

An IQAC Initiative



**JSS Law College**

Autonomous  
Kuvempunagar, Mysuru

Affiliated to Karnataka State Law University, Hubballi

**International Webinar**  
on  
**Legal Intricacies of Copyleft, Copywrong, Copyright, and  
Future Intellectual Property**

**SPECIAL ISSUE**  
**(2024)**

**JSS Journal for Legal Studies and Research**

**[ ISSN 2321-4171 ]**

**A Peer-Reviewed Journal**

**[/https://www.jsslawcollege.in/jsslc-online-journal](https://www.jsslawcollege.in/jsslc-online-journal)**

**JSS Law College (Autonomous)**  
**New Kantharaje Urs Road, Kuvempunagar**  
**Mysuru-570 023, INDIA**

**Website: [www.jsslawcollege.in](http://www.jsslawcollege.in)**

**Email: [principal@jsslawcollege.in](mailto:principal@jsslawcollege.in)**

**Office no: 08212548244**

# **JSS Journal for Legal Studies and Research**

**[ISSN 2321-4171]**

**A Peer-Reviewed Journal**

**SPECIAL ISSUE**

**(2024)**

**<https://www.jsslawcollege.in/jsslc-online-journal/>**



**JSS Law College (Autonomous)**

New Kantharaje Urs Road, Kuvempunagar

Mysuru-570 023, INDIA

Website: [www.jsslawcollege.in](http://www.jsslawcollege.in)

Email: [principal@jsslawcollege.in](mailto:principal@jsslawcollege.in)

Office no: 08212548244

**CHIEF PATRON:**

Prof. Dr. C. Basavaraju,  
Hon'ble Vice Chancellor  
Karantaka State Law University,  
(Hubballi)

**PATRON & EDITOR-IN-CHIEF**

Prof. K.S. Suresh,  
Chief Executive,  
J.S.S. Law College, Autonomous,  
Mysuru, Karnataka, India

**PATRON & ASSOCIATE EDITOR**

Dr. N. Vani Shree  
Principal,  
J.S.S. Law College, Autonomous,  
Mysuru, Karnataka, India

**COURTESY:**

Mr. Ashraya Chakraborty,  
Mr. Pranav Kumar Nair,  
Ms. Asmathunissa,  
Mr. Jagadish A T,  
Dr. Priya A Jagadish and  
Mr. Madhu Kumar R N

## **EDITORIAL ADVISORY BOARD**

**Prof. (Dr.) Antonio Jorge Pereira Júnior**  
*Professor of the Doctorate Program in Law,  
UNIFOR University of Fortaleza  
Av. Washington Soares, 1321 - Edson Queiroz, Fortaleza –  
CE, 60811-905, Brazil*

**Prof. (Dr.) Daniel Hamilton Fernandes de Lima**  
*Professor of Law,  
Faculdade Princesa do Oeste, Crateús, Ceará,  
Rua Zacarias Carlos de Melo, 1000, São Vicente,  
Crateús-CE, 63700-190- Brazil*

**Mr. Sayed Qudrat Hashimy**  
*LLM (IPR), NALSAR University of Law, Hyderabad, India  
LLM (International Law) 'Gold Medalist', University of Mysore, Mysuru  
BA.LLB (Hons) '1<sup>st</sup> Rank holder' JSS Law College, Autonomous, Mysuru  
ORCID: <https://orcid.org/0000-0001-9835-0575>*

**Mr. Jackson Simango Magoge**  
*LL.M. (Corporate and Commercial Law), NALSAR University of Law,  
Bachelor of Laws from Moshi Co-operative University in Tanzania  
Faculty of Law  
Department of Humanities and Social Sciences,  
National Institute of Transport (NIT),  
P.O. Box 705 Mabibo Rd., Dar es Salaam, Tanzania  
ORCID: <https://orcid.org/0000-0001-8096-6929>*

## EDITORIAL NOTE

Welcome to this ‘**Special Edition**’ of JSS Journal for Legal Studies and Research [ISSN 2321-4171], where we explore the ever-evolving landscape of intellectual property in the face of rapid technological advancements and shifting cultural paradigms. This issue delves into the intersection of emerging technologies like Blockchain and Artificial intelligence (AI) with traditional and contemporary intellectual property (IP) laws, offering critical insights into how these forces are reshaping the domain.

Our lead article, “Blockchains, AI and Demise of Traditional Copyright Law” by Khushi Patel, lays the foundation by examining how Blockchain technology and AI are challenging the conventional boundaries of copyright law. Patel’s analysis sets the stage for a deeper exploration of how these technologies are influencing the protection and distribution of creative works.

Following this, Vijayendra Kumar M’s article on “Copyleft and Its Impact in the IPR Arena – An Analysis” provides a thorough examination of Copyleft principles and their implications in the intellectual property rights arena, contrasting with traditional copyright approaches.

Rubasri P & Srimathi S takes us into the realm of AI-generated artistic work with their piece, “Copyrightability of AI-Generated Artistic Work,” addressing the thorny issue of authorship and copyright in an era where machines are becoming creators

Ashhad Sajid Khan’s contribution, “Copyright in the Age of Artificial Intelligence: Addressing Authorship, Ownership, and Legal Frameworks,” further expands on these themes by tackling the broader implications for legal frameworks in light of AI advancements.

In “The Intersection of Artificial Intelligence and Intellectual Property Law: A Study of Ownership of AI Generated Content in India,” Amritha M & Gloria Pearl Issac offer a focused look at the Indian context, highlighting unique challenges and considerations in this jurisdiction.

P N Midhu & Sheela Ganesh explores the niche yet significant area of copyright concerns in the pharmaceuticals, healthcare, and life sciences sectors. Their article, “Exploring the Copyright Concerns Traversing Pharmaceuticals, Healthcare and Life Sciences Sector: A Public Health Dimension,” brings attention to the public health implications of IP laws in these critical fields.

Mokksha Shah's article, “The Complexity of Copyright in the Fashion Industry: An Analysis of Design Protection and Fast Fashion,” delves into the unique challenges faced by the fashion industry, especially in relation to design protection amidst the rise of fast fashion.

P. Mohan's piece, "The Evolving Role of Intellectual Property Frameworks in Innovation and Accessibility," provides a broad view of how IP frameworks are adapting to facilitate innovation while ensuring accessibility.

Shuchi Srivastava's article, "Balancing Innovation and Protection: Copyleft vs. Copyright in AI Development," presents a nuanced discussion on how different IP regimes are balancing the needs for innovation and protection in the rapidly advancing field of AI.

Urvi Nama explores the concept of "Remake Rights under Copyright," analyzing how copyright law addresses the issue of derivative works and the rights of creators in the context of remakes and adaptations.

Finally, Saksham Arora's article, "The Intricate Web: Copyleft, Copywrong, and Copyright in the Evolving Landscape of Intellectual Property," and Kabir Gaba's comprehensive study, "AI, Innovation, and Intellectual Property: A Legal Perspective," wrap up our issue with a deep dive into the evolving and often contentious interplay between various IP concepts and technological innovations.

This issue promises to be both enlightening and thought-provoking as it navigates the complexities of IP law in a technological age. We hope these articles stimulate discussion, inspire further research, and contribute to the ongoing dialogue on the future of intellectual property.

Happy reading!

Editor-in-Chief

<b>Serial No.</b>	<b>TITLE</b>	<b>AUTHOR (S)</b>	<b>PAGE NO.</b>
<b>01</b>	<b>Blockchains, AI and Demise of Traditional Copyright Law</b>	<i>Khushi Patel</i>	1-10
<b>02</b>	<b>Copyleft and Its Impact in the IPR Arena – An Analysis</b>	<i>Vijayendra Kumar. M</i>	11- 23
<b>03</b>	<b>Copyrightability of AI-Generated Artistic Work</b>	<i>Rubasri P &amp; Srimathi S</i>	24-31
<b>04</b>	<b>Copyright in the Age of Artificial Intelligence: Addressing Authorship, Ownership, and Legal Frameworks</b>	<i>ASHHAD SAJID KHAN</i>	32-47
<b>05</b>	<b>The Intersection of Artificial Intelligence and Intellectual Property Law: A Study of Ownership of AI Generated Content in India</b>	<i>Amritha M &amp; Gloria Pearl Issac</i>	48-58
<b>06</b>	<b>Exploring the Copyright Concerns Traversing Pharmaceuticals, Healthcare and Life Sciences Sector: A Public Health Dimension</b>	<i>P N Midhu &amp; Sheela Ganesh</i>	59-74
<b>07</b>	<b>The Complexity of Copyright in the Fashion Industry: An Analysis of Design Protection and Fast Fashion</b>	<i>Mokksha Shah</i>	75-88
<b>08</b>	<b>The Evolving Role of Intellectual Property Frameworks in Innovation and Accessibility</b>	<i>P. Mohan</i>	89- 105
<b>09</b>	<b>Balancing Innovation and Protection: Copyleft vs. Copyright in AI Development</b>	<i>Shuchi Srivastava</i>	106-114
<b>10</b>	<b>Remake Rights under Copyright</b>	<i>Urvi Nama</i>	115-129
<b>11</b>	<b>The Intricate Web: Copyleft, Copywrong, and Copyright in the Evolving Landscape of Intellectual Property</b>	<i>Saksham Arora</i>	130-147
<b>12</b>	<b>AI, Innovation, and Intellectual Property: A Legal Perspective</b>	<i>Kabir Gaba</i>	148-178



---

## **Blockchains, AI and Demise of Traditional Copyright Law**

*Khushi Patel<sup>1</sup>*

### **ABSTRACT**

*Traditional copyright is crumbling under the weight of technological advancements. The widening gap between rapidly evolving technologies like blockchain, artificial intelligence and decentralized autonomous organizations, and the comparatively stagnant legal framework governing intellectual property has been there recently. The speed at which technology is developing has outpaced the ability of the law to adapt, creating a complex landscape with significant challenges for creators, consumers, businesses alike. This paper explores the complex interplay that modern technologies have with copyright law, looking at how they affect the fundamental principles of authorship, ownership, and access. The objective of this paper is to contribute to the ongoing discussion on the future of intellectual property by analyzing the potential implications of blockchain for copyright management and the challenges associated with artificial intelligence producing content. Ultimately, this paper aims to identify viable solutions and policy suggestions for addressing the difficulties presented by this rapidly evolving digital realm.*

**Key words:** *intellectual property, technology law, blockchain, artificial intelligence, copyright.*

### **For Citation:**

---

**Khushi Patel, 'Blockchains, AI and Demise Of Traditional Copyright Law' (2024) Special Issue JSS Journal for Legal Studies and Research 1-10**<https://www.jsslawcollege.in/jsslc-online-journal/>.

---

---

<sup>1</sup> Karnavati University- Unitedworld School of Law, Ahmedabad, Gujarat  
Email: [khushiamitpatel23@gmail.com](mailto:khushiamitpatel23@gmail.com)





## INTRODUCTION

Intellectual property encompasses creations of the mind, such as inventions, literary and artistic works, designs, symbols, names, images, used in commerce.<sup>2</sup> The importance of intellectual property (IP) lies in its ability to protect and incentivize creativity, ensuring that creators can benefit from their work. IP protects the creations of human intelligence, from literary and artistic works to innovations and trademarks, promoting both economic and cultural progress. A specific branch of IP known as copyright law gives authors and creators the exclusive right over their original works to reproduce, distribute, and display their works so that their work is not exploited without consent, encouraging the creation of new works of art and knowledge.

Copyright, at its core, is a legal right that gives the author of an original work exclusive control over its use and distribution for a predetermined amount of time. Diverse forms of artistic expression are protected under this, including music, literature, and visual arts. Copyright protects the products of creative labor and supports a thriving environment that supports the success of creators. The sharp differences between copyleft and copyright, however, highlight the complexity of intellectual property. Copyleft encourages open sharing, collaboration and permits free dissemination and modification of works under certain conditions, whereas copyright stresses exclusive rights. The paradox draws attention to the conflict that exists between private property rights and open access to knowledge.

Copyright law has historically changed in tandem with technological developments, starting with the printing press and continuing through digital media. The Statute of Anne, which was enacted in 1710 and is regarded as the first modern copyright statute, provides insight into the historical background of copyright law. The conceptual framework that authors should have control over their works was established by this act, which also set the foundation for the protection of literary works. Over the centuries, copyright law has evolved to include various forms of media and has adapted to technological developments, guaranteeing the protection of author's rights in the ever-evolving landscape. The traditional copyright paradigm is facing unprecedented challenges as a result of the digital revolution. The fundamental idea of authorship and originality is being challenged by the proliferation of digital information and AI's ability to create creative works on its own. It becomes unclear who is entitled to intellectual property

---

<sup>2</sup><https://www.wipo.int/about-ip/en/>

created by an AI algorithm: the AI itself, the user who prompted it, or the programmer? These questions highlight a big disconnect between the current legal system and the rapidly changing technology reality. On the other hand, blockchain technology presents a potential solution to some of the challenges faced by the copyright law. With the decentralized and immutable structure, blockchain technology has the ability to completely transform copyright management by producing open, transparent, and verifiable ownership records.

Adding another layer of complexity to the discussion is the phenomena known as Copywrong, which refers to the misapplication or abuse of copyright law. The detrimental impacts on creativity and innovation become apparent when businesses and individuals exploit copyright to stifle competition or limit access to information. Copywrong seriously hinders consumers and smaller author access to copyright, as well as undermining the spirit of copyright. Concerning how law can adapt to prevent such misuses and preserve the rights of legitimate writers, the misuse poses pressing issues.

The emergence of artificial intelligence-generated content adds to the complexity of intellectual property laws. AI technologies have the potential to generate works on par with those produced by human creators as they advance in sophistication. This blurring of lines between human and machine generated content presents serious moral and legal questions about creator rights, ownership, and authorship. The consequences of AI-generated works are not sufficiently addressed by the current copyright laws, leading to a potential legal void that could hinder innovation and creativity in future.

In the light of these challenges, the paper seeks to add to the current discussion over intellectual property's future by examining how blockchain technology affects copyright management and the nuances of AI-generated content. In order to assist navigate the rapidly changing digital landscape, this paper attempts to identify viable solutions and policy suggestions through a thorough analysis of the legal nuances of copyright, copyleft, and copywrong.

## **CHALLENGES**

Copyright law is a multifaceted construct, intricately woven together by threads of economics, sociology, philosophy, technology, and law. At its core, copyright is an economic tool designed to incentivize creativity by granting creators exclusive rights over their intellectual property. This economic perspective, while foundational, is insufficient on its own. The economic rationale is predicated on the notion that giving the authors and artists the means to monetize their creations

will promote the production of cultural goods, thereby enriching society as a whole. The sustenance of creative industries including publishing, music, films, and software development depends on this economic structure. The social implications of copyright are profound, shaping cultural production and consumption patterns. It influences how we access, share, and value creative works, impacting everything from education to entertainment. Philosophically, copyright law acknowledges authors' moral rights to control and profit from their intellectual labor, embodying the ethical values of justice and fairness. It also addresses the conceptual conflict that arises between the rights of individuals and the welfare of the group, especially in the digital age where information can be easily replicated and distributed.<sup>3</sup>

The emergence of digital content distribution has significantly transformed the business models that underpin creative industries from an economic standpoint. Widespread access to copyrighted content has been facilitated by the growth of online platforms, which frequently results in instances of infringement and piracy that jeopardize the income streams of authors. Consequently, copyright holders struggle to strike a balance between fostering access to culture and knowledge and protecting their economic interests.<sup>4</sup> The rise of new technologies like artificial intelligence and blockchain, which offer creative methods for copyright creation, distribution and enforcement but also create issues with authorship, ownership, and applicability of current legal framework, exacerbates this economic conundrum even more.<sup>5</sup> The rapid development of digital technology presents both challenges and opportunities for copyright law. The conventional frameworks controlling copyright are seriously challenged by the changing digital economy, which is defined by the ubiquity of the internet and rapid technological advancements.<sup>6</sup>

Copyright law faces numerous and intricate challenges in the light of this changing landscape. The inadequacy of the current legal frameworks to tackle the reality of digital content

---

<sup>3</sup>Gordon, JS. AI and law: ethical, legal, and socio-political implications. *AI & Soc*36, 403–404 (2021). <https://doi.org/10.1007/s00146-021-01194-0>

<sup>4</sup>Shin-yi Peng, The Uneasy Interplay between Digital Inequality and International Economic Law, *European Journal of International Law*, Volume 33, Issue 1, February 2022, Pages 205–236, <https://doi.org/10.1093/ejil/chac019>

<sup>5</sup>Gordon, JS. AI and law: ethical, legal, and socio-political implications. *AI & Soc*36, 403–404 (2021). <https://doi.org/10.1007/s00146-021-01194-0>

<sup>6</sup>Montagnani, Maria Lillà, 'The Interface Between Intellectual Property and Information Technology Law', in Irene Calboli, and Maria Lillà Montagnani (eds), *Handbook of Intellectual Property Research: Lenses, Methods, and Perspectives* (Oxford, 2021; online edn, Oxford Academic, 23 Sept. 2021), <https://doi.org/10.1093/oso/9780198826743.003.0011>

distribution is among the most significant challenges. The traditional copyright laws were developed in an era characterized by physical media and linear distribution methods. However, the production, distribution and consumption of creative works have changed dramatically with the introduction of internet and digital technology. This change has led to a proliferation of copyright infringement instances, as unauthorized copying and distribution became easier than ever. As a consequence, copyright holders find it difficult to successfully protect their rights in a world where their works can be disseminated globally within seconds, often without their consent.<sup>7</sup>

Furthermore, it is impossible to undervalue the challenge of proving authorship and ownership in a digital setting. Attributing authorship to creative works grows more complex as they entail collaborative efforts, which is often facilitated by technology. Concerns about legal standing of the final works emerge when artificial intelligence or machine learning algorithms are used in the content production process. The traditional notion of authorship, which relies on individual human creators, is tested, requiring a reassessment of the definition of authorship under copyright law. The uncertainty makes things more difficult for both producers and consumers, which may inhibit creative collaboration and innovation.<sup>8</sup>

The economic implications of copyright enforcement provide another challenge. Copyright holders often rely on digital platforms as the primary means of distributing creative content since they offer a high level of protection for their works. But this dependence can lead to power disparities since large corporations could put their own financial interests ahead of those of the individual creators. For the small businesses and individual creators in particular, the cost of copyright enforcement may be a financial burden. The protective intent of copyright law may be undermined if the costs associated with pursuing infringement claims can deter these creators from seeking legal recourse.

