on Intellectual Property, Innovation, Access and COVID-19" *WIPO*, 2020*available at*: https://www.wipo.int/about-wipo/en/dg_gurry/news/2020/news_0025.html (last visited March 13, 2023).
[221] Francis Gurry, "Intellectual Property, Innovation, Access and COVID-19" *WIPO*, 2020*available at*: https://www.wipo.int/wipo_magazine/en/2020/02/article_0002.html (last visited March 6, 2023).
[222] WHO, *Counterfeit Drugs: Report of a WHO/IFPMA Workshop WHO IRIS*, 1992.
[223] Marius Schneider and Nora Ho Tu Nam, "Africa and counterfeit pharmaceuticals in the times of COVID-19," 15 *Journal of Intellectual Property Law & Practice* 417–8 (2020).
[224] Supra 10.

be better off by waiving IP rights, neither during nor after the pandemic".[225]

In circumstances where the patent holders refuse to license their intellectual property and when such refusal cannot be justified on objective grounds, such issues can be resolved by using available remedies like compulsory license for example, instead of holding all right holders. There is without a doubt a risk of excessive pricing and hence the issue access to vaccines but nothing which cannot be addressed by proper government interference.

Absence of IP rights might push the research institutes to abandon their researches. In the case of COVID-19 with the emerging new variants, such a situation will expose the humanity to mutated viruses without a solution to battle it. This shows that intellectual property is, in reality, a promoter of future breakthrough innovations, which in this case may even help rescue mankind. Lack of Intellectual rights may not be in the best interests of today's society, as it may function as a deterrent for researchers and pharmaceutical firms to do more research.

The treatments currently available for COVID-19 are based on researches and technologies of the past which was the result of the proper IP protection then. Even with researches willing to invest and face the risk, these technologies took decades to be developed. Given the circumstances, IP may be considered as the base on which the COVID-19 vaccine has been developed. The swift establishment of various partnerships surrounding COVID-19 was a result of the IP system where even the commercial rivals were ready to cooperate and share capital and intellectual resources.[226] It can be said that proper IP protection encourages the researchers and makes them comfortable to collaborate and share their knowledge and know how without the fear of free rider issues by ensuring that the information they shared will only be used for the agreed purposes.

When the patent rights and information are out in the public domain it helps the drug developers to fish out those players with the knowledge and technical expertise preferred by them. Equating the term "monopoly" to patent according to Prof. Edmund Kitch is one of the "elementary and persistent errors in the economic analysis of Intellectual Property", when in reality IP rights result in competing products in the market and thereby putting a cap on the ability of the manufacturers of the products to charge arbitrary and unaffordable prices.[227]

[225] Reto M. Hilty et al., *Covid-19 and the Role of Intellectual Property - Position Statement of the Max Planck Institute for Innovation and Competition*, 7 May 2021.

[226] Philip Stevens and Mark Schultz, "Why intellectual property rights matter for COVID-19 - Geneva Network - Intellectual Property Rights and Covid-19" *Geneva Network*, 2021*available at*: https://geneva-network.com/research/why-intellectual-property-rights-matter-for-covid-19/ (last visited March 8, 2023).

[227] *Ibid.*

The polio vaccine model [228]

The polio vaccine model is an example quoted by those who argues against IP rights during the pandemic. The polio vaccine which took around 15 years to be developed by Jonas Salk in 1955 was not patented by its inventor. The decision for the inventor to not patent the vaccine was to maximise its distribution. Several philanthropic donations were used to support polio vaccine development, and the endeavour was communal, which was trialed largely by volunteers.

The National Foundation for Infantile Paralysis looked into patenting the polio vaccine but concluded that it couldn't be patented due to prior art and that it would not have been considered a patentable invention by standards of the day. Given all the facts and circumstances the polio vaccine model cannot be used in the current pandemic context as the polio vaccine was developed in around 15 years whereas the pandemic situation is fairly new and also the vaccine development which is mainly done by big pharmaceutical companies focus more on profit than on philanthropic goals.

Pricing

The temporary monopoly rights that is granted to the patent holders gives them the power of pricing as well. In many countries the citizens do not have to pay for the vaccines but the government acquires these vaccines from the companies at a price which is sometime unaffordable to developing and least developed country governments. The companies sell the vaccines to the developed countries at a lesser cost than they sell it to developing and least developed countries. The reason for this might be the involvement of the developed countries in the research of vaccines.

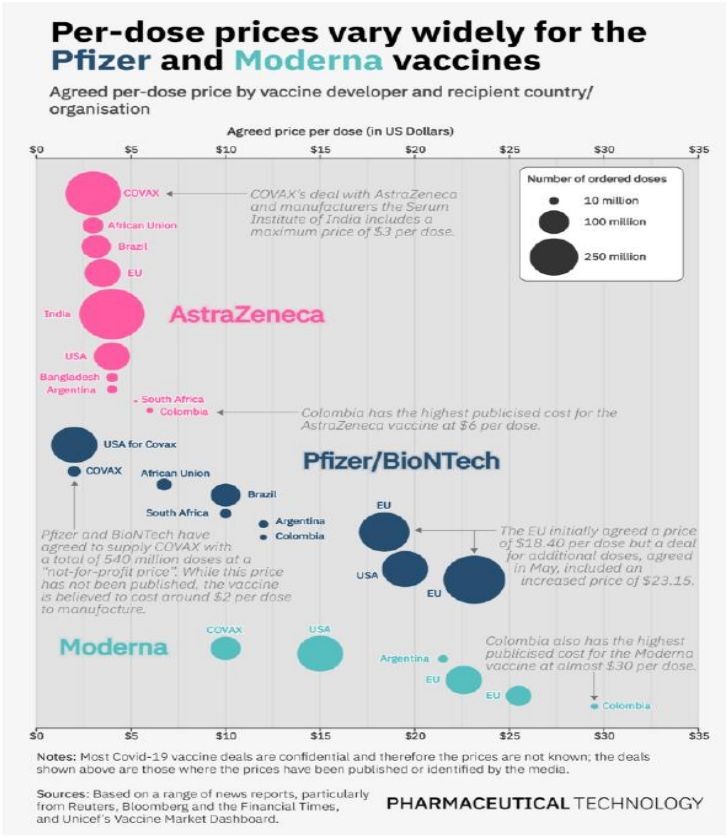
Based on computational process modelling, the expert analysts estimate that setting up regional hubs to transfer the successful technology and manufacture 8 billion doses of the mRNA vaccines in one year would cost $22.8 billion for the Moderna vaccine ($2.85 per dose), and $9.4 billion for the Pfizer/BioNTech vaccine ($1.18 per dose).[229]

The below figure shows the price various countries had to pay for obtaining vaccines from AstraZeneca, Pfizer, BioNTech and Moderna and the estimated number of ordered doses. The price that various countries paid are drastically different, for example, in the case of Moderna wherein US had to pay around $15 dollars for a dose of vaccine whereas Columbia had to pay

[228] Ami Neuberger and Ilan Noy, "The big barriers to global vaccination: patent rights, national self-interest and the wealth gap" *The Conversation*, 2021*available at*: https://theconversation.com/the-big-barriers-to-global-vaccination-patent-rights-national-self-interest-and-the-wealth-gap-153443 (last visited March 9, 2023).

[229] Zoltan Kis and Zain Rizvi, "How to Make Enough Vaccine for the World in One Year" *Public Citizen*, 2021*available at*: https://www.citizen.org/article/how-to-make-enough-vaccine-for-the-world-in-one-year/ (last visited February 26, 2023).

almost $30 dollars that is twice the amount US paid.



There might be various causes for this price discrepancy, including as a country's participation and investment in vaccine research and development, which could lower the price for them. The issue is that developing and least developed countries may lack the necessary capital and technology to fund R&D. As a result, the condition of affairs in such nations must be taken into account while determining the price for them.

Conclusion

The question to be asked is whether suspension of patent rights will act as a disincentive for the development of new innovations in this case, medical products? Stimulating R&D for innovation is the key economic justification for granting patents which is the anticipated outcome. But, when the aforementioned patents begin to prevent others from producing such a product, as in the instance of COVID - 19, the number of individuals who profit from the invention decreases, which is a negative outcome.

One of the most prominent complaints regarding suspending patent and other intellectual property protection in the context of COVID-19 vaccines and therapeutics is that it would jeopardize future medical advancements and leave us vulnerable to other diseases if the firms stopped research and innovation due to the lack of incentive to innovate. Innovation in pharmaceutical industry is risky and quite expensive, in such a case the lack of incentive and

without the power to set the prices so as to gain profit, the pharmaceutical firms may not find it practical to spend on R&D for new drugs. The argument against this is that the current vaccines and therapeutics is not the result of the investment and the research the pharmaceutical companies alone, public funding and global collaborations between various research institutions and the pharmaceutical industry had a huge role in the sift development of the vaccines.

Patent protection does have its advantages and disadvantages. It is a commonly held belief that patent protection serves as a significant catalyst for fostering innovation within various industries. This mechanism provides inventors and creators with a safeguard, assuring them of exclusive rights to their inventions for a specified period. This exclusivity, in turn, incentivizes investment in research and development, as individuals and companies strive to create groundbreaking solutions that can be patented, thereby reaping the benefits of their ingenuity.

However, the dynamics surrounding patent protection become more complex when viewed through the lens of extraordinary circumstances, such as a global pandemic. In such dire situations, where rapid and widespread access to life-saving innovations is of paramount importance, the traditional emphasis on exclusive rights and commercial gains may warrant reconsideration.

A pandemic, characterized by its swift and extensive impact on public health, necessitates a different set of priorities. The availability and affordability of essential medical treatments, vaccines, and technologies take precedence over conventional notions of intellectual property rights. The urgency to mitigate the widespread suffering and loss of life requires collaborative efforts, rapid information sharing, and unfettered access to vital resources. Patent protection, while crucial in ordinary times, can inadvertently impede progress in a pandemic scenario. By limiting the dissemination of critical knowledge and hindering the widespread production of necessary medical interventions, patents can inadvertently prolong the time it takes for solutions to reach those in need. This delay can be particularly detrimental when time is of the essence and countless lives are at stake.

Furthermore, the ethics of prioritizing profit over human well-being come into question during a pandemic. The patent system, designed to incentivize innovation through financial gain, may clash with the moral imperative to ensure that life-saving interventions are promptly accessible to all, regardless of their economic or geographical circumstances.