The landscape of copyright is further complicated by the idea of fair use. The criteria for fair use are often vague and susceptible to interpretation, even while they are meant to provide for flexibility in the use of copyrighted works in specific contexts - such as criticism, teaching, comment, news reporting, and research. Both copyright holders and users may become unsure as

---

<sup>7</sup> DIGITAL COPYRIGHTS: ADDRESSING CHALLENGES IN THE INTERNET AGE, Erjona Bezatliu <https://www.ijnrd.org/papers/IJNRD2403663.pdf>

<sup>8</sup> Copyright Issues in the Digital Era: Challenges and Solutions, Khushi Malviya

a result of this ambiguity, which might result in overzealous enforcement of the law and stifle creative expression. As a result, the very structure intended to promote creativity may unintentionally inhibit it, as artists grow reluctant to experiment with new ideas or reinterpret existing works for fear of infringing on someone else's rights.<sup>9</sup>

The intersection of copyright law with the rapidly evolving technologies has created a complex and dynamic landscape, characterized by significant challenges. The traditional framework, designed for a physical media world struggles to adapt to the intricacies of the digital realm. The ease with which digital content can be replicated, distributed, and modified, resulting in rampant infringement and piracy, is one of the other challenges. The challenge lies in balancing between the public's interest to access and share information and authors' rights. The advent of user-generated content platforms has further complicated the copyright law. Determining the ownership and liability of the creative content has become more difficult due to the blurring boundaries between the creators and consumers. Individuals are now able to create content thanks to platforms like Youtube and Instagram, but the legal implications of this shift are still evolving. Issues such as fair use, takedown notices, and the role of intermediaries remain contentious. By obscuring the underlying ideas of authorship, ownership, and originality, artificial intelligence (AI) radically threatens traditional copyright paradigms. Critical question is raised when an AI system produces a piece of content - whether a song, artwork, or written work. If an AI system creates a piece of music, who owns the copyright? How originality is determined when the work is not the product of human creativity? Traditional copyright law recognizes human authors, it creates ambiguity regarding whether the users, developers, or AI itself own any ownership rights. These questions highlight the inadequacy of existing copyright frameworks in addressing the complexities of AI-generated content. Given that AI-generated works are progressively entering the field of creativity and potentially leading to disputes over ownership and attribution, this challenge is especially urgent.<sup>10</sup>

Moreover, works must be both unique and exhibit some degree of creativity in order to meet the legal requirements for originality and creativity under copyright law. The ability of AI to generate content based on existing works raises questions about whether such outputs meet those

---

<sup>9</sup> Copyright Protection in the Digital Age: Challenges and Solutions, Nikhil Bharadwaj

<sup>10</sup> Paul Goldstein, *Copyright's Digital Age: A Brief Overview*, 64 *Stanford L. Rev.* 191, 195 (2012).

originality criteria. According to a recent study by the European Parliament, AI-generated works may not comfortably fit under the current copyright laws since it becomes more difficult to determine the level of creativity required for protection when the author is not a human.<sup>11</sup>

Another major concern that comes up is the question of liability for copyright infringement. Determining liability can be difficult if an AI creates something that violates current copyrights, such as creating a derivative work without consent. Should the liability rest with the AI's developer, the user who prompted the creation, or the AI itself? The ambiguity complicates enforcement and accountability in the digital landscape.<sup>12</sup> Moreover, ethical questions arise regarding the use of AI in creative processes, especially when it comes to copying existing content or styles. AI systems being trained on copyrighted works has controversial legal implications because it's unclear if this is considered fair use or infringement.<sup>13</sup> Additionally, copyright infringement has become more severe due to the globalization of the digital economy. The enforcement of copyright laws across different jurisdictions has become more difficult due to cross-border content sharing. The issue has been more challenging by the growth of streaming services and online marketplaces, which frequently have international operations.

Similarly, the development of blockchain technology offers innovative solutions for copyright management, but its integration presents significant challenges. The difficulty of integrating blockchain technology into current workflows is a significant obstacle. Challenges such as interoperability, scalability, and the legal recognition of blockchain-based records require further exploration. Blockchain technology integration may be difficult for organizations, especially if they lack the financial resources or technical expertise to implement new systems successfully. Moreover, the legal standing of copyright systems based on blockchain technology is still developing, raising concerns over enforcement of smart contract laws and the acceptance of blockchain records as evidence in copyright disputes.<sup>14</sup> Concerns about data security and privacy are also crucial. Although blockchain technology provides traceable ownership and transaction

---

<sup>11</sup> R. Anthony Reese, *The Author's Rights: A Proposal for the Integration of Copyright and Moral Rights*, 21 *Cardozo Arts & Ent. L.J.* 395, 426 (2003)

<sup>12</sup> Matthew Rimmer, *The Influence of Artificial Intelligence on Copyright Law: A Tale of Two Discourses*, 5 *J. Intell. Prop.L. & Prac.* 783, 786 (2010)

<sup>13</sup> Lawrence Lessig, *Free Culture: How Big Media Uses Technology and the Law to Lock Down Culture and Control Creativity* 153-154 (2004).

<sup>14</sup> A. M. O'Brien, *Blockchain Technology and Copyright: A Review of the Current Legal Landscape*, 25 *J. Tech. L. & Pol'y* 1, 9 (2020).

history, its inherent transparency may deter creators from disclosing their works on public blockchains due to fears of unauthorized use or theft of their intellectual property. As blockchain networks grow, scalability problems may surface, which could restrict the usefulness of real-time copyright enforcement and registration.

Ownership fragmentation is another issue that blockchain technology presents. Fractional ownership of digital goods is made possible via blockchain, which makes it more difficult to enforce rights. Conflicts over decision-making, licensing, and profit-sharing can occur when ownership is held by several parties, making it more complicated for copyright holders to properly manage their intellectual property.

In this evolving landscape, copyleft emerges as a notable substitute for traditional copyright. In an effort to overcome some of the drawbacks of traditional copyright systems, copyleft advocates for the notion that works ought to be openly accessible for editing and repurposing. Adoption of copyleft, however, may lead to challenges in compliance and obligations under these licenses. The ambiguity might discourage artists from interacting with copyleft models, which would reduce the opportunity for cooperation and creativity within the digital ecosystem.

On the other hand, the concept of copywrong criticizes the traditional copyright framework for being overly restrictive and serving the interests of corporations rather than individual creators. Rethinking the definition and application of copyright is what copywrong proponents push for, citing the need for more equal access to cultural assets. The copywrong viewpoint emphasizes how the existing system frequently stifles innovation and access, and it suggests that reforms should prioritize the public interest over the rights of copyright holders.<sup>15</sup>

The conflict that exists between defending intellectual property rights and guaranteeing access to knowledge and culture is apparent as these evolving technologies continue to influence copyright law. Striking the right balance is crucial for fostering an environment conducive to creativity, innovation, and cross-cultural exchange. In order to reevaluate and revise copyright law in a way that takes into account modern realities, legislators, creators, and stakeholders must continue to have a discourse about the complexities introduced by the artificial intelligence and blockchain technology, along with the challenges presented by copyleft and copywrong ideologies. The

---

<sup>15</sup> James Boyle, *The Public Domain: Enclosing the Commons of the Mind* 144-145 (2008).

challenges presented by blockchain technology and artificial intelligence, along with inert legal systems, highlight the pressing need for a reform in copyright law.

## **CONCLUSION**

The rapid advancements in technology, globalization and shifting consumer habits have created significant challenges for traditional copyright law. These challenges are complex and require a comprehensive approach that considers economic, social and technological factors. To tackle this, legislators, industry leaders, and legal experts need to collaborate on innovative solutions that balance the needs of creators, consumers, and the people at large. This means developing copyright laws that are flexible and responsive to the fast-changing digital landscape while still upholding principles of justice, fairness, and the encouragement of creativity. By fostering a legal framework that supports innovation, fair use, and access to information, we can help ensure a thriving and sustainable digital economy.

In the digital age, a thorough and collaborative approach is essential to effectively protect intellectual property right

First and foremost, copyright laws need to be significantly revised to satisfy the demands of emerging technologies like blockchain and artificial intelligence. In today's digital world, this entails establishing unambiguous rules for fair use, identifying who owns AI-generated works, and making sure artists are well-protected. To balance author's rights with technological improvements,, the legislation must be updated to reflect contemporary content creation and dissemination practices. Examining copyleft principles may also encourage transparent cooperation and innovation, while addressing copywrong concerns can ensure that reforms do not disadvantage individual creators or limit access to knowledge. This balanced approach will help create a more inclusive environment.

Secondly, incorporating blockchain technology into copyright administration can improve enforcement and protection to a large extent. There are several advantages to blockchain technology, including the provision of secure, transparent and immutable records of ownership and transaction records. We must address issues like interoperability, scalability, and legal recognition of blockchain records if we are to tackle this challenge. Together, governments and business executives should develop standards and protocols that turn blockchain technology into a useful tool for modern copyright management.



Thirdly, legislation must be tailored to the intricacies posed by AI in creative processes. Legislation should define who owns AI-generated works, establish standards for originality and creativity when the creator is an AI system, and specify liability for AI-related copyright infringements. To mitigate risks connected with AI content, research and development, investing in research and development is essential. Additionally, ethical standards for AI-assisted creativity must be established. Campaigns for public awareness and industry training will help build a culture that respects copyright laws.

Lastly, it is imperative to harmonize copyright laws and enforcement mechanisms internationally, given the global nature of digital content. Global coordination will be beneficial in resolving cross-border issues and establishing a unified framework for the protection of intellectual property. It is also important to ensure that the enforcement practices are fair, supporting creators without stifling innovation or unfairly benefiting large corporations over individual creators.

The Governments, industry stakeholders and the general public must work together to navigate the intricacies of the digital age. By adopting these recommendations, we can build a legal and technological framework that supports creativity, encourages innovation, and protects intellectual property rights effectively.



## **Copyleft and Its Impact in the IPR Arena – An Analysis**

*Vijayendra Kumar. M<sup>1</sup>*

### **ABSTRACT**

*This paper examines copyleft, a licensing approach that leverages copyright law to promote the free use, modification, and distribution of software while ensuring those freedoms extend to all derivative works. It explores copyleft's emergence as a contrasting paradigm to traditional Intellectual Property Rights, which emphasize exclusive ownership and control. Furthermore, the analysis delves into the impact of copyleft on the IPR landscape, examining its role in fostering innovation, promoting software accessibility, and shaping community-driven development models. It explores the benefits and challenges associated with copyleft and address concerns about software monopolies. The paper also acknowledges criticisms and limitations of copyleft, such as complexities in navigating various licenses and potential constraints on commercial exploitation. By analyzing real-world examples of successful copyleft projects, the paper illustrates its practical implications and assesses its overall influence on the evolving landscape of intellectual property in the digital age.*

**Key Words:** *copyleft, commercial exploitation, exclusive ownership, innovation, IPR landscape*

### **For Citation:**

---

Vijayendra Kumar. M, 'Copyleft and Its Impact in The IPR Arena – An Analysis' (2024) Special Issue JSS Journal for Legal Studies and Research 11-23-<<https://www.jsslawcollege.in/jsslc-online-journal/>>.

---

---

<sup>1</sup> Assistant Professor, VIT School of Law, Chennai,  
email id: [vijayendrakumar.m@vit.ac.in](mailto:vijayendrakumar.m@vit.ac.in) .



### **Introduction**

Copyleft is a concept that emerges within the framework of copyright law, offering a degree of freedom and flexibility that enables users to modify and distribute software and programs, which was not feasible under the traditional copyright regime. It would be reasonable to conclude that the notion of copyleft fosters a shared ownership among multiple individuals, while operating within the constraints and parameters of copyright law. In the contemporary digital landscape, traditional copyright frameworks have become increasingly restrictive and outdated. The concept of copyleft offers users of the internet domain the necessary freedom and liberty to design and program software that caters to diverse cultural contexts. The utilization of various programs and software is integral to the advancement of the computer programming realm. Consequently, it is recommended that at the very least, the digital world be governed by the principles of copyleft licensing, if not universally applied.

Traditionally, IPR plays a crucial role in fostering innovation by:

**Providing Incentives:** Exclusive rights incentivize individuals and businesses to invest time, effort, and resources in research and development, knowing they can reap the commercial benefits of their creations.

**Attracting Investment:** IPR protection enhances the value of inventions and creative works, making them more attractive to investors and licensees, further fueling innovation.

**Facilitating Market Entry:** Exclusive rights provide a competitive advantage, enabling creators to establish themselves in the market and recoup their investments.

However, the emergence of alternative models like copyleft challenges these traditional notions, prompting ongoing debates about the optimal balance between incentivizing innovation and ensuring broader societal access to knowledge and technology. Copyright grants the holder exclusive rights over the distribution and use of a software work. In contrast, copyleft licenses impose a requirement that any modifications to the original copylefted work must be made available under the same open-source licensing terms. This "viral" effect of copyleft licenses can be categorized into two main categories. Weak Copyleft licenses require that any derivative works based on software under this license must also be distributed under the same, weak copyleft, licensing terms. However, it is still possible to link to or incorporate weak copyleft code into software under a different license. In essence, a weak copyleft license only applies to the original copylefted work itself.

In contrast, Strong Copyleft licenses impose a more expansive requirement. They mandate that any software which links to or otherwise incorporates their code must be licensed under compatible open-source licensing terms, which are a subset of the available open-source licenses. Due to this broader applicability, these licenses are often referred to as "viral" in nature. A strong copyleft license extends to all derivative works and software components within the package.

The General Public License is the most widely adopted copyleft license. It grants users four fundamental freedoms:

- a) the freedom to use the source code for any purpose,
- b) the freedom to modify the code,
- c) the freedom to share the source code with others, and
- d) the freedom to distribute any changes made to the code.
- e) Notably, the GPL does not prohibit the sale of derivative works based on the original source code; rather, it mandates that the source code must be made freely accessible to anyone who desires it.

### ***Copyleft: A Contrasting Paradigm within the IPR Landscape***

While traditional IPR emphasizes exclusive rights and control over creations, copyleft emerges as a contrasting paradigm, promoting a more open and collaborative approach to intellectual property, particularly within the software realm. Instead of restricting use and modification, copyleft, often manifested through reciprocal licenses, grants everyone the freedom to:

**Use:** Employ the software for any purpose.

**Modify:** Adapt the software to suit their needs by accessing the source code.

**Distribute:** Share copies of the original or modified software.

However, copyleft is not about relinquishing all rights. It mandates that these same freedoms extend to all subsequent users of the software, including any modifications or derivative works. This is typically achieved through reciprocal licensing, where derivative works must inherit the original's copyleft terms.

In essence, copyleft leverages copyright law to ensure that software remains a shared resource, fostering a community-driven approach to development and innovation. This stands in stark contrast to traditional IPR's focus on individual ownership and control, presenting a compelling alternative vision for managing intellectual property in the digital age.