In essence, while patent protection undeniably fuels innovation in ordinary times, its limitations become glaringly evident when faced with a global crisis like a pandemic. The crisis underscores the need for a nuanced and adaptable approach to intellectual property rights, one

that balances innovation incentives with the immediate and widespread well-being of humanity. As we navigate the complexities of the modern world, it becomes essential to reevaluate and perhaps even adjust our perspectives on patents to better align with the collective good, especially when availability and affordability stand as crucial cornerstones in the face of unprecedented challenges.

Innovations therein can be incentivised via patent alternatives with lesser importance to patent but not wiping it off altogether. To fix the innovation, access and affordability issues for COVID-19, the pharmaceutical monopoly on vaccines and therapeutics should be broken and thereby the technology and know-how should be transferred to more manufacturers in developing and least developed countries.[230] This might result in increase of supply and decrease in price. It is obvious that patents grant firms monopolistic rights, which they utilise to control prices. The monopoly rights provide such multi-national corporations the power to decide how much access and affordability individuals have, as well as the capacity to restrict future innovation. During a pandemic, such power in the hands of profit-hungry MNCs would do no benefit to the people or the global health. Taking away the patent rights all at once might do more harm than good. Patent alone cannot work for better and faster innovation, access and affordability. Patent rights can be made less stringent and patent alternatives maybe introduced to work alongside of patents.

In conclusion we can say that IP in particular patent is both facilitator and a barrier and hence a complete absence of it altogether might not be ideal. At the instance of a global pandemic patent is in fact standing in the way of access to affordable treatment.

[230] Anna Marriott and Alex Maitland, *Policy Brief - the Great Vaccine Robbery,* 29 July 2021.

I P BULLETIN

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Anti-Competitive behaviour in the patented pharmaceutical industry: A study of the cases before the Competition Commission of India

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ABSTRACT

In this post-TRIPS era, the impact of intellectual property rights, especially patents on accessibility and affordability of medicines, is globally discussed. While some argue that these rights create barriers to access and affordability, proponents of the utilitarian perspective contend that IP laws incentivize the production and commercialization of new discoveries or creative works, resulting in overall social welfare benefits that outweigh the costs of these restrictive property rights. However, this argument holds true only if the societal benefits exceed the information and knowledge costs associated with granting IPRs. It fails to hold ground when IP holders engage in anti-competitive behaviour, which imposes a greater deadweight loss on society as the costs of exclusive rights outweigh the benefits of such legally restricted monopolies.

Various international conventions, including the International Covenant on Economic, Social and Cultural Rights (ICESCR), place obligations on states and their machineries to take affirmative measures in protecting and fulfilling the right of citizens to have access to safe and affordable medicines. This ensures that individuals can enjoy the highest attainable standard of health without barriers posed by patents. Consequently, it becomes essential for the state to actively prevent pharmaceutical patents from impeding accessibility and affordability of medicines, including by facilitating market entry and exit options. However, obstructions to achieving this public health goal may be created by patents as the exclusivity granted by patents allows pharmaceutical companies to maintain high prices, limiting affordability for individuals and healthcare systems. This can be particularly problematic in low-income countries, where the cost of patented medications can be prohibitive, leading to inadequate healthcare outcomes and a disparity in access to essential treatments. Balancing the need for innovation with ensuring public health is a complex challenge that requires careful consideration of intellectual property policies and strategies to promote affordable access to medicines for all. The recourse for such impediments created by patents does not lie in the patent law regime alone. In this context, by exploring the interplay between intellectual property rights, competition, and public health, this paper aims to shed light on common anti-competitive behaviour, including abuse of dominance, that are prevalent in the pharmaceutical industry, and thereby ultimately contributing to the ongoing discourse on striking a balance between fostering innovation and ensuring accessible and affordable medicines for all. It will also pay special attention to cases brought before the Indian Competition Authority, specifically concerning the Indian pharmaceutical industry. By examining these instances, one may gain a deeper understanding of the challenges posed by anti-competitive practices of a patent holder and explore potential solutions to mitigate their negative impact on the accessibility and affordability of medicines. Through comprehensive analysis and evaluation, this study aims to contribute to the ongoing discussions surrounding patents, competition, and their implications for the pharmaceutical sector.

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Keywords: Anti-Competitive, Patent, Pharmaceuticals, CCI, TRTIPS.

Introduction

The pharmaceutical sector is distinguished by anomalous economics and a peculiar confluence of competition law, patent law, and regulatory laws. The success of a business will mostly depend on its R&D activities since scientific understanding rather than manufacturing expertise drives competition in the global pharmaceutical sector. As a result, the drug business has unusually high R&D investments relative to overall sales[232]. Anti-competitive practices are a major concern in the global pharmaceutical industry due to the presence of a peculiar market failure possibility in it. Most of the time, customers are not involved in decisions about consumption, which in this case is of drugs and healthcare services. These anti-competitive practices have a direct impact on the accessibility and availability of medicines and therefore ramifications on ensuring the human right of access to medicines for all. The issue of patents becomes the centre of this debate when essential drugs or lifesaving medicines are patent protected. The Patent Act of 1970 protects the rights of a patent holder mainly by giving him/her a right to exclude others. The extent of this exclusion is in some way limited by the application of competition law and other drug regulations along with provisions such as compulsory licensing, statutory and regulatory exception etc. There is a need to examine the extent to which competition law may intervene and remedy anti-competitive practices and abuses by a patent holder.

The Indian Pharmaceutical industry flourished during the Pre- TRIPS interval between 1970 and 2005 wherein product patents were not granted for pharmaceutical products in India. This was possible because the absence of the product patent regime enabled Indian generic companies to manufacture and sell cheaper generic versions of patented drugs thereby ensuring competition in the Indian market. There were widespread speculations that the dawn of a new product patent regime in the Indian Pharmaceuticals will directly impede the access and affordability to medicines in India. Many studies estimated that prices for products with foreign patents would increase by between 100 and 400 percent in the absence of any price controls[233]. Upon analysing the market during the post-TRIPS era, it was found that the sales became more

[232]Sanjib Bhattacharya and Chandra Nath Saha, "Intellectual property rights: An overview and implications in pharmaceutical industry," 2 *Journal of Advanced Pharmaceutical Technology & Research* 88 (2011).

[233] Shubham Chaudhuri, Pinelopi K Goldberg and Panle Jia, "Estimating the Effects of Global Patent Protection in Pharmaceuticals: A Case Study of Quinolones in India," 96 *American Economic Review* 1477–514 (2006).

concentrated and even though there were no large increases in average pharmaceutical prices or the dramatic consolidation of the market as predicted, there was a tendency towards higher price levels in certain therapeutic segments like cancer where essentiality of patented drugs as lifesaving drugs is extremely crucial[234]. Hence, in the post-TRIPS era, it is essential that the competition in the pharmaceutical market be ensured as anti-competitive practices may have far-reaching consequences on ensuring the basic right to health and affordable medicines to all. Access to healthcare is seriously impacted by market malpractices in general and anti-competitive behaviour in the pharmaceutical and health delivery systems in particular. The three main categories of anti-competitive behaviour in the pharmaceutical industry are: related to abuse of intellectual property rights (IPRs); violations of competition laws resulting from mergers and acquisitions (M&ACQ); and collusive and other anti-competitive behaviour. The scope of this paper is limited to abuse of IPRs alone.

ANTI-COMPETITIVE PRACTICES AND ABUSE OF DOMINANCE RELATED TO IPRs

When owners of IP rights sign contracts or carry out actions that are not expressly permitted by IP statutes but appear to have anticompetitive effects, the likelihood of conflict between the application of IP statutes and antitrust statutes increase. Price fixing, abuse of power, collusive agreements, and tied selling are only a few examples of anti-competitive behaviour in the pharmaceutical industry and the health delivery system due to which medicines and health services tend to be costlier. According to Lara Glasgow, pharmaceutical companies try to extend the patent life of their brand-name medications in a number of ways, such as: (1) applying for a patent extension using legal provisions and loopholes; (2) attempting to sue generic manufacturers for patent infringement; (3) merging with direct competitors as soon as the patent rights expire in an effort to maintain the monopoly; (4) recombining pharmaceuticals slightly differently to secure fresh patents and stacking several patents on various drug components to secure perpetual monopoly rights; and (5) utilizing branding and promotion to raise the entrance barrier for generic drug makers[235].

Common Anti-competitive conducts in the pharmaceutical industry

The current state of the pharmaceutical industry reveals an unjustified and excessive reinforcement and manipulation of intellectual property rights, which comes at the detriment of healthy competition and the well-being of consumers. The following discussion on anti-

[234] Mark Duggan, Craig Garthwaite and Aparajita Goyal, "The Market Impacts of Pharmaceutical Product Patents in Developing Countries: Evidence from India," 106 *American Economic Review* 99–135 (2016).
[235] Lara Glasgow, "Stretching the limits of Intellectual Property Rights: Has the Pharmaceutical Industry gone too far" *Idea- the Journal of Law and Technology* (2001).

competitive practices includes a classification of each category.

Anti-competitive conduct to delay or stop generic competition

One strategy used by pharmaceutical corporations to prevent going "off-patent" is to apply for a number of patents covering various aspects of a drug over time, so that new patents take effect when older ones expire, which is known as patent evergreening. Such kinds of conduct have inescapable consequences on ensuring competition and thereby accessibility of medicines. A common anti-competitive conduct that has come before the modern competition jurisdictions for antitrust scrutiny in this context is product hopping. Product hopping is broadly characterized as a "branded manufacturer introducing a minor change to an existing prescription drug product and substantially shifting sales to the reformulated product, with the effect of inhibiting emerging competition from a generic version of the original branded product"[236]. In the case *Mylan Pharmaceuticals, Inc., et al*. v. *Warner Chilcott Public Limited Corporation* (2016), it was alleged that Warner Chilcott resorted to "product hopping" by releasing three subsequent versions of its antibiotic medicine Doryx that provided consumers with little to no apparent medical benefit[237]. Each product reformulation, according to the plaintiffs in this private lawsuit, was intended to, and indeed did, obstruct substantial generic competition and protect Warner Chilcott's monopoly earnings. In an amicus brief, the Commission argued that even small, non-therapeutic modifications to branded pharmaceutical products that hurt generic competition can amount to anticompetitive conduct in violation of U.S. antitrust statutes. The Commission argued,

> "The very fact of product-hopping can itself be evidence of monopoly power. The manufacturer of a brand-name drug generally undertakes a product hop to preserve high profits that generic versions of the same drug would undercut but that no alternative drug, competing in the same market, has yet disciplined."