The concept of copyleft has expanded beyond the realm of computer software as it has gained increasing prominence. In 2001, Professor Lawrence Lessig of Stanford Law School established the Creative Commons Organization, a non-profit charitable entity dedicated to developing a diverse array of licenses that enable authors, musicians, artists, and other creators to make the fruits of their labor available to the public, without imposing the restrictive limitations typically associated with conventional copyright protections. Creative commons licenses allow users to freely share and engage with the work in question, provided they attribute the work as directed by the author or licensor. Similarly, the Free Art License framework in France and other nations aims to facilitate the diffusion, sharing, and appropriation of artistic works, akin to how the General Public License emphasizes the availability of source code for computer programs.

This suggests a reverse form of the copyleft model, where the producer would be required to maintain the open terms of the license as a condition for their standard being adopted by consumers relying on the producer's open-source offerings. In contrast to the typical copyleft approach, the producer would also be bound by the same obligations under this modified copyleft framework. The free software movement has faced criticism for creating obstacles in the development of viable and profitable software. The terms of the GPL license are such that subsequent rival versions of the software cannot be reasonably priced higher than the cost of reproducing and distributing the GPL-licensed software. The free software movement has been criticized for potentially undermining the commercial software sector.

Computer software is currently protected as a form of copyrightable subject matter. Article 4 of the 1996 WIPO Copyright Treaty stipulates that computer programs are recognized as literary works under the Berne Convention, and this protection extends to computer programs regardless of their mode or form of expression. The "TRIPS Agreement" affirms that the computer programs, whether it is in source or object code, shall be protected as literary works under the Berne Convention. Similarly, the Indian Copyright Act of 1957 has been aligned with these international norms. Section 2(o) of the Act classifies computer programs as literary works. Furthermore, Section 14 read together with Section 17 grants the copyright owner exclusive rights over the distribution, adaptation, modification, reproduction, and assignment of the computer program. Additionally, the Act under Section 22 provides a copyright term of 60 years for the copyright holder.

### **Key Attributes of Copyleft**

Copyleft is derived from the Open-Source Movement. The open-source movement advocates for collaborative development. Consequently, some of the prominent features of copyleft include:

- Allowing unrestricted selling or redistribution of the software;
- Permitting the distribution of modified or derivative versions;
- Enforcing the same licensing terms for all recipients of the software;
- Making the source code available in a format that facilitates software development;
- Acknowledging the contributions of each author for any modifications; and
- Providing no warranties regarding the software's functionality or potential infringement of intellectual property rights.

The concept of copyleft, which originated in the domain of computer programs and the internet, has now expanded into other realms of work and knowledge. Copyleft licenses are increasingly being embraced and adopted across diverse fields, including art, literature, and science. Scientific research, driven by the primary objectives of disseminating knowledge, fostering advanced innovations, and recognizing authorship of work and inventions, has found the copyleft license to be a suitable tool for achieving these aims.

Some scholars argue that the concept of copyleft is grounded in the fundamental rights of individuals, such as the right to access culture and the right to education. Furthermore, they contend that copyleft is aligned with various constitutional and other legal principles that validate and uphold these rights.

The legality of copyleft license agreements had previously been a subject of debate. However, the case of “**Artifex Software v. Hancom**”<sup>2</sup> has provided clarity on the legal status of copyleft licenses. In this case, the court recognized the validity of the copyleft GNU-GPL license, ruling that the defendant was required to share the modified version of the copylefted software.<sup>3</sup> This decision represents a positive development for individuals and creators who wish to utilize free licenses such as copyleft for their works.

---

<sup>2</sup>Case No.16-cv-06982-JSC (N.D. Cal. Sep. 12, 2017).

<sup>3</sup><https://copyleft.org/guide/monolithic/> (Last accessed on 21.07.2024 at 04.22 PM)

**Copyleft and Creative Commons**

Creative commons licenses provide a framework in which creators can grant users permission to utilize their work without infringing on the creator's copyright. The concept of copyleft licensing is largely analogous to the Creative Commons approach. Copyleft can be viewed as a specific type of Creative commons license. While the specific requirements of the two licensing models may differ, their underlying purpose is similar: to recognize and respect the original creator's work by adherence to the essential conditions set forth in each respective licensing system.

The free software movement has been criticized for potentially undermining the commercial software sector. The terms of copyleft licenses, such as the GPL, can make it difficult for independent commercial software developers to price their products higher than the cost of reproducing and distributing the GPL-licensed software. This dynamic fundamentally challenges the traditional business models of the commercial software industry. While the free software philosophy aims to promote user freedoms, it has been argued that this approach may inadvertently infringe on the liberty of others in the market to pursue their own commercial interests.<sup>4</sup>

Rather than posing a threat to competitors, proprietary software leaders could benefit by developing their own innovative software under the GPL. In an environment of continuous innovation, society would ultimately gain, in contrast to the current atmosphere of acrimony. To effectively realize this goal, the “Free Software Foundation” and “the Open Source Initiative” need to unite and reconcile their differences as soon as possible. While this may seem idealistic, it appears to be the only viable path to ensuring the realization of Stallman's vision.<sup>5</sup>

The future success of the GNU Project remains to be seen, but those involved are cautiously optimistic that it will meet expectations.<sup>6</sup> Stallman, despite his impracticality and unyielding nature, initiated a remarkable endeavor, the full implications of which are not yet fully realized. It would be inaccurate to solely attribute the challenges in the digital realm to Microsoft. Microsoft and similar technology companies deserve significant credit for transforming computers from complex devices accessible only to specialists into readily usable tools that even

---

<sup>4</sup><https://certificates.creativecommons.org/cccertedu/chapter/3-3-license-types/> (Last accessed on 21.07.2024 at 4.20 PM)

<sup>5</sup><https://web.archive.org/web/20140502033143/http://iplj.net/blog/wp-content/uploads/2009/09/Article-OPEN-SOURCE-SOFTWARE-THE-SUCCESS-OF-AN-ALTERNATIVE-INTELLECTUAL-PROPERTY-INCENTIVE-PARADIGM.pdf> (Last accessed on 21.07.2024 at 10.21 PM)

<sup>6</sup><https://www.gnu.org/licenses/gpl-3.0.html> (Last accessed on 21.07.2024 at 10.18 PM)

technologically inexperienced individuals can operate with ease. However, there are instances where these companies may adopt less-than-benevolent attitudes, prompting figures like the MIT programmer to challenge them. It is then incumbent upon Microsoft and its peers to confront these challenges head-on. If these companies truly possess the level of capability attributed to them, they are likely to emerge victorious in such confrontations.

### **Benefits of using Copyleft**

Creators of intellectual property must decide how to license their work. Licensing determines who can use, modify, distribute, and benefit from the work, and under what conditions. There are various types of licenses, ranging from restrictive to permissive. One particularly interesting and controversial type is copyleft. Copyleft utilizes the existing copyright framework to ensure that the work and its derivatives remain free and accessible for everyone to use, share, and improve. In this section, we will explore the benefits of using copyleft from different perspectives.

**The Creator:** Using copyleft offers several benefits for creators.

Firstly, it allows them to experience the gratification of contributing to the public good and witnessing their work being utilized and improved upon by others. Additionally, they can benefit from the feedback, collaboration, and recognition that come with openly sharing their creations. Copyleft also safeguards the creator's rights and interests by preventing others from appropriating or exploiting their work without reciprocating. For instance, the GNU General Public License is a copyleft license that mandates anyone modifying or distributing a GPL-licensed work to release their changes under the same license, ensuring the work remains freely available and accessible to all.

**The User:** The user can gain significant advantages from the liberties provided by copyleft licensing. They are free to utilize, modify, and disseminate the work as they see fit, without being constrained by fees, permissions, or restrictive terms. Additionally, users can access and learn from the source code or original material, enabling them to enhance the work to better suit their specific requirements and preferences. Crucially, copyleft also encourages innovation and diversity by granting users the ability to create new and original works based on existing ones. This is exemplified by the Linux operating system, which is licensed under a copyleft framework and has spawned numerous variants and distributions, such as Ubuntu, Debian, and Fedora, each tailored to serve the needs of different users and purposes.



**The Society:** Society can benefit from the increased dissemination and accessibility of knowledge, information, and cultural resources facilitated by copyleft. Copyleft promotes principles of openness, collaboration, and sharing, which are crucial for the progression of science, technology, education, and the arts. Copyleft also fosters social justice and equity by reducing barriers and inequalities in the access and distribution of intellectual property. For instance, the copyleft-licensed Wikipedia platform enables anyone to edit and utilize its free, reliable information spanning a diverse range of subjects and languages.

**The Environment:** The Environment can benefit from the reduced waste and pollution facilitated by the copyleft model. Copyleft promotes the reuse and recycling of existing resources, rather than the creation and consumption of new ones. Furthermore, copyleft supports the development and adoption of sustainable and ethical practices by enabling the sharing and learning of solutions and experiences among people. For instance, the Open Source Ecology project, which is licensed under a copyleft agreement, aims to create and disseminate designs and instructions for building low-cost, environmentally friendly machines and tools for various purposes.

### **Exemplary Copyleft Initiatives**

Copyleft has proven pivotal in cultivating a collaborative and sharing-oriented culture within the domain of intellectual property. This section examines several prominent examples of successful copyleft projects, highlighting the diverse array of initiatives that have embraced this approach.

**The GNU Project**, a highly influential copyleft initiative founded by Richard Stallman, has been instrumental in advancing the free software movement. The GNU General Public License empowers users with the freedom to utilize, modify, and disseminate software, while simultaneously safeguarding the rights and interests of the broader community.

**Creative Commons licenses**, while not strictly copyleft, have been extensively adopted to allow creators to share their work with specific permissions. These licenses provide a flexible framework that empowers artists, writers, and content creators to define the terms and conditions under which their work can be utilized and distributed.

**Wikipedia**, the world's largest collaborative encyclopedia, functions under a copyleft licensing framework known as the Creative Commons Attribution-ShareAlike license. This licensing model guarantees that the knowledge contributed by its vast network of volunteer editors remains freely accessible and open to further expansion and elaboration by others.

**Open Street Map** is a collaborative geographic mapping initiative that enables users to freely access, modify, and distribute spatial data through the adoption of copyleft licensing models, such as the Open Database License. This approach fosters innovation and collaboration within the domain of mapping, as users are empowered to contribute, build upon, and share geospatial information.

**The Linux operating system**, which is widely used, exemplifies the influence of copyleft principles. Distributed under the GNU General Public License, Linux has prospered due to the collaborative endeavors of a global community of developers who contribute to its ongoing refinement and advancement.

The examples discussed demonstrate the profound influence of copyleft principles across diverse fields, fostering an ethos of openness, collaboration, and the democratization of knowledge and technological resources. By embracing these principles, the highlighted projects have pioneered pathways towards a more inclusive and accessible digital ecosystem.

#### **Validity of the Copyleft Clause in India**

Currently, the Indian legal framework does not have any specific legislation addressing Copyleft licenses or Open-Source Software. These concepts are not explicitly recognized under the Information Technology Act, 2002, the Indian Patent Act, 1970, or the Copyright Act, 1957. Nonetheless, the legality of Copyleft licenses is upheld through the existing laws governing copyright and contractual arrangements.

In the case of “**Tata Consultancy Services v. State of Andhra Pradesh**”<sup>7</sup>, the Supreme Court recognized software as an intellectual property protected under the "literary works" provision of Section 2 of the Indian Copyright Act, 1957. Furthermore, Section 14 of the Act grants copyright holders the exclusive right to distribute copies of their computer programs. However, the language of this section is ambiguous regarding whether such distribution must be free of charge. This ambiguity allows developers operating under copyleft agreements to license and redistribute their software freely. Although the Indian Copyright Act does not explicitly acknowledge open-source software, it does provide a legal framework for copyright holders to establish copyleft licensing arrangements within the Indian legal system. The application of the copyleft concept to

---

<sup>7</sup> AIR 2005 SC 371

computer software in India is governed by the framework provided under the Copyright Law and the general licensing principles established in the Indian Contract Act, 1872.

### ***Legal Considerations for Copyleft Licensing***

A Critical component of copyleft is the legal structure that enables and upholds it. Copyleft licenses operate on the premise of employing copyright law to grant users the liberty to use, modify, and disseminate a work, provided they maintain the same rights for others. Nevertheless, copyleft licensing also entails certain legal complexities and factors that must be addressed by both creators and users of copyleft works. Some of these include:

**Selection:** Selecting the appropriate copyleft license is crucial, as there are various types, each with distinct parameters, terms, and conditions. For instance, the GNU General Public License represents a robust copyleft license, requiring any derivative work to be licensed under the same GPL. Conversely, the GNU Lesser General Public License is a weaker copyleft license, permitting linking with non-copyleft code. Additionally, the Creative Commons Attribution-ShareAlike license is a copyleft license applicable to non-software works, enabling remixing and adaptation provided the new work is also licensed under CC BY-SA. The choice of the copyleft license should be based on the nature, purpose, and intended audience of the work, as well as its compatibility with.

**Obligations on Users:** Users of copyleft-licensed works must fulfill the obligations stipulated by the copyleft license. This typically entails providing the source code, attributing the original author, and distributing any derivative works under the same copyleft license. Failure to comply with these requirements may lead to legal ramifications, such as infringement claims, termination of rights, or monetary damages. Additionally, users should be cognizant of potential conflicts between the copyleft license and other legal or contractual commitments, including patents, trademarks, or non-disclosure agreements.

**Upholding the Moral Rights of Authors:** While the copyleft licenses do not impact the moral rights of authors, these non-economic rights are crucial in safeguarding the personal and reputational interests of creators. Moral rights encompass the entitlement to be recognized as the author, the ability to object to any distortion or alteration that compromises the work's integrity, and the privilege to withdraw the work from circulation. Users of copyleft-licensed works must respect the moral rights of authors and seek their consent before making any changes that may affect their moral rights.

### ***Challenges and Limitations of Copyleft Licensing***

Copyleft is a legal framework that enables authors to permit others to utilize, alter, and distribute their work, provided the same rights are preserved for derivative works. This approach is frequently adopted by software developers, artists, musicians, and writers who aim to share their creations with the wider public and foster collaboration and innovation. Nevertheless, copyleft is not without its challenges and criticisms. Some of the principal concerns associated with copyleft include:

**Incompatibility:** Compatibility issues can arise when works licensed under different copyleft frameworks are attempted to be combined. For instance, the widely adopted GNU General Public License for software is incompatible with the Creative Commons Attribution-ShareAlike license commonly used for creative and educational content. This incompatibility means that a software program licensed under GPL cannot directly incorporate CC BY-SA licensed media without securing additional permissions from the original authors, and vice versa

**Challenges on Enforcement:** Enforcement of copyleft licenses can be challenging, as they rely on the voluntary compliance of users with the specified terms and conditions. However, there may be instances where individuals or entities violate the copyleft license by utilizing, modifying, or distributing the work without adhering to the requirements, such as providing the source code, crediting the original authors, or maintaining the copyleft status of the derivative work. In such cases, the original creators may need to pursue legal action to enforce their rights, which can prove to be costly, time-consuming, and subject to uncertainty. Additionally, some jurisdictions may not recognize or uphold the validity of copyleft licenses, rendering them ineffective or unenforceable within those particular legal frameworks.

**Lack of Incentives:** Some critics contend that copyleft licenses may diminish the incentives for authors to create original works, as these licenses restrict their ability to financially or reputational benefit from their creations. The argument is that by allowing anyone to use, modify, and distribute the work without requiring credit or compensation, copyleft licenses undermine the potential rewards for authors. Additionally, these critics suggest that copyleft licenses may deter potential users or collaborators from engaging with the work, as they may prefer more flexible or permissive licenses that do not impose similar obligations or restrictions.

### ***Adopting Copyleft to Foster Collaborative Knowledge Sharing***

Copyleft represents not merely a legal mechanism, but also a social and ethical movement that challenges the prevailing paradigm of “intellectual property rights”. By advocating for the principles of freedom, collaboration, and reciprocity, copyleft encourages creators to share their work with others and build upon the creations of others. This dynamic process fosters a positive feedback loop that enhances the quality and diversity of the collective output. Some of the key benefits of the copyleft approach include:

Copyleft promotes increased access and participation by reducing barriers for both creators and users of intellectual property. The ability to use, modify, and distribute copyleft works, while adhering to the same terms, facilitates broader engagement in the creation and dissemination of knowledge and cultural resources, allowing more individuals to benefit from the existing intellectual and creative commons.

Copyleft licensing fosters innovation and diversity by empowering creators to build upon and remix existing works, synthesizing diverse elements and perspectives to generate novel creations. Copyleft-licensed works can also serve as valuable resources for other creators, who can study and emulate the techniques and approaches employed, leading to the emergence of innovative ideas and expressions, as well as the preservation and enrichment of cultural heritage. Copyleft promotes enhanced collaboration and community among creators who share common objectives. By adopting a shared license, copyleft creators demonstrate their eagerness to cooperate and contribute to the public good. Additionally, copyleft cultivates a sense of belonging and identity within the copyleft community, enabling members to communicate, coordinate, and support one another. Copyleft communities can also harness their collective influence to advocate for their rights and interests, and to challenge prevailing norms.