Knowing that their drug cannot be "off-patent" while there is active patent litigation, original brand manufacturers may resort to filing a lawsuit against generic manufacturers, alleging patent infringement on one or more "layers" of patents that have since been filed on various, frequently unimportant aspects of the drug. These along with other kinds of common sham litigations are often brought to antitrust scrutiny in the US. For instance, The Federal Trade Commission (FTC) filed a complaint in Federal District Court in 2014 alleging that AbbVie and its partner Besins Healthcare Inc. had illegally obstructed patients' access to less expensive

[236] Bret Dickey and Daniel Rubinfeld, "Pharmaceutical Product Hopping: Is There a Role for Antitrust Scrutiny?" 82 *Antitrust Law Journal.* (2019).
[237] 838 F.3d 421 (3d Cir. 2016)

AndroGel substitutes by bringing frivolous patent infringement claims against potential generic rivals.

The FTC was given $493.7 million in equitable monetary remedy in June 2018 after AbbVie and Besins were found accountable for filing a false lawsuit in violation of antitrust statutes[238]. Even while some of these lawsuits are undoubtedly justified, starting a legal dispute also has the added advantage of extending the time that the original brand-name medications may monopolise the market and maximising the profit for the maker[239].

Another way that pharmaceutical companies can increase their market dominance for lucrative brand-name drugs is by using settlement agreements reached during patent infringement litigation as a cover for negotiating deals that reward generic drug manufacturers for delaying or refraining from releasing a competitor generic product. Contrary to drug firms' strategies for taking leverage of legal loopholes, the US Federal Trade Commission is increasingly challenging these agreements for violations of antitrust law. 'Patent Settlement Agreements' as they are called are any formal or informal agreement, such as a straightforward gentlemen's agreement, that resolves a current or potential patent issue. They may be referred to as a "patent settlement agreement," regardless of whether it was brought before a court or another authority or resolved outside of court without the use of a formal adversarial procedure. Patent settlement agreements are reached to settle claims in patent disputes, opposition processes, or litigation where a final ruling has not yet been issued or a judicial session has not yet taken place. A settlement agreement's main goal is to put an end to any litigation, objections, or disputes[240].

The US FTC began looking into patent settlement agreements in 2000, believing that Abbott Laboratories and Geneva Pharmaceuticals, Inc. had entered into an anticompetitive agreement that could have delayed the introduction of generic versions of Abbott's brand-name Hytrin, a medication for high blood pressure and prostate issues. Hytrin, the brand name for the prescription medication terazosin HCL, is marketed and sold by Abbott Laboratories. Geneva and Abbott entered into a contractual agreement whereby Geneva committed to refraining from introducing any generic terazosin HCL capsule or tablet products. This commitment would remain in effect until either of two conditions were met: the resolution of the ongoing legal dispute concerning patent infringement involving Geneva's terazosin HCL tablet product, including potential review by the Supreme Court; or the introduction of another generic terazosin HCL product. In exchange for this arrangement, Abbott agreed to provide Geneva with a monthly payment of $4.5 million. Subsequently, Abbott and Geneva terminated

238 *FTC* v. *Abbvie* 976 F.3d 327 (3d Cir. 2020)

239 Supra note 4

240 European Commission, "Pharmaceutical Sector Inquiry Final Report" (July 2009)

their agreement upon becoming aware of the investigation conducted by the Commission. Due to Geneva's assurance to the FDA that its introduction of generic HCL would not violate a valid patent and its strong belief in ultimately prevailing in the patent infringement matter against Abbott, the Commission regarded Geneva as a potential competitor in the industry. In reality, Geneva was getting ready to introduce its generic terazosin HCL capsules as soon as possible in early 1998.[241]

In the case of *Federal Trade Commission* v. *Watson Pharmaceuticals Inc et a*l (*FTC* v. *Actavis*)[242], the defendants had sought regulatory approval from the FDA to market generic versions of Solvay's testosterone-replacement drug AndroGel. The companies declared in their FDA submissions that the AndroGel patent Solvay held was invalid and that their products did not violate it. The complaint claims that Solvay committed illegal acts to remove this threat after realising the disastrous impact that generic competition would have on its sales of AndroGel. The FTC claimed that Solvay gave Watson and Par a cut of its AndroGel profits in exchange for dropping their patent disputes and agreeing to postpone generic entry until 2015. The complaint claims that as a result, the defendants are working together to sell AndroGel and splitting the benefits from the monopoly rather than going head-to-head. The Supreme Court rejected decisions from lower courts that treated "reverse-payment" patent settlements as essentially free from antitrust law in June 2013. In many ways, the Supreme Court's decision in *FTC* v. *Actavis* is significant, particularly because the Court acknowledged the potential antitrust ramifications of reverse payment as a component of patent settlement agreements.

In a more recent case, *Federal Trade Commission* v. *Cephalon, Inc*.[243], the Federal Trade Commission (FTC) initiated a lawsuit against Cephalon in February 2008. The lawsuit pertained to Cephalon's contractual agreements with four generic drug manufacturers regarding the medication Provigil (modafinil), which is used to treat narcolepsy. These contracts involved what are called "exclusion payments." All four generic companies that aimed to offer a discounted version of Provigil had entered into agreements with Cephalon. These companies had challenged the validity of the sole patent protecting Provigil from generic competition. The FTC alleged that Cephalon managed to convince these generic manufacturers to abandon their patent disputes and delay their plans to introduce a generic Provigil until 2012. This persuasion was achieved by offering them a combined sum exceeding $200 million. The Commission argued that Cephalon's strategy with these agreements had anticompetitive implications. This

[241] *Abbott Labs*. v. *Geneva Pharmaceuticals* 182 F.3d 1315 (Fed. Cir. 1999)
[242] 611 F. Supp. 2d 1081 (C.D. Cal. 2009)
[243] Civil Action 08-2141 (2021)

strategy hindered patients' access to more affordable generic versions of Provigil, resulting in consumers and other purchasers having to pay hundreds of millions of dollars extra annually for Provigil.

Antitrust law can help maintain the equilibrium between rewarding innovation and preserving competition in a number of situations, including situations like the granting of patents on minor components of outdated medications, the reformulation of obsolete medications to obtain new patents, and the use of advertising and brand name development to raise barriers for generic market entrants, where there is an abuse of the patent right by the innovative company by going beyond what is reasonably required to protect their right[244].

Abuse of dominance

Patent-backed monopolies become a nuisance in the pharmaceutical sector in numerous ways. However, the most debated issue is that of charging exorbitant prices by dominant firms, especially in life-saving drugs. This is no longer true that because of their exclusive monopoly on the market, patented medicine costs rise, while generic drug prices stay low. Despite strict price controls in other nations, efforts to restrict the costs of patented medications have not gained much traction in the United States[245].

Competition authorities have historically been reluctant to open investigations into high pricing, even in areas where it is regarded as an antitrust violation, such as in Europe, especially when there is no other element of abuse[246]. Excessive pricing cases have recently witnessed a growing interest of the European Commission. The Italian Competition Authority (ICA) determined in 2016 that Aspen had abused its dominant position by threatening the Italian Medicine Agency (AIFA) that it would stop supplying several of its anti-cancer drugs used in chemotherapy treatments that were deemed essential and had no therapeutic alternative in Italy if the AIFA refused to approve price increases for these products ranging from 300 to 1500%. These drugs were used in chemotherapy treatments and were considered to be lifesaving and had no therapeutic alternative in Italy. Aspen paid a €5.2 million fine to the ICA[247]. In a much earlier case, AstraZeneca was penalised by the European Commission in 2005 for allegedly abusing its dominant position, specifically by lying to various national patent offices in order to maintain or obtain additional certificates of protection for one of its highly successful gastrointestinal drugs, Losec, that it was not entitled to (or only for a shorter period of time).

[244] Supra note 1

[245] Jennifer Graber, "Excessive Pricing of Off-Patent Pharmaceuticals: Hatch It or Ratchet?" 92 *New York University Law Review* (2017).

[246] Raphaël De Coninck and Elina Koustoumpardi, *Excessive Pricing Cases in the Pharmaceutical Industry: Economic Considerations and Practical Pitfalls* (www.concurrences.com, 2017).

[247] *Incremento Prezzi Farmaci Aspen*, (2016) Italian Competition Agency Case no. 26185

Because of this, generic manufacturers were unable to enter the market[248].

Addressing the conflict: Approach of Competition enforcement Agencies

In theory, patents give pharmaceutical businesses monopoly status because, by definition, a patent gives the holder the sole right to create, use, or sell a product for a specific time. It can also be found that it is in the pharmaceutical industry, where intellectual property rights (especially patents) are stretched to their limits in an effort to maximise revenues on well-known brand-name pharmaceuticals, is perhaps where the conflict between patent and antitrust is most readily apparent.[249]

For the purpose of enforcing antitrust laws, courts and other competition enforcers treat disputes concerning intellectual property rights in the same manner as disputes involving tangible property[250]. According to the US Supreme Court, unless a claim is both objectively and subjectively without foundation, IP owners are immune from antitrust lawsuits based on the assertion of their rights under the US Constitution's First Amendment[251].

With regard to the approaches taken by the competition enforcement authorities in specific issues of anti-competitive practices, there have been inconsistencies. For instance, the US Supreme Court had upheld a 'per se anti-competitive' approach to reverse payment settlement agreements in some cases and then reversed its position later. *In Re Cardizem Antitrust Litigation* (2003)[252], the Circuit Court in the US held that reverse payment agreements are conclusively a horizontal agreement to limit competition in the market for the off-patent drug across the whole United States at its core, making it a prime example of a per se illegal trade restraint. The Eleventh Circuit Court later rejected the per se rule in the case of *Valley Drug Co*. v. *Geneva Pharmaceuticals Inc*[253]., holding that these elements of the patent settlement are at the core of the patent right and cannot be used to invoke the per se label.