### **Conclusion**

Copyleft models must balance the freedom granted to creators and users with the responsibilities inherent in their implementation. Copyleft licenses provide a high degree of creative liberty, allowing users to modify and distribute works. However, this freedom is tempered by certain obligations, such as the requirement that derivative works remain openly accessible and that the original authorship and licensing terms be acknowledged. This balance may not align with the preferences or goals of all creators or users, who may desire greater control or flexibility over

their contributions, or who may be unwilling to abide by the stipulations of the copyleft framework.<sup>8</sup>

Copyleft works often face competition from proprietary alternatives that benefit from greater resources, recognition, and market dominance. Proprietary products may provide enhanced quality, functionality, or usability, thereby attracting more users and customers. Additionally, proprietary entities may undermine or appropriate copyleft works by reproducing, incorporating, or exploiting them without adhering to the principles of copyleft.

Despite the challenges it faces, copyleft has demonstrated its viability and value as a means of sharing intellectual property and fostering collaborative innovation across diverse domains. Copyleft has also inspired and influenced other initiatives aimed at promoting the openness and accessibility of knowledge and culture, such as “open source, open access, open data, open education, and open science”. Copyleft is not a rigid or static concept, but rather a dynamic and evolving one that can adapt and respond to the changing needs and circumstances of the creative community and society as a whole.<sup>9</sup>

The advent of digital and networked technologies ushers in a new era, presenting both opportunities and challenges. Copyleft emerges as a promising approach to leverage these technological advancements, addressing the inherent risks and complexities. By embracing the principles of copyleft, we can foster a more inclusive, diverse, and innovative cultural landscape, as well as a more democratic, equitable, and sustainable societal framework.

---

<sup>8</sup>Fortunato Laura and Galassi Mark (2021). The case for free and open source software in research and scholarship *Phil. Trans. R. Soc. A.* **379**20200079. <http://doi.org/10.1098/rsta.2020.0079>.

<sup>9</sup> Kapitzke, C.Dezuanni, M., & Iyer, R.(2011) Copyrights and Creative Commons Licensing: Pedagogical Innovation in a Higher Education Media Literacy Classroom. *E-Learning and Digital Media*, 8(3), 271-282. <https://doi.org/10.2304/elea.2011.8.3.271>.



---

## Copyrightability of AI-Generated Artistic Work

*Rubasri P<sup>1</sup> & Srimathi S<sup>2</sup>*

### ABSTRACT

*Why does the advancement of Artificial Technologies result in ambiguity and remain problematic in the Intellectual Property (IP) world, particularly in copyrights? The regime of copyright has come a long way from the 15th century with the advent of the printing press, which enhanced the multiplicity of artistic works. Especially, the mechanism of copyright began to be fostered with the advancements in Information Technology (IT), digital communication, software development, and other systematic refinement in science and technology. These developments have never created any problematic situation or ambiguity. Rather, they upgraded the entire copyright mechanism. The innovation and influence of Artificial Intelligence intrude as a breakthrough in this smooth functioning because of revolution in the innovative system capable of deciding human intervention. The process of conferring copyrights to the works of Artificial Intelligence created many reasonable doubts about its performance, uniqueness of the framework, technical complexities with Machine Learning, and finally the legality of such artistic works. This research paper specifically deals with the copyrightability of artistic works by Artificial intelligence exploring technical and legal intricacies internationally.*

**Keyword:** Artificial Intelligence, Copyright, Machine learning, IP Rights.

### For Citation:

---

Rubasri P & Srimathi S, 'Copyrightability of AI-Generated Artistic Work' (2024) Special Issue JSS Journal for Legal Studies and Research 24 -31 <<https://www.jsslawcollege.in/jsslc-online-journal/>>.

---

---

<sup>1</sup> Chennai Dr. Ambedkar Government Law College, Pudupakkam"

<sup>2</sup> Chennai Dr. Ambedkar Government Law College, Pudupakkam"  
Email: [srimathisrinivasan1207@gmail.com](mailto:srimathisrinivasan1207@gmail.com)



## INTRODUCTION

Artificial Intelligence (AI) is a new chapter in technology which enables human intelligence and problem-solving capabilities to be incorporated into computers and machines including software. Artificial Intelligence (hereinafter referred to as “AI”) is a combination of Machine Learning (ML) and Deep Learning, which involves the development of AI algorithms and decision-making as human does. A breakthrough in this is Natural Language Processing (NLP).

Copyright is the type of IPR which protects the original artistic works of an author which is in the tangible form of expression. Copyright also ensures the exclusive rights of authors, subject to certain restrictions<sup>3</sup>. These copyright protections last for certain years depending on the nature of the work. The literary and artistic works ranging from books, music, paintings, sculpture, films etc,

The term Artificial Intelligence was coined by McCarthy in 1955 and defined as “the science and engineering of making intelligent machines”<sup>4</sup>. Intelligence can be interpreted as the ability to learn and perform suitable techniques to solve problems and achieve goals. Simply, a robot that is flexible, accurate and consistent. The dictionary meanings are as follows:

1. AI is concerned with development with the development of computers that are capable of engaging in human-like thought processes such as logical thinking.
2. The mechanism in which some capabilities are human-like such as learning, flexibility etc.,
3. Simply, the study of techniques to use computers more effectively<sup>5</sup>.

Notably, these generative AI are competent enough to generate images, videos, and even creative artistic works<sup>6</sup>. The moment when AI begins to create artistic works, Intellectual Property Rights (IPR) come into focus. The focus strives deeper with the acknowledgement of AI’s skills in composing music, writing blogs, articles, novels, stories, poetry, generating

---

<sup>3</sup>What is Copyright, Copyright.gov, (last accessed on 01 Augustt 2024, 10.00 PM) <https://www.copyright.gov/what-is-copyright/#:~:text=Copyright%20is%20a%20type%20of,a%20tangible%20form%20of%20expression.>

<sup>4</sup> Christopher Manning, Artificial Intelligence Definitions, Stanford University (2020), <https://hai.stanford.edu/sites/default/files/2023-03/AI-Key-Terms-Glossary-Definition.pdf>

<sup>5</sup> Joost N. Kok, Egbert J. Boers, Walter A.Koters, Peter vander Putten, Artificial Intelligence: Definition, Trends, Techniques, and Cases, UNESCO - EOLSS, <https://www.eolss.net/sample-chapters/c15/E6-44.pdf>

<sup>6</sup> What is Artificial Intelligence, IBM, (last accessed on 01 Augustt 2024, 10.00 PM) <https://www.ibm.com/topics/artificial-intelligence>



paintings, etc., undertaking various industries like entertainment, sports, aviation etc., The tussle between the recognition of the artistic, and literary works of AI and the Copyright had already begun. This research paper proposed certain hypotheses in this regard by analyzing various technical and legal aspects. The balance between these two regimes becomes mandatory for a sustainable balance and relation in the role of technology in reviving literature in the modern era.

#### **STATEMENT OF THE PROBLEM:**

The computer and software made artistic works were never disputed. The computer-generated works are considered important implications because they were considered alternatives and enhanced platforms without the physical usage of artistic tools such as paper, pen, paintbrush, and canvas etc., These works qualify the copyright criteria as they were completely human-made with technical assistance where the originality and uniqueness are retained. But Artificial Intelligence is quite different as they do these artistic works with their diligence as they are equal to human intelligence. However, this creates reasonable doubts about whether AI is capable of creating content unique without human intervention. The AI is legally developing in every aspect. Till now, we have only the European Union Artificial Intelligence Directive, 2024 on the matter of AI. But the Act's scope remains silent in the IPR ambit. Additionally, the judiciary around the world interprets concerns in various facts. On the other hand, the technology is also evolving in upgrading the machine and deep learning of AI to the par of excellence. Here the problem merges, and the doubt that whether the AI is entitled to copyright is to be resolved. This problem has to be addressed further through competent statutes, directives, or guidelines.

#### **SIGNIFICANCE \ AIM OF THE STUDY:**

In today's technological advancements science is taking us to a parallel universe where machines are replacing human beings in work, employment and even entertainment. As a continuation, now AI aims to replace human intelligence, human creativity, and human artistic works. This can be perceived in two different senses. Firstly, AI can be construed as assistance to human intelligence in promoting the quality of the work, enhancing time management, and promoting work efficiency. Secondly, as a competition to humans in creating content and other creative work, the rival between humans and so-called machines' intelligence exists. The logical question of testing the creativity and uniqueness of the AI content is increasing this rivalry. These two aspects are required to be investigated and solved. This urgent need remains the ultimate respiration in solving this tussle. This research breathes the suggestions in analyzing the aspects

and other intricacies in these aspects. This study aims to examine these aspects and discuss the legal positions in various countries and several other modules in various countries. This study aims to explore these aspects.

#### **LITERATURE REVIEW:**

There is a plethora of resources that discuss the competence of Artificial Intelligence in creating content and artistic works. Whereas some papers discover the copyrightability matter of AI works.

1. **Intellectual Property by Justice Professor B.N.Srikrishna:** The authors refer to this book for copyright protection, and it is very useful for our research; we have gathered insights from this book on AI and copyright. It is also helpful in analyzing various case laws. We have submitted that AI-generated contents deserve copyright protection even under International legal regimes. Notably, no one is the owner of the AI-generated, so it is not capable of copyright protection. The chapter of the book also talks about the Copyright Protection Act of 1957.
2. **Intellectual Property by NS. Sreenivasulu:** In this research paper, we have taken the concept of definition of the Artificial Intelligence and the Turing test. Professor John Carthy in 1955 defined the science and engineering of making intelligent machines, and also Deep learning about Machine learning (ML) draws from computer science, statistics, psychology, neuroscience, economics and control theory, and also about the AI algorithm.
3. **History and Evolution of Copyright in India by Suvrashi Sarkar:** In this research paper we have studied the history and evolution of the copyright and amendment of rights in artist works, cinematography films and sound recording, by providing that right to reproduce an artist's work to make a copy of the cinematography films and storing by electronic.
4. **Research on the copyright Protection of Artificial Intelligence Generation by Jie Zhang and Xin Xie's:** In this research paper I have studied the law related to copyright protection of Artificial intelligence generation and also how important role Artificial intelligence plays and obstacles to copyright protection of Artificial intelligence

generators in the media environment and suggestions for copyright protection of Artificial intelligence generation in the Intelligent media environment.

5. **The International Copyright System by Ruth Lokediji:** I have collected information in this book about copyright systems in other international countries. Copyright prevails in so many countries like America, Australia, Canada, Israel, Japan, France, Germany, UK, China et.,. These countries also do not provide copyright protection to Artificial intelligence Generators because of the absence of the owner. These countries also follow laws related to copyright protection.

### **RESEARCH METHODOLOGY:**

The authors have used the doctrinal methodology of research to complete this paper. The authors also analyzed various available resources such as books, articles, research papers, case laws, legislation, and all other resources. This paper aims to conclude/inferences and further scrutinize whether the hypothesis is manifested or not.

### **HYPOTHESIS:**

The research paper is working on the following hypothesis and will further scrutinize whether the hypotheses are true or not:

- a. That Artificial intelligence is not competent in generating creative and unique artistic works as humans do.
- b. That the Artificial Intelligence denies the identity and orientation of the natural person.
- c. That the exclusive right i.e. Copyright is denied to the creative and artistic works generated by Artificial Intelligence.

### **AI IN GENERATING CONTENT:**

Artificial intelligence is capable of creating automated content. Specifically, programs like Natural Language Generation (NLG) permit the AI to generate content that resembles human writing<sup>7</sup>. Additionally, these contents are personalized in making dynamic content like campaigns, blog posts, stories etc., The ultimate requirement behind AI-generating content is the

---

<sup>7</sup> A. Kumar and S. Garg, "The Role of Artificial Intelligence in Digital Marketing," *International Journal of Scientific Research in Computer Science, Engineering and Information Technology*, vol. 6, no. 2, pp. 75-80, 2021, doi: 10.32628/CSEIT2162112.

slow process of traditional content creation which involves various stages such as research, drafting, proofreading, editing, finalizing, reviewing, and publishing. This man-made process is complex, time-consuming and subjected to errors. This deficiency is reverted in the usage of AI for content creation which simplifies this complex procedure into simpler one facilitating productive content creation. The advancements such as Natural Language Processing (NLP), Machine Learning (ML), image recognition, voice recognition, and the content curation system promote the quality of AI-generated content.

The mechanism behind AI content creation: AI creation tools exhibit nature & skills such as writing, drafting, designing, coding, story writing etc., the content creation is based on the input and prompts the end-users to give. These wide ranges of tools include ChatGPT, Meta AI, OpenAI etc. The structure-function on the utilization of data fed in the database and thus we receive the well-structured results. Hence, the AI contents lack the originality and uniqueness. The content created by AI is also subjected to ethical and technical issues such as bias & discrimination on gender, race, and culture, subjected to perpetuating racism, and harmful forms in case of exposure to biased, influential prompts. Further, they are subjected to plagiarism and thus, the quality of AI-generated content decreases with the flow.

### **AI-GENERATED WORKS DESERVE COPYRIGHT PROTECTION**

AI systems generate innovative, creative, original content like art, music, literature, and news. The economic investor invests in resources to create AI models, it also helps in the cultural, social, and economic recourse and development of AI, so it will protect the intellectual property it needs copyright protection. But at the same time there was a lack of ownership AI generated didn't have a human author, it became a challenge to the copyright concepts. If AI holds the copyright, there may be a question of who is the author and controller, leading to over-protection and users can misuse it. There is a question, 'Is AI-generated 'original'? It leads to challenges in rated by natural persons and the decision-making process. AI and other computer programs do not get copyrighted. The authors of AI-generated works are not human but generated by natural persons. So there is a debate about the AI or developers can hold copyright protection. They may give to the code and software, not to the output or result produced by the AI. The US court explained *Burrow-Gilles Lithographic Co. v. Sarony*. The Court discussed the possibility of granting copyright protection to a product which is the output of the machine. It was held that purely mechanical labor is per se not creative, thus narrowing the scope of their protection.

Hence, if a strict approach like this were to be applied to AI systems granting copyright for works created would be difficult as AI-generated work is not per se creative. There are various judgments, In *Alferd Bell & Co. Ltd. v. Catalda Fine Arts Inc.* that to be original, it must not be copied from any other artistic work of similar character.

#### **AN ANALYSIS OF THE INTERNATIONAL IPR ARENA:**

There is a trend towards copyright protection granted only to human beings. In India, the copyright concept was taken from the US. In the US Copyright 1976 says that copyright protection will be given to the works which is created by the author. In *Naruto v. Slater*, case law makes it clear that the author needs to be a human being and the original creation must be the fruits of his intellectual labour. There have been demands from various corners of the US for computer-generated works but it always gets deferred as future issues. Australia also follows the US system. The Australia Copyright Act 1968 provides copyright protection only to the human not to the AI or computer programmer. The full Federal Court of Australia in *Acohs Pty. v. Ucorp Pty. Ltd.* refused to give copyright protection to the computer programmer's HTML code required for developing information sheets. No protection was given either to the computer programmer or the end user providing necessary input as there was no human author. In the Court of Justice of the EU in *Infopaq International A/S v. Danske Dangblades Forening* held that copyright protection would be afforded only to those works which reflect the author's intellectual creation. The work should reflect the personality of the authority and should have the personal touch of the author. This effectively eliminates AI or other computer programmes. In the UK there is copyright protection for computer-generated works under Article 9(3) of the Copyright, Designs and Patents Act of 1988. In China copyright protection is nuances. They also have challenges in providing copyright protection to AI-generated. According to the *Isreal Copyright Protection Act 2007*, copyright protection is given to the work's creators by human authors like in all other jurisdictions. Japan, Canada, India, and France are also not able to receive copyright, however, AI-generated involves human input and results, and the human contribution can able to claim copyright protection.

#### **CONCLUSION:**

The research paper has been concluded after analyzing all the aspects of the copyrightability of AI by analyzing the competence of AI in content creation, investigating the existing IPR

mechanism through which copyright is granted and holding that the above hypotheses are true and manifest. The conflict between emerging AI capability and IPR's strict eligibility criteria makes the structure complex and it is impossible for AI to pass the criteria. Some of how copyrightability is possible are:

1. That AI technology is ensuring hundred per cent creative and unique artistic and creative works.
2. That AI has to be recognized as a natural person in every jurisdiction around the world, for which AI has to be morally and ethically qualified remaining a mystery to be decided by science.
3. That the content created by AI should not overlap with the existing content or as output of the combined existing contents.
4. That the policy makers, legislatures, society, and public domain must be with constructive mindset in order to collaborate to harness the potential of Artificial Intelligence in advancing literature and science.