The Commission's determination In *Re Cardizem Antitrust Litigation*[254] that the agreements were immune from antitrust review if their anticompetitive effects were within the scope of the exclusionary potential of the patent was overturned by the United States Court of Appeals for the Eleventh Circuit and the appeal by the FTC against the Circuit Court was denied by the US Supreme Court.

[248] *AstraZeneca*, (2005) European Commission COMP/A. 37.507/F3
[249] Supra note 4
[250] Lisa Kimmel and Kate M Watkins, Intellectual Property & Antitrust (Crowell & Moring LLP, 2019).
[251] *Professional Real Estate Investors, Inc*. v. *Columbia Pictures Industries, Inc.,* (1993) 508 U.S. 49
[252] 218 F.R.D. 508 (E.D. Mich. 2003)
[253] 344 F.3d 1294 (11th Cir. 2003)
[254] Supra note 21

Anti-competitive practices in the Indian pharmaceutical sector: Cases before the CCI

It is noteworthy that the Competition Commission of India (CCI) has adopted an aggressive stance against companies that use anti-competitive practices in the pharmaceutical sector. Under the Indian competition law regime, although there is an IP exemption under Section 3(5) of the Indian Competition Act that demonstrates the nation's resolute commitment to protecting IP rights in the face of competition, Section 4, which addresses the clause of abuse of dominant position, leaves plenty of room for competition interference in IP matters[255]. When viewed from an industrial standpoint, it is clear that the telecommunications industry accounts for the majority of patent-related competition lawsuits. But, in a few instances of alleged anti-competitive behaviour by pharmaceutical companies, the antitrust issue in particular has a substantial impact from a human rights standpoint. For instance, in the case of *Biocon Ltd & Others* v. *F. Hoffmann-La Roche Ag & Others* [2016], abuse of dominance was accused against the opposite party by the complainant generic manufacturer[256]. The OPs were believed to be the second largest pharmaceutical firm in the world. The Pharmaceutical business removed the original patented medicine from the Indian market in 2012 and developed Trastuzumab, a less expensive variant, in an effort to stop other competitors from creating a biosimilar version of its patented antibody and avoid the enforcement of a compulsory licence. In parallel, the informants worked together to create a less expensive biosimilar version and began producing it after being granted a licence by the Drugs Control Department of the Government of Karnataka in 2013. It was claimed by the informants that the OPs in an effort to stop the entry of new competitors in the market, began to engage in frivolous litigation against the informants after they introduced the biosimilar version on the market. Furthermore, it was alleged that the opposing parties made pointless contacts with various authorities in an effort to block the arrival of its rivals. While defining the relevant product market, the Commission interpreted Section 2(t) of the Act without accepting the OP's argument that biosimilars were not identical to reference biological drugs, much like generics weren't identical to chemical drugs. As a result, the Commission declared that the relevant product market may include products that are "similar" in terms of their intended use; they need not always exhibit "identical" properties. In this case, "biological medicines based on Trastuzumab, including its biosimilars in India" was designated as the relevant market.

While answering the question of abuse of dominance the Commission determined that Roche Group had a prima facie dominant position in the relevant market as the allegations in the

[255] K D Raju, "The Inevitable Connection between Intellectual Property and Competition Law: Emerging Jurisprudence and Lessons for India" 18 *Journal of Intellectual Property Rights* (2013).
[256] (2016) CCI Case no. 68

current case related to abuse of dominance beginning in 2013 (when its patent was still in effect). The Commission also noted that from 2013 to 2014 (when its patent was no longer in effect), Roche Group had a 100 percent market share. It also maintained a sizable market share and appeared to be the dominant player (in terms of both value and volume of sales) in the relevant market, despite its market share declining after the introduction of Trastuzumab's biosimilar. The informants brought forth several charges against Roche Group about abuse. The Roche Group was accused of trying to stifle competition in the market for biosimilars by engaging in frivolous legal disputes, meddling with regulatory agencies, misleading authorities, discrediting the reputation of biosimilars, etc., thereby shutting out its rivals. The Commission correctly acknowledged the peculiar structure of the pharmaceutical business; wherein to exclude market players, apart from designing pricing tactics, corporations also indulge in non-pricing techniques and try to unlawfully increase their competitors' expenses. In light of this and the potential for non-priced anti-competitive behaviour, the Commission thoroughly examined the claims. The Commission investigated whether the legal action taken against the informants by the OPs in a civil suit in the Delhi High Court was a sham litigation. The Commission responded in the negative to this inquiry, and the charge of vexatious litigation was declared to be presumptively without merit. However, with regard to the totality of the matter, the Commission held that Roche Group appeared to have engaged in a number of actions that were intended to negatively impact the market entry of biosimilars. Such measures could cast doubt on the effectiveness and safety of biosimilars due to the intrinsic nature of the pharmaceutical industry, which could have a negative impact on the market for biosimilars.