---

## **Copyright in the Age of Artificial Intelligence: Addressing Authorship, Ownership, and Legal Frameworks**

Ashhad Sajid Khan<sup>1</sup>

### **ABSTARCT**

*AI is developing so fast that it is truly affecting a range of areas including intellectual property law and creativity. This paper deals with the ethical-legal challenges, which arise when the AI and copyright law intersect, with a specific focus on the legal system of India. The traditional concepts of authorship and ownership that AI-generated content is more commonly encountered are being challenged. This paper revolves around the issue of who should be recognized as the creator and who is the legitimate owner of these creations. The first part of this paper explores the concept of artificial intelligence (AI) and how it is utilized in creative ventures. The paper further takes the reader through the basic notions of copyright law and the problematization of intellectual property rights. Using important case studies, legal changes, and academic debate it also discusses the problems of determining the origin and rightful possessor of AI-produced works. The research shows that systemic shortcomings in the current copyright laws are a hindrance to the use of artificial intelligence for creativity, especially copyright. This applies particularly in the areas of originality, accountability, and copyright protection. Further, this paper critically evaluates the efficiency of the existing legal frameworks in solving the specific problems raised by AI-generated content by comparing the best practices of different countries and the legal situation in the world. It underscores the need for the development of flexible legal frames, which combine the goals of innovation with safeguarding the rights of the creators. This paper offers a thorough analysis of the opportunities and problems that AI-generated content presents for copyright law, especially in the context of India. It also advocates for the creation of flexible legal frameworks to help deal with the complexities of AI and intellectual property in the digital age.*

---

<sup>1</sup> Student of B.A. LL.B. (Hons.) at Vivekananda Institute of Professional Studies, GGSIP University, New Delhi  
Email: [khanashhadsajid@gmail.com](mailto:khanashhadsajid@gmail.com)

**KEYWORDS:** Artificial Intelligence, Copyright, Ownership, Authorship, Generative – AI.



**For Citation:**

---

Ashhad Sajid Khan, ‘Copyright in the Age Of Artificial Intelligence: Addressing Authorship, Ownership, and Legal Frameworks’ (2024) Special Issue JSS Journal for Legal Studies and Research 32-46  
<<https://www.jsslawcollege.in/jsslc-online-journal/>>.

---

## INTRODUCTION

The rise of artificial intelligence (AI) has transformed numerous areas of human work, including creativity and invention. As AI systems improve, they are increasingly being used to make creative works in a variety of fields, including music composition and visual art. However, this technical breakthrough has brought to attention the complicated legal and ethical issues, particularly with respect to the intersection of AI and copyright laws. Unlike traditional creative works created by humans, AI-generated content blurs the lines between authorship and ownership, presenting important considerations regarding who should be acknowledged as the creator and who owns the rights to these creations. Furthermore, the changing environment of AI technology poses novel issues in terms of legal frameworks and regulatory processes dealing with intellectual property rights.

This paper examines the numerous challenges involving AI and copyright law, with a particular emphasis on the Indian legal situation. By delving into the complexities of authorship, ownership, and legal frameworks, it hopes to provide a thorough grasp of the challenges and opportunities presented by AI-generated content. This paper aims to shed insight on the changing dynamics of AI and copyright law in the digital era by critically analyzing key case studies, legislative developments, and scholarly discourse.

The exploration begins with explaining the notion of Artificial Intelligence and its different applications in creative activities. It then dives into the fundamental concepts of copyright law, emphasizing its role in safeguarding intellectual property rights and encouraging creativity. From



there, the study delves into the complexities of determining authorship and ownership in AI-generated works, citing relevant case law and legislative requirements. Furthermore, the paper addresses the concerns that AI-generated content poses to existing copyright regimes, such as originality, responsibility, and term of protection. Drawing on worldwide best practices and comparative legal analysis, we evaluate the effectiveness of present legal frameworks in addressing the particular issues provided by AI-generated content.

It emphasizes the importance of developing flexible legal frameworks that find a balance between fostering innovation and protecting creators' rights, whether human or computer. By participating in serious debate and collaboration among policymakers, legal experts, and business stakeholders, we can negotiate the complicated terrain of AI and copyright law, assuring equitable treatment and maintaining an environment conducive to digital creativity and innovation.

### **ARTIFICIAL INTELLIGENCE**

There is, as such, no legal definition of "Artificial Intelligence". "Artificial intelligence (AI) is a discipline of computer science that is aimed at developing machines and systems that can carry out tasks considered to require human intelligence, with limited or no human intervention". Artificial Intelligence (AI) is a branch of computer science focused on developing systems and machines that can perform tasks typically requiring human intelligence. This broad field includes activities such as recognizing speech, understanding natural language, making decisions, and solving complex problems. AI systems are designed to replicate cognitive functions like learning, reasoning, and problem-solving with minimal or no human intervention. Although there is no universally accepted legal definition of AI, the field aims to create technology that mimics or simulates human intelligence. This involves various subfields, including machine learning where systems improve performance over time through data exposure without specific programming for each task; natural language processing (NLP) which allows machines to understand and generate human language; computer vision which enables machines to interpret and understand visual information; robotics which involves creating robots capable of performing physical tasks autonomously; expert systems which provide solutions or advice in specific domains by emulating human expertise; and cognitive computing which simulates human thought processes using advanced algorithms and data analytics.

<sup>1</sup> “Artificial Intelligence” may be stated as the “ability of machines to perform certain tasks that people would say it required intelligence”.<sup>2</sup> “This term was coined in the year 1956 by John McCarthy at Dartmouth College”.<sup>3</sup> Artificial Intelligence (AI) refers to the “capacity of machines to engage in cognitive functions such as thinking, perceiving, learning, problem-solving, and decision-making”.

According to Russ Pearlman, “the primary objectives of AI include reasoning, knowledge acquisition, planning, learning, natural language processing (including language comprehension and generation), perception, and the ability to interact with and manipulate objects”.<sup>4</sup> WIPO differentiate three distinct kinds of AI systems: “expert (or knowledge-base) systems”, “perception systems”, and “natural language systems”.

The basis of AI is “artificial neural networks”, which are systems inspired by the human brain and designed to mimic its learning processes.<sup>5</sup> These networks have self-learning capabilities, which allow them to improve their performance as they encounter more data. AI enables machines to perform tasks that would normally require human intelligence, with minimal human intervention. AI has various branches, including machine learning, robotics, language processing, and deep learning. AI includes subsets such as “machine learning” and “deep learning”. In machine learning, computer programmes use algorithms to learn from input data and make decisions autonomously or with guidance. Essentially, machine learning algorithms use provided inputs to generate novel outcomes through independent decisions.

There are two kinds of creative works that can be created with the help of AI - AI-generated works, also known as “generated autonomously by AI”, these works are created entirely by AI, with no human intervention. In this category, AI can adapt its behavior in response to unexpected information or events, potentially resulting in outcomes that were not explicitly intended or predicted and AI-assisted works, it requires significant human involvement. While AI

---

<sup>1</sup> WIPO Secretariat, Revised Issues Paper on Intellectual Property Policy and Artificial Intelligence, WIPO/IP/AI/2/GE/20/1 REV dated May 21, 2020

<sup>2</sup> Philip C. Jackson, Introduction to Artificial Intelligence 1 (Dover Publications, Inc., 1985)

<sup>3</sup> Fredy Sánchez Merino, “Artificial Intelligence and a New Cornerstone for Authorship”, WIPO-WTO Colloquium Papers, 2018, p. 28.

<sup>4</sup> Russ Pearlman, “Recognizing Artificial Intelligence (AI) as Authors and Inventors under U.S. Intellectual Property Law”, 24 (2) Richmond Journal of Law & Technology 4 (2018)

<sup>5</sup> Corrs Chambers Westgarth, “Artificial intelligence and copyright: ownership issues in the digital age”, Lexology’s Website, September 21, 2020, available at: <https://www.lexology.com/library/detail.aspx?g=849627a6-c428-4e45-a386-c6e49d98b446>, (last visited on February 20, 2024.)

contributes to the creative process, humans have significant influence or control over the end result.<sup>1</sup>

## **COPYRIGHT**

Copyright, also known as author's right, is the legal framework that provides creators with exclusive rights to their literary and artistic works. This includes a diverse range of works, such as books, music, paintings, sculpture, films, computer programmes, databases, advertisements, maps, and technical drawings. "Copyright allows creators to control how their works are used, reproduced, distributed, and adapted, protecting their intellectual property and ensuring they are recognized and compensated for their work".<sup>2</sup> It generally protects the one's literary works which may include novel, poetry, lyrics, etc., along with that one's musical works which may include musical compositions, along with that one's artistic works which may include paintings, sculpture, engraving, work of architecture, etc., along with that dramatic works which may include plays, cinematographic works, sound recordings, etc. Copyright protects the person's original work for his entire lifetime in addition to more 60 years after his/her death, after that the work falls into the public domain. However, "In the case of cinematograph films, sound recordings, photographs, posthumous publications, anonymous and pseudonymous publications, works of government and works of international organizations, the 60-year period is counted from the date of publication".<sup>3</sup> There is no copyright in an idea.

Broadly, "there are two types of rights which are defined under the copyright – Firstly, Economic Rights, which allows the rights owner to derive the financial reward from the use of their works by others; and, Secondly, Moral Rights, which protects the non-economic interests of the author".<sup>4</sup>

Copyright plays an essential role in protecting the rights of authors and creators, ensuring that their creative efforts are recognized and rewarded. Copyright encourages and fosters creativity by giving creators exclusive rights to their works, which is necessary for progress and development in any society. Creativity is the foundation of progress, and no civilized society can afford to ignore the importance of nurturing it. The economic and social growth of a community

---

<sup>1</sup>*Supra* note 1

<sup>2</sup> WIPO <https://www.wipo.int/copyright/en/> (Last visited on February 20, 2024)

<sup>3</sup> A HAND BOOK OF COPYRIGHT LAW, Government of India <https://copyright.gov.in/documents/handbook.html#:~:text=What%20is%20the%20scope%20of,expressions%20and%20not%20the%20ideas.> (Last visited on February 20, 2024)

<sup>4</sup>*Supra* Note 7

depends heavily on fostering creativity across various fields. Copyright provides protection for the efforts of writers, artists, designers, musicians, dramatists, architects, and producers of creative works such as sound recordings, films, and computer software, creating an environment conducive to creativity. This protection encourages creators to produce more work while also inspiring others to embark on their own creative journeys. Finally, copyright serves as a catalyst for innovation and artistic expression, thereby contributing to society's overall cultural richness and prosperity.<sup>1</sup>

According to the Berne Convention, most countries automatically grant copyright protection upon the creation of a work, with no need for registration or other formalities. However, many countries provide voluntary registration systems for workers. “These registration systems can help resolve disputes over ownership or creation of works. They also facilitate financial transactions, sales, and the assignment or transfer of rights associated with copyrighted works”.<sup>2</sup>

### **ARTIFICIAL INTELLIGENCE AND COPYRIGHT**

Since 1970s, computers programs have been used extensively in the generation of copyrighted works. The copyright ownership was not hampered in the computer-generated works. It was because the computer programs were considered mere tools to support the activities which were the creative one and also for the production of the work there was the need of the human intervention. Now, the things have changed drastically, these computers programmes cannot be considered merely as a tool because it now has the potential of generating the works all alone by implying their own decisions.

Artificial intelligence is already being used to generate creative works in a variety of fields, including music, journalism, and gaming. However, a potential issue arises regarding the copyright status of these AI-generated works. Because they are not human-authored, they may be ineligible for copyright protection. This means that such works could be freely used and reused by anyone, which could have a significant impact on companies investing in AI generated content. Consider this scenario: a company invests millions in a system that generates music for video games. If this music is not protected by copyright law, it may be used without payment by anyone in the world. This situation poses a serious threat to the revenue streams of companies

---

<sup>1</sup>*Supra* Note 8

<sup>2</sup>*Supra* Note 7

that invest in AI-generated content. The uncertainty surrounding the copyright status of AI-generated works may deter investment in automated systems. Developers may be hesitant to invest in such systems if they are unsure whether the creations produced by machine learning qualify for copyright protection. This uncertainty may discourage innovation and investment in AI technologies. Despite the copyright concerns, there are potential benefits to using artificial intelligence in a variety of industries. AI can simplify and automate time-consuming tasks, resulting in cost savings in personnel expenses. Nonetheless, the full impact of the copyright implications on the creative economy is unclear and requires further examination.<sup>1</sup>

Copyright protection provides a significant incentive for authors to create and share their creative works by acknowledging their skills, labour, and judgement. However, the question arises about AI's status as an author and whether AI-generated works should be protected under copyright law. If AI is recognized as an author, and AI-generated works are granted copyright protection, it would imply that "human creativity" and "machine creativity" are valued equally. In contrast, if AI-generated works do not receive copyright protection, it implies a preference for human creativity over machine creativity. The difference could have enormous consequences for the future of creativity. Elevating machine creativity to the same level as human creativity may reduce the value of human creativity over time. In contrast, failing to recognize AI-generated works under copyright law could hinder innovation in AI technologies and discourage investment in automated systems. Balancing the protection of human and machine-generated creative works is essential for fostering a growing creative ecosystem. Striking this balance requires thoughtful consideration of the consequences for both creators and society as a whole.

The AI has a lot of potential and it can create an enormous amount of work within a very short span of time. AI-generated works may qualify for copyright protection in many jurisdictions due to their originality, which can be attributed to the AI's programming and parameters. However, because no human author is involved in AI-generated works, the issue of authorship becomes complicated. In cases where human intervention is required to create works with the assistance of AI, the person who initiates the process may claim authorship. However, this does not apply

---

<sup>1</sup>WIPO MAGAZINE "Artificial Intelligence and copyright" By Andres Guadamuz, Senior Lecturer in Intellectual Property Law, University of Sussex, United Kingdom (October 2017)  
[https://www.wipo.int/wipo\\_magazine/en/2017/05/article\\_0003.html](https://www.wipo.int/wipo_magazine/en/2017/05/article_0003.html) (Last visited on February 20, 2024)

when the work is created entirely by AI with no human input. This dilemma has prompted various countries to consider different approaches to the issue of authorship:

- Some advocate for authorship recognition for AI, arguing that the copyright system should be modified to accommodate AI-generated works.
- Others argue that AI-generated works should not be attributed and should instead enter the public domain, where they can be freely used by anyone.
- Another option is to implement sui generis laws designed specifically to protect AI-created works, rather than relying solely on traditional copyright laws.

These different viewpoints emphasize the need for comprehensive legal frameworks that can effectively address the complexities arising from AI-generated creative works, ensuring fair treatment for creators and promoting innovation in the digital age.

Many nations' copyright laws also grant authors moral rights, which are not necessary under the TRIPs Agreement. In Article 9 of Trade Related Aspects of Intellectual Property Rights, it says that "*Members shall comply with Articles 1 through 21 of the Berne Convention (1971) and the Appendix thereto. However, Members shall not have rights or obligations under this Agreement in respect of the rights conferred under Article 6bis of that Convention or of the rights derived there from*".<sup>1</sup> There are two moral rights – (i) rights of paternity; and (ii) right of integrity are ordinarily provided to the author.

### **AUTHORSHIP IN AI-GENERATED WORKS**

Before addressing authorship and ownership concerns, copyright protection for AI-generated works must be determined. The level of originality needed by copyright law is still unclear, as showed by China's Copyright Law. While some academics favour copyright protection, others doubt the legitimacy of AI-generated works. International treaties such as the World Intellectual Property Organization Copyright Treaty (WCT) and the Berne Convention lack precise guidelines for establishing originality. AI creations must be unique in order to be protected under copyright law. Notable examples include the "*Dreamwriter case*" in China, where the court determined that the AI-generated article's look satisfied the criteria of traditional written works, proving its uniqueness. The Court established that the piece was mostly created by the Plaintiff's internal staff, with "*Dreamwriter*" acting only as a writing tool.

---

<sup>1</sup>Agreement on Trade-Related Aspects of Intellectual Property Rights, 1995, Art. 9, 1995 (WTO)

The question is whether AI should be granted the same copyright rights as human authors. European civil law nations such as Germany and France share similar views, emphasizing the author's personality as a critical component of copyright authorship. Even with these fundamental principles in place, existing frameworks are under threat from rapid technological advancement.

In India, the Copyright Office inadvertently recognized an AI system called ROBUST ARTIFICIAL INTELLIGENT GRAPHICS AND ART VISUALIZER (RAGHAV) as a co-author of an artistic work, which is a painting 'SURYAST' and approved the application for copyright protection. Initially, when Ankit Sahni, the creator of the painting app AI system RAGHAV, submitted the application with the AI system as the sole author, it was rejected by the copyright office. The copyright office then issued a notice to withdraw the registration, admitting its error and asking Mr. Sahni, the human co-author, to consider the legal status of the AI system RAGHAV. Despite the application status still showing as 'registered' on the copyright office website, the court has yet to make a decision on this case. Aside from joint authorship, AI is increasingly acknowledged as an independent creator in a variety of legal circumstances. Organizations or non-legal-person entities, for example, AI are acknowledged as writers in China provided, they communicate intent and claim ownership of the work.

According to Section 17<sup>1</sup> of the Indian Copyright Act, the work's 'Author' is the original copyright holder. An author of a work is often someone who converts a concept into a physical expressive work or form<sup>2</sup>. Furthermore, under Indian law, only a natural person may be regarded as the creator of a copyrighted work. The challenge or dilemma that the development of AI, particularly 'Generative AI', has brought to Copyright Law is identifying authorship or ownership of AI-created works.

The dilemma that has arisen as a result of the advancement of AI technology is who should own the copyright in an AI-created or generated work: the AI itself?, Or the user?, or the manufacturer? Alternatively, the developer of the AI system or the creators of the original work to which the AI refers.

According to Section 2 (d)(vi) of the Indian Copyright law, the author of computer-generated 'musical, literary, artistic, and dramatic work' is 'the person who causes the work to be made'

---

<sup>1</sup> The Copyright Act, 1957, S. 17, No. 14, Acts of Parliament, 1957 (India)

<sup>2</sup> The Copyright Act, 1957, S. 2(d)(vi), No. 14, Acts of Parliament, 1957 (India)

and so owns the copyrights<sup>1</sup>. However, the problem continues in the case of AI-generated work, since generative AI may develop an output or work with little user input using machine learning or deep learning. As a result, the development of AI has presented several challenges to the Copyright Law, the answers to which are uncertain.

The **DABUS**<sup>2</sup> (Device for Autonomous Bootstrapping of Unified Sentience) case was an iconic moment in intellectual property law. Stephen Thaler, the AI system's designer, filed petitions in many jurisdictions, including the United States, United Kingdom, New Zealand, and Australia, asserting the AI's intellectual property rights as the inventor of its creative work. However, these applications were denied on the grounds that authorship rights may only be awarded to natural individuals under current legislation. Despite these obstacles, several South African countries and the Intellectual Property Commission (CIPC) decided to offer intellectual property rights for AI-generated works under Stephen's Patent Cooperation Treaty.

### **INJUNCTION AGAINST USE OF AI BY DELHI HIGH COURT**

The Delhi High Court recently issued an order in "*Anil Kapoor v. Simply Life India*<sup>3</sup>" that limits the use of Anil Kapoor's voice on social media channels, e-commerce websites, and advertisements. The plaintiff sought protection from the unauthorized use of his personality rights from the court. The imposters imitated his voice with artificial intelligence, deep fakes, GIFs, and other techniques. According to the court, Anil Kapoor has claimed personality rights in his voice, image, and related works, as well as common law rights such as the right to be free of impersonation, dilution, and unfair competition. The judge further stated, "Using his names and photographs on posters. Selling suits under the name Anil Kapoor, providing forged signatures and photographs. Using artificial intelligence to create morphed images and videos of Anil Kapoor that is extremely derogatory not only to the plaintiff but also to actresses whose videos are being used to morph the plaintiff's videos". The court also stated that the right to endorse is one of a celebrity's primary sources of income. The use of AI can be harmful. Whenever technology progresses, it is possible that a renowned personality's face may be utilized in some illicit filthy scenarios, and the celebrity will be blackmailed for extortion money, or the offender will release obscene photos/videos to social media. An artist's artisanship evolves

---

<sup>1</sup>*Supra* Note 15

<sup>2</sup> Thaler v. Comptroller General of Patents, Designs and Trademarks ECLI: EP: BA:2021: J000820.20211221

<sup>3</sup> Anil Kapoor v. Simply Life India CS (COMM) 652/2023



with time, but artificial intelligence challenges its fundamental base. Years of hard labour can be undone with a single click. The rise of AI may make it tough for young and emerging artists to make an impression in the industry as a whole.

### **THE PARLIAMENTARY STANDING COMMITTEE'S STAND<sup>1</sup>**

The Parliamentary Standing Committee's 161<sup>st</sup> report in July 2021 is a significant step towards addressing the challenges that artificial intelligence (AI) poses to intellectual property rights (IPR). After recognizing AI's unique nature and potential impact on innovation and creativity, the committee proposed the creation of a separate legal framework dedicated to addressing the rights and protections associated with AI inventions and solutions. This recommendation reflects policymakers' growing recognition of the need for adaptive legal frameworks to keep up with technological advancements.

Furthermore, the committee's proposal to amend existing legislation, such as the Patents Act of 1970 and the Copyright Act of 1957, shows a proactive approach to incorporating AI-related innovations into the legal framework governing intellectual property. By proposing these amendments, the committee hopes to ensure that AI creators and innovators are adequately protected and recognized for their contributions, fostering a favorable environment for AI research and development in India. The announcement by State Minister Rajeev Chandrasekhar emphasizes the government's commitment to addressing AI's challenges and opportunities. By expressing the intention to regulate AI to protect "digital citizens", the government acknowledges the importance of balancing innovation with the protection of individual rights and interests in the digital age.

The collaborative nature of AI-generated content, as well as its reliance on algorithms and pre-existing data, presents complex legal challenges in terms of copyright. The Indian Copyright Act protects original literary, dramatic, musical, and artistic works, but the use of AI complicates the determination of authorship and originality. While amendments to the Copyright Act in 1994 sought to address computer-generated works, the requirement for human authorship limits copyright protection for AI-generated content, according to Section 2(d) of the act.

While the recommendations and initiatives outlined by the Parliamentary Standing Committee and the government show a proactive approach to addressing the challenges posed by AI to

---

<sup>1</sup> Parliamentary Standing Committee's 161<sup>st</sup> Report [https://files.lbr.cloud/public/2021-07/161\\_2021\\_7\\_15.pdf?VersionId=S01fCQEC5DzDqKNyMsGxal6YXmJbUwM](https://files.lbr.cloud/public/2021-07/161_2021_7_15.pdf?VersionId=S01fCQEC5DzDqKNyMsGxal6YXmJbUwM)

intellectual property rights, the issue of copyrightability of AI-generated content is still being debated and legally scrutinized. Finding a balance between fostering innovation and providing adequate protection for creators and innovators in the AI era will necessitate careful consideration and ongoing dialogue among policymakers, legal experts, and industry stakeholders.

## **CURRENT LEGAL FRAMEWORKS FOR AI AND COPYRIGHT PROTECTION IN INDIA**

India currently lacks comprehensive legislation aimed specifically at artificial intelligence (AI), with no codified laws, statutory rules, or official guidelines dedicated solely to regulating AI. Instead, AI-related regulations are embedded within the framework of the Information Technology Act of 2000. Sections 43A<sup>1</sup> and 72A<sup>2</sup> of this act are especially important because they focus on protecting personal data and addressing unauthorized disclosure.

To address the ethical and societal implications of AI, the NITI Aayog has created a set of seven principles for responsible AI. These principles include reliability, safety, equality, inclusivity, privacy, transparency, accountability, and the preservation of positive human values. The goal of adhering to these principles is to protect the public interest while also encouraging innovation and building trust in AI technologies<sup>3</sup>.

Furthermore, the Ministry of Electronics and Information Technology (MEITY) has taken proactive steps, formed committees and announced plans to introduce, implement, and integrate AI into various sectors. These initiatives demonstrate India's commitment to embracing AI and realizing its potential for societal and economic advancement.

Sections 43A<sup>4</sup> and 72A<sup>5</sup> of the Information Technology Act 2000, like the General Data Protection Regulation (GDPR), provide avenues for recourse in cases of unauthorized disclosure of personal information, giving individuals some level of protection.

Looking ahead, India is on track to become a global leader in AI technology, thanks to government initiatives that are paving the way for the development and adoption of cutting-edge AI solutions. However, as AI evolves, there will be an ongoing need for strong regulatory

---

<sup>1</sup>The Information Technology Act, 2000, S.43A, No. 21, Acts of Parliament, 2000 (India)

<sup>2</sup>The Information Technology Act, 2000, S.72A, No. 21, Acts of Parliament, 2000 (India)

<sup>3</sup>INDIAAI, Ministry of Electronics & Information Technology <https://indiaai.gov.in/research-reports/responsible-ai-part-1-principles-for-responsible-ai>

<sup>4</sup>*Supra* Note 20

<sup>5</sup>*Supra* Note 21

frameworks to address emerging challenges and ensure that AI technologies are responsibly developed and deployed.

While “Section 9 (3) of UK's Copyright, Design, Patents Act (CDPA) 1988<sup>1</sup>, says, in case of a literary, dramatic, musical, or artistic work that is computer generated, the author shall be taken to be the person by whom the arrangements necessary for the creation of the work are undertaken. Section 178<sup>2</sup> of CDPA defines computer-generated works as 'generated by computers in circumstances such that there is no human author of the work”.

### **CHALLENGES IN GIVING AUTHORSHIP AND OWNERSHIP TO AI**

The challenges of determining who gets credit and who owns AI-created things revolve around navigating new legal rules and examples. In the United States, for example, the Copyright Office states that only humans can be considered creators of AI-created content, making it difficult to determine whether AI creations can even be copyrighted. It can be difficult to tell whether something was entirely created by AI or if humans played a significant role in it. In Australia, they are dealing with issues like ensuring AI is trained with the correct data and determining who should receive credit if humans play a significant role in creating something with AI. Because copyright laws are primarily concerned with people creating things, it is difficult to incorporate AI into them. To deal with these tricky situations, experts recommend being clear about where the data comes from and ensuring AI is trained with the appropriate information. This can help determine who deserves credit and who owns what in terms of AI-generated content.

The rise of AI-generated works has presented numerous challenges to copyright law. Let's go over a few of them briefly:

- a) Compiling current content to create new content is a significant challenge for AI. AI-created work frequently makes use of pre-existing data or information, either from public sources or databases. There is concern about potential copyright violations because AI may not create entirely original works, but rather modifies or updates existing data.

In the United States, one notable case is “*Authors Guild, Inc. v Google, Inc.*”<sup>3</sup> Google copied entire books to create a searchable database containing excerpts. The court ruled that this was transformative use and thus fair use, however, the degree of changes and

---

<sup>1</sup>Copyright, Designs and Patents Act, 1988, S. 9(3), Act of Parliament, 1988 (United Kingdom)

<sup>2</sup> Copyright, Designs and Patents Act, 1988, S.178, Act of Parliament, 1988 (United Kingdom)

<sup>3</sup> Authors Guild, Inc. v Google, Inc 3d 202 (2nd Cir. 2015)

dependence on existing content in AI-generated works may vary. This calls into question how copyright law should be applied to AI-generated content.

- b) The concept of originality is essential in Indian copyright law for a work to be protected. Although the Copyright Act does not define “original work”, courts typically consider factors such as the relationship between idea and expression, the amount of effort put in, the degree of originality, and the use of judgment and skill.

In the USA, the “*Feist Publications, Inc. v Rural Telephone Service Co.*<sup>1</sup>” case clarified that simply investing labor and capital is insufficient for copyright protection, emphasizing the importance of originality in works. However, the question of identifying the originality of AI-generated works continues to be debated.

- c) As AI assumes ownership and authorship of creative works, determining culpability for violating copyright becomes more challenging. The landmark case of “*Bridgeport Music, Inc. v Dimension Films*<sup>2</sup>” in the USA shed light on the challenge of illegal copying in music, sparking debates about the potential for AI-generated content to infringe on existing copyrighted material. The absence of recognized law for AI complicates the process of holding it accountable for its actions and any resulting violations, posing a significant challenge in the field of copyright law.

- d) Challenges for AI as a Copyright Holder: Several aspects of Indian intellectual property law make identifying AI as a creator difficult. Establishing the necessary employer-employee relationship for copyright transfer becomes more difficult when dealing with AI-generated works. The precedent set by “*Viacom International, Inc. v. YouTube, Inc.*<sup>3</sup>” in the USA highlights the complexities of user-generated content and copyright liability. Because of AI’s lack of emotional capacity, moral rights such as paternity and integrity lose significance. Identifying AI royalties, ensuring ownership for AI-generated content, and addressing potentially defamatory or immoral AI-generated works are all complicated difficulties.

- e) Granting copyright protection to AI-generated work presents a substantial problem in terms of its lifetime. Traditional copyright terms, which are often based on the author’s

---

<sup>1</sup> *Feist Publications, Inc. v Rural Telephone Service Co.* 499 U.S. 340 (1991)

<sup>2</sup> *Bridgeport Music, Inc. v Dimension Films* 410 F.3d 792

<sup>3</sup> *Viacom International, Inc. v. YouTube, Inc.* 676 F. 3d 19 (2012)

lifespan plus additional 60 years, present a challenge because AI lacks a biological lifespan. As a result, defining the proper period of copyright protection becomes difficult, with possible conflicts over the duration.

The absence of legal personhood in computer programmes complicates determining copyright ownership for computer-generated works. This leaves four options for ownership:

1. the computer programmer,
2. the computer user,
3. both as co-authors, or
4. no one

The argument for programmer ownership is based on a broader interpretation of the “works made for hire” concept, which traditionally provides employers copyright ownership of works created by workers within the scope of their job. However, this would necessitate expanding the definition of “employment” to encompass a programmer’s relationship with their computer.

Alternatively, the utilitarian view of copyright law supports the case for computer user ownership, intending to encourage the development of expressive works for the public good. Granting copyright to users indirectly incentivizes the entity best positioned to introduce AI-generated works to the public.

The joint authorship argument recognizes the collaborative effort of the programmer and the user, emphasizing their shared participation in creating AI-generated content.

In contrast, the argument for no copyright ownership accords with utilitarian theory, implying that owner-less works can be freely shared with the public, fostering universal access and dissemination.

Resolving the ownership uncertainty around AI-generated works is vital for those who are prospective and current owners of intellectual works used as input data, especially in terms of infringement issues emerging from the use of copyrighted material to train AI programmes.

## **CONCLUSION**

The interaction of artificial intelligence (AI) and copyright law involves numerous issues that must be carefully considered and adapted to existing legal frameworks. The ever-changing nature of AI technology, together with its growing role in creative processes, poses fundamental

problems regarding authorship, ownership, and intellectual property protection. The DABUS case and recent developments in India highlight the importance of clarifying the copyright position of AI-generated works, as well as recognizing AI as an artist or creator. Furthermore, the emergence of AI-generated content raises concerns about assessing originality, assigning liability for copyright infringement, and defining acceptable copyright terms. As legislators, legal experts, and the industry stakeholders with these issues, it is critical to strike a balance between encouraging innovation and creation while also assuring equitable treatment and protection for creators, whether human or machine. Adaptive legal frameworks, proactive actions, and ongoing dialogue are required to manage the complexity of AI and copyright law, establishing a climate conducive to innovation and creative expression in the digital era.



---

## **The Intersection of Artificial Intelligence and Intellectual Property Law: A Study of Ownership of AI Generated Content in India**

*Amritha M<sup>1</sup>*

*Gloria Pearl Issac<sup>2</sup>*

### **ABSTARCT**

*In the 21<sup>st</sup> century, with the growth of technology the use of artificial intelligence has a wide reach. Artificial Intelligence (AI) is significantly transforming the field of Intellectual Property (IP). The object of this paper is to analyse the relation between artificial intelligence and intellectual property rights. The paper analyse the legal and ethical consequence of AI for IP ownership, authorship and copyright infringement. The paper analyses the various laws, rules and regulations along with giving a critical analysis of the effectiveness of these existing legal frameworks related to AI and Intellectual Property Rights.it also sheds light to provide suggestions transcending IPR, and seeks to address question concerning criminal liability for the content created by such technologies. This paper is relevant as it provides recommendations in relation to artificial intelligence and intellectual property resulting in numerous benefits to various stakeholders.*

**KEYWORDS:** Artificial Intelligence (AI), Intellectual Property (IP), Authorship, Ownership, Copyright Law, Rights of AI System.



---

<sup>1</sup>*Student of BCOMLLB, St Joseph College of Law,Field Marshal Cariappa Rd, Shanthala Nagar, Ashok Nagar, Bengaluru, Karnataka 560025*

*Email: [amrithamani115@gmail.com](mailto:amrithamani115@gmail.com)*

<sup>2</sup>*Student of BCOMLLB, St Joseph College of Law,Field Marshal Cariappa Rd, Shanthala Nagar, Ashok Nagar, Bengaluru, Karnataka 560025*

*Email: [gloriapearl753@gmail.com](mailto:gloriapearl753@gmail.com)*

*For Citation:*

---

Amritha M & Gloria Pearl Issac, 'The Intersection of Artificial Intelligence and Intellectual Property Law: A Study of Ownership of AI Generated Content in India' (2024) Special Issue JSS Journal for Legal Studies and Research 47-57 <<https://www.jsslawcollege.in/jssc-online-journal/>>.