In another case *Manoj Hirasingh Pardeshi* v. *Gilead Sciences Inc*[257] [2012] before the CCI, the informants alleged abuse of dominance through exclusive voluntary licensing agreements in the matter of. In 2006, Gilead Sciences entered into non-exclusive voluntary licence agreements for the production and marketing of antiretroviral (ARV) pharmaceuticals for the treatment of AIDS with roughly ten Indian pharmaceutical companies, including Medchem and Aurobindo. According to these agreements, licensees must pay royalties ranging from 3 to 5 percent on each finished product sold. In addition, Gilead Sciences entered into a contract in 2011 with the Medicines Patent Pool (MPP), a non-profit organisation based in Geneva, to pool rights and grant sub-licenses to pharmaceutical producers all over the world, including India. Aurobindo Pharma and Emcure Pharmaceuticals, two Indian pharmaceutical businesses, and

[257] (2013) CCI Case no. 41/2012

MPP entered into tripartite arrangements on this basis.

The informant, Pardeshi had contended that a number of conditions in this agreement were anti-competitive and restricted the development and delivery of the pharmaceuticals by, among other things, requiring that they only be purchased and sold from Gilead Sciences or licensees that had been approved by it. According to the informant, the OP falsely claimed that it had been granted patents, namely 2174/DEL/98 and 01316/CHENP/2004, in the appendix to the licencing agreement with MPP, despite the fact that the Indian Patent Office website revealed that the former application was not yet published and the latter did not exist. The Commission in its order observed that the market for the production of anti-retroviral (ARV) drugs for the treatment of AIDS "was fragmented with many players engaging in the activity of production/ manufacture of ARV drugs in India" and hence there was no dominant firm in the market whose conduct may have an Appreciable Adverse Effect on Competition (AAEC) in the relevant market.

A recent decision of the CCI is of significant importance to not just Indian public health policy and law but also to the patent-competition conflict. In the case of *Swapan Dey* v. *Vifor International*[258], the CCI dismissed a complaint against Vifor for abuse of dominance by entering into exclusive licensing agreements along with allegations of excessive pricing and price discrimination. Vifor possesses a patent for FCM injectable, a treatment for iron deficiency. The Competition Commission of India (CCI) dismissed the allegation, stating that there was no proof that Vifor's license holders could block competitors, and there were no barriers to prevent other suppliers of iron injectable from entering the market. The CCI also observed that these agreements were of limited duration, as the applicable patent would expire by 2023. The CCI indicated that discrepancies in pricing might not be discriminatory if they are grounded in a reasonable categorization of customers or if they are accessible through government procurement procedures.

In another recent ruling, the Delhi High Court addressed the question of whether the Patents Act takes precedence over the Competition Act, considering the legal principles *"generalia specialibus non derogant"* and *"lex posterior derogate priori."* Four appeals and a writ petition were lodged in 2023 with the aim of seeking clarity on a shared and impactful query. This query pertains to the scenario wherein a patent is granted in India and the patent holder asserts their rights stemming from it. The central question raised is whether the CCI can investigate the actions of such a patent holder within the scope of its authority defined by the Competition Act, 2002.The Court dismissed the proceedings initiated by the Competition Commission of

[258] (2022) CCI Case no. 05/2022

India (CCI) against a patent holder due to lack of authority[259]. The Court's rationale was that patent law, being specialized legislation, should hold greater weight than the more general competition law in this context. However, it's worth noting that this perspective is not universally accepted across jurisdictions. It's important to highlight that the exception provided to Intellectual Property Rights (IPRs) under section 3(5) pertains solely to the undertaking of reasonable measures to curb infringement of one's statutory IP rights. This exception does not apply in any manner to cases involving abuse of dominance under section 4. The Ayyangar Committee report itself allows for the application of anti-monopoly statutes (formerly the Monopolies Restrictive and Trade Practices Act, 1969) in situations where a patent holder engages in abuse of dominance[260]. Therefore, despite the judicial departure from this standpoint, it can be concluded that the statutory stance in India permits competition-related intervention in instances of substantiated anti-competitive behaviour by IP holders.

Conclusion

The ruling by the Delhi High Court in the case *Telefonaktiebolaget LM Ericson* is disfavour of CCI has brought attention to the intricate interplay between the Patents Act and the Competition Act, with a specific focus on the authority of the Competition Commission of India (CCI) to investigate actions of patent holders. Competition law in its function as a market regulatory tool regulates the market in which Intellectual Property (IP) is commercialized. IP, like its literary connotation indicates, refers to certain property/assets which derive value from intellectual labour. A person who holds a patent right may exclude other competitors from selling or manufacturing his patented article, thereby reducing competition in the market. Whether the said rights exercised in this case are property rights or limited privileges is a different question altogether. However, it can be safely assumed that in today's world, whatever be its nature, IP rights are subject to competition law intervention. But this does not mean that the rights of the IP holder may be easily compromised or written over for the sake of increasing competition in the market. There are certain safeguards in the IP statutes itself that ensures that the holders of IP do not adversely affect the competition in the market. However, these provisions alone may not be sufficient and hence, the competition statute may fill into the lacunae. While there are efforts at legislative level to identify and close the gaps and lacunas in current IP statutes, along with the competition law may be required to appropriately step in in order to curtail unfavorable business practices of the pharmaceutical industry.

[259] *Telefonaktiebolaget LM Ericson* v. *Competition Commission of India*, (2023) SCC OnLine Del 4078

[260] Justice N. Rajagopala Ayyangar, "Report on the Revision of the Patents Law" 72 (September, 1959).