---

## INTRODUCTION

The capability of the computers to replicate intelligent human behavior has intrigued the people from all walks of life. With the growth of data science and technologies, artificial intelligence (AI) has appeared as a powerful tool that has changed the way intellectual property (IP) is considered, revolutionizing and facilitating new challenge and opportunities. Many people have adapted the use of AI, systematizing the activities curtailing human involvement to ensure effectiveness, efficiency and eliminating errors. The implementation of AI in various sectors like healthcare, entertainment, finance, transportation, education, legal service has changed lives.

The World Intellectual Property Organization (WIPO), defines IP as “creation of the mind everything ranging from the workers of art to inventions, computer programs, trademarks and other commercial signs IP protection rights confer the exclusive legal ownership of creative works to the owners.”<sup>1</sup>

Artificial Intelligence was first discovered by John McCarthy. McCarthy describes it as the “science and engineering of the making intelligent machine” Intellectual property with AI has brought forth an evolving trend. The traditional belief of protecting the IPR has been challenged by the new emergence of digital technologies and increases in the intangible assets, it has become a need to re-considered the existing IP framework regarding AI.<sup>2</sup> AI has a significant impact on IPR. AI has increased the legal and ethical issues regarding patent, trademark, copyright, trade secret and data protection. The main objective of this paper is to explore the intricacies of AI created content on Intellectual Property Rights as the intersection of AI and IP is rapidly growing and it needs careful consideration and study.

---

<sup>1</sup>Olajide, Adekunle, The Legal Implication Of Generative AI on Intellectual Property Rights and Protection , ResearchGate. May 2024

<sup>2</sup>Free Law, [Impact of AI on Intellectual Property Practices - Legal Articles - Free Law](#)



## **METHODOLOGY (DOCTRINAL)**

This research paper is doctrinal study. The researcher has chosen doctrinal study because this type of research helps to acquire and develop deeper understanding of the Indian legal system and helps to come up with solutions for better legal governance in terms of artificial intelligence and intellectual property rights.

## **RESEARCH QUESTIONS**

1. Who holds ownership and authority over AI generated content?
2. Can AI generated creations be copyrighted and patented?
3. What the laws governing generative AI across the world?

## **HYPOTHESIS**

The hypothesis of the research paper is that, the ownership and authority over AI generated content primarily falls on the developers of AI rather than the AI or the user.

## **OBJECTIVE**

The primary objective of this research paper is to explore the intersection of AI and IP laws. It also analyses the relation of AI, copyright and patent, focusing on the current legal frameworks to accommodate AI innovation and the challenges that arise.

## **SCOPE**

The paper aims to analyze the relation between AI and IP along with an analysis on the applicability and limitation of the current IP law to AI technologies, including the patentability of AI generated inventions, issues regarding ownership of the content created by AI. The study explores the applicability of copyright protection on AI generated creations with ethical and legal consideration. The paper focuses on analyzing the rules and regulations governing AI and IPR. The paper may also suggest the need for proper regulatory as well as institutional frameworks.

## **RELEVANCE AND SIGNIFICANCE**

The purpose of this research paper is to provide an analysis of the impact of artificial intelligence on intellectual property rights, including legal frameworks that are needed to address the challenges and opportunities due the rapid growth of technologies.

The paper discovers the ways in which AI is currently handled in the legal arena .The paper analyses the impact of AI on the legal system and society and provides direction for the framework needed.

## **SOURCES OF DATA**

The primary sources of data are Intellectual Property Rights, Copyright Laws, case laws, books and International Conventions. The secondary sources of data are research papers and research articles.

## **LITERATURE REVIEW**

### **Law and Artificial Intelligence**

This is book where the author presents all aspects concerning the intersection of law and Artificial Intelligence (AI).<sup>1</sup> The book is divided into five chapters. It explains the meaning of AI and Intellectual property rights and their classification. This book mainly focuses on legal technologies, such as the use of AI in legal terms, law making and legal scholarship. It provides for information as to how AI is regulated in different areas .The book also provides information about applying AI in legal practices. But this book lacks proper analysis on the reason for the failure of giving authorship and ownership for AI generated creations. Hence, it is essential to explore and examine the topic.

### **The Role of Intellectual property in the Intellectual explosion<sup>2</sup>**

In this book the author deals with the role of IP in the intelligence explosion. This book is divided into 4 chapter. The book explains the meaning of AI along with concept of intellectual property approach towards AI. It provides insight on the potential legal problems of Intellectual property that arise in the context of AI, highlighting the importance that AI could serve in speeding up the process and to extent innovations.

## **2. DISCUSSION AND FINDINGS**

### **2.1 Ownership and Authority of AI generated content**

The rapid development of AI has changed the way IP laws are applied and interpreted. The most important legal challenges posed by Artificial Intelligence on IP is the issue of ownership and authorship of AI-generated content<sup>3</sup>. Generative AI's are able to create original works based on the requirements provided by the users, but the question arises as to 'Who owns that work?', the

---

<sup>1</sup>Vol 35 Bart Custers Eduard Fosch, Law and Artificial Intelligence, T.M.C Asser press, May 2022

<sup>2</sup>Andrea Moriggi, The Role of intellectual property in the intellectual explosion, 22 January 2018

<sup>3</sup> Free Law, [Impact of AI on Intellectual Property Practices - Legal Articles - Free Law](#)

one who gives directions to the AI system to create the work, the developer of the AI system, or the AI system itself.<sup>1</sup> According to the traditional intellectual property law, the creator or author of the work (Human) is considered the sole owner of the work but this is not the case with the AI-generated work.

In the traditional IP laws, the ownership is assigned to human creators. The rise in AI generated contents has posed a question as to whether the AI can claim copyright over the content it generates. AI content generating software likes UGC, Yotpo, TINT etc has gained popularity and thus there is a need to resolve these IP issues. The IP laws have been related with the protection of human ingenuity, the reward for the expression of the human creativity.

In the landmark case of *Naruto vs Slater*, a monkey named Naruto took a selfie using a camera set up by David Slater the photographer. People for the Ethical Treatment of Animals (PETA) sued the photographer on behalf the monkey to assert copyright over the picture<sup>2</sup>. The question was who owns the copyright to the photography the photographer or the monkey.

The US court held that Naruto, a non-human could not be legally considered as the author and copyright owner under the existing copyright law.

In the Chinese Feilin's case (*Kan He, Feilin v. Baidu*) held that AI cannot be considered as author but the work with human input can be protected<sup>3</sup>. The projects generated by the association of AI and human involvement the authorship can be assigned to the individual contributing creative inputs<sup>4</sup>.

A graphic novel expert Kris Kashtanova Successfully acquire copyright foe AI generated comic "Zarya of the Dawns". this comic book was labeled as "AI assisted" rather than "AI generated" because it involved human inputs in creating the storyline. The copyright protection for the ownership and authorship was render for the comic book.

These cases prove that along with the evolving nature of AI there is an increasing importance attached to human contribution in AI generated content or work to establish eligibility for copyright and ownership.

## **2.2 The relation between AI, Copyright and Patent**

### **2.2 (a) AI and Copyright**

---

<sup>1</sup> Shehu, Aisha, AI and copyright, vol 1 JOUR

<sup>2</sup> *Naruto vs Slater*, NO 16-154469 (9<sup>th</sup> Cir 2018)

<sup>3</sup> *Kan He, Feilin v. Baidu* 593-4 (2019)

<sup>4</sup> Kusha, Sugandha Passi, Artificial Intelligence Generated Content, IJNRD.ORG, 2023

Copyright in India is governed by the Copyright Act of 1957. As per section 2(d) of the copyright act, “author” is defined as ‘creator, composer, artist, photographs and producer’<sup>1</sup>. Yet the provision does not clarify whether the author could be a legal entity or an artificial person.

AI challenges this provision in several ways. The copyright law protects works that are original and product of human creativity. One of the main issues is that authorship and ownership of AI generated creations are not recognized as original. But in the copyright act the author of the work is considered as the person who created it, in the case of AI generated work it is still unclear as to who is considered as the author and the issues of ownership is too uncertain, as an AI is not a natural person<sup>2</sup>.

In the case ‘Zarya of the Dawn’, the US Copyright Office granted the copyright registration for the graphic novel but later revoked it stating that the AI generated images could not be copyrighted as they lack human authorship<sup>3</sup>.

India approved the copyright protection for the art created by the AI, recognizing RAGHAV AI painting app as the co-author of the work ‘Suryast’. The copyright office accepted application containing both AI and human co-author but does not recognize AI as an independent author<sup>4</sup>.

In Navigators Logistics Ltd vs Kashif Qureshi, the court held that human involvement in the creation process is important to grant copyright protection in India.<sup>5</sup> Under section 17 of the Copyright Act 1975, the actual owner considered is the author but the ownership can be transferred to someone else through an agreement, but this is not possible with AI generated content<sup>6</sup>. As AI advance there is an immediate need to take necessary measures to bring forth new laws while protecting the rights of the creator and technological progress<sup>7</sup>.

### **(b) AI and Patentability**

The patent of inventions is determined by the Patents Act 1970 in India. For the eligibility of patent, an invention must be novel, non-obvious and have industrial applicability. But there is no

---

<sup>1</sup> The Copyright Act of India 1957

<sup>2</sup> Syed Wajdan Rafay Bukhari, Saif Ullah Hassan, Impact of Artificial Intelligence on Copyright Law, JLSS, Volume 5, Issue 4, pp 647-656

<sup>3</sup> Re..Zarya Registration # VAu001480196

<sup>4</sup> 1 The application listed RAGHAV’s authorship as a work made for hire and RAGHAV’s “year born” as 2020

<sup>5</sup> Legal service, [Laws governing AI in India: Everything You Should Know \(legalserviceindia.com\)](https://legalserviceindia.com)

<sup>6</sup> Indian Journal of Law, [Balancing Indian Copyright Law with AI-Generated Content: The ‘Significant Human Input’ Approach \(ijlt.in\)](https://ijlt.in)

<sup>7</sup> Evita Isrretno, The Impact of Developments in Artificial Intelligence on Copyright and other Intellectual Property Laws, November 2023, Journal of Law and Sustainable Development 11(11):e1965

specific provision for AI generated inventions. Patent law differs depending on the jurisdiction<sup>1</sup>. By providing a framework that safeguards intellectual property while encouraging innovation and advancement, this legal framework seeks to strike a balance between the interests of inventors, society's access to knowledge, and technological growth<sup>2</sup>.

The Indian Patent Office has stated that the inventions generated by AI system without human intervention or involvement are not patentable. However, the inventions that involve the combination of human and AI may be patented if it fulfills some criteria for the patentability<sup>3</sup>.

The Indian Patent Office has issued rules for examination of AI generated inventions<sup>4</sup>. The guidelines state that the use of AI and machine learning algorithms in an invention may be considered to contribute to the inventive step as long as they are not merely being used for automation.

In the DABUS case of 2018, DABUS (Device for the Autonomous Bootstrapping of United Sentience) an AI system created two inventions one a food container and the other light beacon, these inventions were submitted for patenting in UK, US and Europe<sup>5</sup>. The application was rejected on the ground that an AI cannot be considered as the inventor under the current patent law. But later the court allowed for the inventions to be patented.

In the United States, AI generated inventions are generally considered to be patentable, if they meet the criteria for patentability<sup>6</sup>. But this may lead to the displacement of human inventors and create forms of inequality. Similarly in Europe there is specific provision mentioned in the European Patent Convention (EPC) for the patentability of AI generated inventions. The aim in integrating AI to patent law is to improve productivity, increase accuracy, effectiveness and efficiency in the tasks related to patent. In *Shenzhen Tencent computer system co. v Shanghai*

---

<sup>1</sup> The Patent Act of India 1970

<sup>2</sup>Legal Service of India [The Impact Of Artificial Intelligence In Patent Law \(legalserviceindia.com\)](https://legalserviceindia.com)

<sup>3</sup>Aditi Chauhan, Kashmir Singh, Intellectual Property Rights and Artificial Intelligence , ResearchGate, Dec 2023, pp 655-72.

<sup>4</sup>Sanjeev Ghanghash, 'INTELLECTUAL PROPERTY RIGHTS IN THE ERA OF ARTIFICIAL INTELLIGENCE: A STUDY REFLECTING CHALLENGES IN INDIA AND INTERTIONAL PERSPECTIVE' (2022) 11 Multidisciplinary Journal of Educational Research 6.

<sup>5</sup> Thaler v Comptroller-General of Patents, Designs and Trademarks, 2021/0201

*Yingxun technology co., Ltd Case*<sup>1</sup> the Chinese court has held that AI created literary work would be eligible for copyright protection.<sup>2</sup>

### **Ethical and Legal Considerations**

The possibility of AI violating the current IP rights raises ethical and legal concerns, AI generated content can unintentionally violate copyright law. Combating AI-generated contents that violate IP laws will require innovative intellectual property enforcement strategies<sup>3</sup>. Protecting works from copyright infringement by AI requires a combination of regulations that govern AI and IP

### **Laws Governing Generative AI**

The rapid development of AI's and their ability to create works has brought forth complex challenges in the view of the laws governing AI's and their creations.<sup>4</sup> It is however, vital to note, that several countries do not permit for AI generated content to be copy written. This is mainly due to the creations being a product of human creativity, understanding, and ideas, where the AI at most plays the role of an aid to bring to life the ideas of man.

### **European Union Laws**

The European Union's legislation has passed the AI Act on 13<sup>th</sup> march 2024<sup>5</sup>. The EU has put forth the world's first comprehensive AI law, which aims to protect the fundamental rights and safety of its citizens. The law classifies the risk levels of different AI systems, which are subject to strict obligations or will be banned. The General Data Protection Regulation governs data protection and privacy of the citizens of EU, which ensures the protection of such data used in AI systems. The European commission also brought forth the Ethics Guidelines for trustworthy AI in 2019, outlining several aspects, some of which are data governance, transparency, non-

---

<sup>1</sup> Aditya Singh, AI: A Copyright Conundrum, December 2023

<sup>2</sup> Shenzhen Tencent Computer Systems Co., Ltd. and Shanghai Yingxun Technology Co., Ltd. (2019) Yue 0305 Min Chu 14010 ((2019) Yue 0305 Min Chu 14010)

<sup>3</sup>Excelon IP [The Future of AI and Intellectual Property Rights \(IPR\) - EXCELON IP - Patent | Trademark | Copyright | IP Services](#)

<sup>4</sup> Niklas Kruse, Julius Schöning, Legal conform data sets for yard tractors and robots

AI-based law compliance check on the right to one's image, Computers and Electronics in Agriculture, VOL 223, August 2024

<sup>5</sup> Novelli, Claudio, Casolari, Hacker, Generative AI in EU Law: Privacy, Intellectual Property and Cybersecurity, 12. April, 2022

discrimination, privacy, accountability etc<sup>1</sup>, although not binding these guidelines influence AI development and regulation in the EU.

In 2023 Italy had banned ChatGPT due to privacy concerns, soon after which Open AI had addressed and clarified the issues raised by the Italian Data Protection Authority (GPDP).

## Indian Laws

Although there isn't a complete legal framework on ai in India, it derives its powers from some of the existing laws. The digital personal data protection act 2023 has provisions regarding privacy; the act emphasizes the obligations of data fiduciaries and the rights and duties of data principals. The application of AI's utilizing data raises concern regarding its use beyond the authorized limit constitutes a violation of the rights of the data holder.

This overuse isn't protected under the DPDP Act by virtue of section 3(c)(ii)<sup>2</sup>. The Indian copyright act of 1957<sup>3</sup> safeguards the rights of the creators for original work. The doctrine of fair dealing is an exception that allows for the use of the copyrighted works, protected under the act under section 52<sup>4</sup>, for limited use of such protected works in order to maintain the originality and sanctity of the work as well as its owner. It is analyzed on a case-to-case basis as to what constitutes Fair dealing.<sup>5</sup>The same concept is known as the doctrine of fair use Under US copyright law. The doctrine of fair dealing is mainly analyzed on four factors: the nature of the work, purpose of use, amount of work used & Effect of use of the work on the original work.

## UK and US Laws

The UK the Law accepts computer generated works as copyrightable, vide section 178 of the CDPA act, recognizing creative works created by computers to be copyrightable<sup>6</sup>.The doctrine of fair use in US, mentioned in section 107 of the US copyright law is quite flexible with generative AI developments in regards to text and data mining<sup>7</sup>.

---

<sup>1</sup> Kikuchi Tatsuru, Impact Evolution on European Privacy Laws governing generative -AI models Evidence in Relation between Internet Censorship and Ban of ChatGPT in Italy, Research Gate 8 June 2024

<sup>2</sup> Ishnay Prakash, Dhruv, Sanjeev Purkar, Indian Journal of Law and Legal Research NAVIGATING THE REGULATORY LANDSCAPE FOR AI AND PUBLICLY AVAILABLE DATA IN INDIA, May 2024

<sup>3</sup> Indian Copyright Act, 1957

<sup>4</sup> Indian Copyright Act, 1957, Section 52

<sup>5</sup> Radhika Bhusari, *Fair Dealing Under the Copyright Law: A Critical Analysis*, 5 (1) IJLMH Page 1077 - 1089 (2022)

<sup>6</sup> Nartey, Emmanuel, Guiding Principle of Generative AI for employability and learning in UK universities, Cogent Education, Vol 11, 21 June 2024

<sup>7</sup> Ulnicane, Inga, Governance fix? Power and politics in controversies about governing generative AI, Oxford University, 2 June 2024

In several cases such as Authors Guild v. Google<sup>1</sup> etc. the courts have held it to be fair use; the US copyright office does not recognize works without human authorship created only by AI's to be copy writeable.

### **SUGGESTIONS**

- Modify rules and regulations on Intellectual Property: it is important to revise intellectual property regulations to keep up with the progress in AI technology. This involves tackling and acknowledging the challenges presented by AI generated content, copyright ownership and authorship, patent within the legal framework.
- Establish guidelines for AI generative: Develop guidelines for generative AI including principles for human oversight and contribution this can include a fusion model where AI and human co-author are acknowledged.
- Regulation and consequences for AI generated content: there must be separate rules and regulations governing generative AI. These rule and regulations must include provisions for penalties against fake copyright claim.

### **CONCLUSION**

AI's have made human work easier; Generative AI is a field that is rapidly progressing and developing every day. It involves creation of new content such as text, images, music etc. generative AI's creates Original works based of the data it has access to and refers to, which may or may not be protected under copyright, and so the work created by an AI isn't completely original hence it's not copyrightable. In several countries the laws stipulate that AI generated content are not copyrightable unless there is a higher degree of human work and the AI was utilized only as a tool for aid. The authorship of such works falls on the human rather than the AI. The laws governing generative AI are not conclusive and are rather ambiguous, as it does not have any statue regarding it, but is mostly based of the laws that govern data privacy and human intellectual property. As it's an emerging field the courts decide on a case to case basis regarding such cases. There is a crucial need for conclusive laws relating to AI in India so as to



eliminate the ambiguity and preserve authenticity. It also requires guidelines for the data fiduciaries to prevent bias or misuse of data.

In several other countries there have been cases where the AI has been granted copyright but not ownership and authority, however in India it is still not conclusive enough, relatively this proves the hypothesis of this paper wrong, which means that the ownership and authority over AI generated content does not fall on the AI or the developer but rather the user who provided the directions to the AI.



---

## **Exploring the Copyright Concerns Traversing Pharmaceuticals, Healthcare and Life Sciences Sector: A Public Health Dimension**

**P N Midhu\* & Sheela Ganesh\*\***

### **ABSTRACT**

*This article delves into the concept of copyright, copyleft which promotes open access and sharing of information which is contrast to traditional copyright and discusses the unique opportunities along with challenges presented by the protection of copyrights. The research paper highlights how copyright intersects with scientific innovation and public health needs. Further it gives a detailed analysis about copyright in pharmaceuticals, life sciences and public health while this discussion extends to a global perspective, evaluating how different countries navigate the balance between innovation, public needs in the perspective of health and copyright. Through detailed examples and case study this very article illustrates diverse strategies and policies adopted worldwide. Overall, the paper helps us to understand the role of copyright in advancing public health, life sciences and pharmaceuticals while immensely contributing to a better global health outcome.*

**KEYWORDS:** *Copyright, Life Sciences, Pharmaceuticals, Public Health*



**For Citation:**

---

**P N Midhu & Sheela Ganesh, 'Exploring the Copyright Concerns Traversing Pharmaceuticals, Healthcare and Life Sciences Sector: A Public Health Dimension' (2024) Special Issue JSS Journal for Legal Studies and Research 58 -73 <<https://www.jsslawcollege.in/jsslc-online-journal/>>.**

---

---

\* IV Year B.A., LL.B, JSS Law College, Mysuru.

\*\*Assistant Professor & Research Scholar, JSS Law College (Autonomous), Mysuru, Karnataka & Department of Studies and Research in Law, University of Mysore, Mysuru.

## INTRODUCTION

Intellectual property is any original creation of the human intellect such as artistic, literary, technical or scientific creation. IPR basically refers to the legal rights which are given to the inventor or creator to protect his invention or creation for a certain period of time. This gives a special right to the owner of the Intellectual Property to use his invention for a given period of time. The nature of intellectual property could be mostly intangible. Intellectual property is divided into two type's namely industrial property which includes industrial designs, patents, trademarks and geographical conditions; and copyrights. Industrial property means the very protection of the product of human mind; it involves the very design that is given to the product and served to the public. The design is could be one such example of industrial property. However, the upcoming discussion speaks about the very concept of copyright, copyleft while delving into a deep interpretation about copyright in pharmaceuticals, life sciences and health care in the aspect of public health.<sup>1</sup>

## COPYRIGHT

When a person creates an original work, he automatically gets to own the copyright over his original work. The word copyright in itself could be split into two words wherein copy and right, where when a person is to copy the work of the original owner, he is to obtain permission from him who is eventually called as copyright and this right which is given would be a legal right. It can also be called as the right to copy. The original creators of a particular product and anyone they authorize to use such product would be the one who mostly have right over that property. In almost all the countries the copyright law gives the creators of the original property the special right to further use or duplicate that particular property for a period of time and once such time gets expired the copyrighted item will eventually become public domain. This is done in order to prevent unauthorized duplication or use of such property and one such method to safeguard such work is copyright. Copyright indeed in itself has different field such as dramatic, literary work, musical work, sound recordings, and speech and cinematograph films; in these cases, the author, creator, and producer would be called as the 1<sup>st</sup> owner of that work. In India, the Copyright Act of 1957 deals with the very idea of copyright. It is a personal property right which is regulated by

---

<sup>1</sup>*National Centre for Biotechnology Information, NATIONAL CENTER FOR BIOTECHNOLOGY INFORMATION, <https://www.ncbi.nlm.nih.gov> (last visited July 25, 2024)*

various rules and regulations which govern the ownership, inheritance and transfer of rights pertaining to copyright.<sup>1</sup>A copyright holder has two ways where he can transfer his copyright namely assignment and license. Assignment is when the owner of the property sells his work to any other person and once the transfer of such property happens the owner has no right over that property and the ownership and such other rights transfers eventually. The person selling the property would be called as the assignor and the person who buys the property would be called as the assignee and this sale would be considered as contract. Wherein license merely means when the owner possesses the right and he allows a person to use the work without the owner's permission for a certain period of time. The person giving the license is called as the licensor and the person obtaining the license would be termed as the licensee.

A copyright is said to be infringed when one unauthorizedly uses the protected original work of the owner. There are basically three remedies when a copyright is infringed namely civil remedies, criminal remedies and administrative remedies. The remedies can be used according to the facts of the case.

### **IMPORTANT CONCEPTS OF COPYRIGHT**

A work that is copyrighted has its own duration as to how long it can be copyrighted, for example a literary work can be copyrighted for about 70 years after the death of the author and in case of films it is after 70 years of the last major creator of the films wherein for computer generated works it is 70 years after they were first created and distributed. The below mentioned are some of the important concepts of copyright.

- ***DOCTRINE OF FAIR USE:***

The doctrine of fair use is a legal doctrine which allows a limited use of a material that is copyrighted without the permission of the original owner.<sup>2</sup>This doctrine can be considered as a subjective concept and this can be different from case to case. In India, the Copyright Act of 1957 states that fair dealing with a literary, artistic, musical or dramatic work is not considered as an infringement of copyright. Doctrine of fair use could also be considered as an exception to the law that normally safeguards any material that is copyrighted under the act. This doctrine would depend on the facts and circumstances and would differ accordingly. The recent amendment

---

<sup>1</sup> New Delhi: Commercial Law Publisher (India) Pvt. Ltd; 2005. Anonymous. The Copyright Act 1957 as amended up to 1999 along with Copyright Rules 1958 and International Copyright Order 1999.

<sup>2</sup>*Office of the General Counsel*, OFFICE OF THE GENERAL COUNSEL, <https://ogc.harvard.edu> (last visited July 27, 2024).

made in the Act in the year 2012 states that the concept of fair dealing has included music or cinematography. Section 52 of the Copyright Act 1957<sup>1</sup>, provides that certain acts cannot be considered as copyright infringement. Computer program is however an exception to the concept of fair dealing.

- **CREATIVE COMMONS:**

Creative commons aims at protecting the intellectual property, and has unique approaches in terms of permissions, the level of control granted to the original creator and restrictions that are imposed<sup>2</sup>. These are of various kinds. The permission granted to others to modify, use and distributes is discussed in the concept of creative copyright. Creative commons provide a license which is called as the creative commons license offers a wide range of permissions, allowing the creators choose how their work could be used by the others which includes use and modifications even for commercial purpose. This method indeed seems to be flexible and encourages creativity and collaborations with certain limitations. It allows protection of the intellectual property while encouraging creativity within specific purview. The work could be shared to a wider network of audience where new audience and larger exposure could be gained. However, these licenses are less preferred as the creators are concerned about losing control over their work. Traditional copyright or open-source licensing is indeed a best alternative.

- **COPYLEFT:**

When a material is copyrighted certain amount of access is allowed upon such material where upon distribution, the user will be free to copy, examine and improve, share, and in some cases modify the product provided that the copyright holder has a right to set limitations as to what extent the material can be used. It is a general agreement that is granted by the copyright owner permitting or allowing anyone to freely use the copyrighted work but under specific terms. It is a method for making a work freely accessible. It requires all the modified and extended versions free as well. One way where such work could be displayed is by putting it in a public domain.

Copyleft encourages free accessibility, modifiability of a work while promoting innovations, collaboration and sharing of knowledge. It provides benefits to both developers and users where the developers bring in a collaborative environment and their work gets recognized largely while

---

<sup>1</sup> The Copyright Act of 1957.

<sup>2</sup> *Better Sharing, Brighter Future*, CREATIVE COMMONS, <https://creativecommons.org> (last visited July, 23, 2024)

the users benefit from the freedom to use such work. Copyleft prioritizes the rights of users despite the restrictions. They ensure that their rights are extended to all the users wanting to use the work. This concept encourages a knowledge sharing approach while allowing access to an open-source community.

**D) GLOBAL SCENARIO**

As we know the copyright laws vary from country to country. Each and every country has its own domestic copyright laws. The foreign use of ones copyrighted material is also dealt in its own domestic law itself. In order standardize the copyright laws the international agreements have set minimum standards which can be followed by the countries. The Berne Convention<sup>1</sup> indicates the duration of the term for copyright protection is the life of author and at least 50 years after their death. Where some categories also have a term for 25 years, in European Union and United states have extended 70 years after the author’s death. India has the copyright duration of 60 years after the author’s death. Mexico has the longest term that is 100 years after the author’s death and the government has no right of copyright. The below mentioned is a table which makes it easier to understand the copyright laws in different countries.

<b>TABLE1.1</b>			
<b>S.N</b>	<b>COUNTRIE</b>	<b>COPYRIGHT LAWS IN</b>	<b>DURATION OF COPYRIGHT</b>
<b>O</b>	<b>S</b>	<b>DIFFERENT COUNTIRES</b>	<b>LAWS IN DIFFERENT COUNTRIES</b>
1.	Argentina	Argentina Copyright Law, 1993	Lifetime of the authors + 70 years <sup>2</sup>
2.	Australia	Copyright Act, 1968	Lifetime of the authors + 70 years <sup>3</sup>
3.	Belgium	Code de droit e’conomique	Lifetime of the authors + 70 years
4.	Canada	Copyright Act, 1921	Lifetime of the authors + 70 years <sup>4</sup>
5.	China	Copyright Law of the People’s Republic of China	Lifetime of the authors + 50 years <sup>5</sup>

<sup>1</sup> <https://en.m.wikipedia.org>

<sup>2</sup> AR012EN Copyright, Law (Consolidation), 28/09/1933 (14/10/1998), No. 11.723 (No. 25.036)

<sup>3</sup> Division No:1 Copyright Act, 1968

<sup>4</sup> Chapter 10 of Copyright Act, 1921 (Amendment of 2022)

<sup>5</sup> Article 21 of Copyright Law of the People’s Republic of China

6.	Denmark	Consolidated Act on Copyright 2006	Lifetime of the authors + 70 years <sup>1</sup>
7.	Hong Kong	Copyright ordinance, cap.528	Lifetime of the authors + 50 years <sup>2</sup>
8.	India	Copyright Act, 1957	Lifetime of the authors + 60 years <sup>3</sup>
9.	Italy	Copyright Law (consolidation), 1941	Lifetime of the authors + 70 years <sup>4</sup>
10.	Japan	Copyright act, 1970	Lifetime of the authors + 70 years <sup>5</sup>
11.	North Korea	Copyright Act, 2001	Lifetime of the authors + 50 years <sup>6</sup>
12.	South Korea	Copyright Act, 1957	Lifetime of the authors + 70 years <sup>7</sup>
13.	Malaysia	The Copyright Act, 1987	Lifetime of the authors + 50 years <sup>8</sup>
14.	Mexico	Federal Civil Code, 1928	Lifetime of the authors + 100 years <sup>9</sup>
15.	Morocco	Copyright and Related Rights, 2000	Lifetime of the authors + 50 years <sup>10</sup>
16.	New Zealand	Copyright Act (Consolidation), 1913	Lifetime of the authors + 50 years <sup>11</sup>
17.	Nigeria	Copyright Act, 2004	Lifetime of the authors + 70 years <sup>12</sup>
18.	Portugal	Code of Copyright and Related, 1985	Lifetime of the authors + 70 years <sup>13</sup>
19.	South Africa	Copyright Act, 1978	Lifetime of the authors + 50 years <sup>14</sup>
20.	Sri Lanka	Intellectual Property Act, 2003	Lifetime of the authors + 70 years <sup>15</sup>
21.	Thailand	Copyright Act, 1994	Lifetime of the authors + 50 years. <sup>1</sup>

---

<sup>1</sup> Section 63, Consolidated Act on Copyright, 2006

<sup>2</sup>Section 17(2)

<sup>3</sup> Section 22 of Copyright Act, 1957

<sup>4</sup> Article 27 of Copyright Law (consolidation), 1941

<sup>5</sup> Article 51(2) of Copyright act, 1970

<sup>6</sup>Article 38 of Copyright Act, 2001

<sup>7</sup>Article 39 of Copyright Act, 1957

<sup>8</sup>Section 17(1)The Copyright Act, 1987

<sup>9</sup>Article 29 of Federal Civil Code, 1928

<sup>10</sup> Law No. 2-00 on Copyright and Related Rights, 2000

<sup>11</sup>Section 22(1) of Copyright Act (Consolidation) 1913

<sup>12</sup>Chapter 28 of Copyright Act, 2004

<sup>13</sup> Article 31 of Code of Copyright and Related, 1985

<sup>14</sup> Section 3(2)(a) Copyright Act, 1978

<sup>15</sup>Chapter 1 Intellectual Property Act, 2003

22.	United Arab Emirates	Federal Law No.7, 2002	Lifetime of the authors + 50 years
23.	United Kingdom	Copyright, Designs and Patents Act, 1988	Lifetime of the authors + 70 years <sup>2</sup>
24.	United States of America	The Copyright Act of 1976	Lifetime of the authors + 70 years <sup>3</sup>
25.	Zambia	Copyright and Performance Rights Act, 1994	Lifetime of the authors + 50 years <sup>4</sup>

## II) OVERVIEW OF PUBLIC HEALTH

Public health is the method of improvising the health of people or a community as a whole. This could be considered as the whole and sole responsibility of the state and individual particularly.<sup>5</sup> When there is a collective mindset that one has to improve by numerous people the community starts to develop as a whole. This very objective could be achieved by promoting people to live a healthy lifestyle, researching about diseases and their prevention, and how to cope up with it when it occurs. The community could be at local level or global level but however the objective seems to be the same that is to uplift the health of that particular community which eventually becomes a collective motive. It aims at achieving the highest standard of health by all. Some of the initiatives are Primary Health Care Centres (PHC), Universal Health Coverage (UHC). This could be done in three levels namely; primary, secondary and tertiary levels. The law which deals with public health is known as public health law. The World Health Organization has a Public Health Law and Policies Team which assists governments on legal issues and offers a legal perspective with expertise across law and health.

## III) COPYRIGHT IN PHARMACEUTICAL, HEALTHCARE AND LIFE SCIENCE SECTORS:

Copyright on pharmaceuticals allows a person to have open access to articles and allows future publications on that work after modification. It provides the author with license, author's

<sup>1</sup>Section 19 of Copyright Act, 1994

<sup>2</sup>Section 12 of Copyrights, Designs and Patents Act, 1988

<sup>3</sup>Title 17 of Copyright act of 1976

<sup>4</sup>Section 12 of Copyright and Performance Rights Act, 1994

<sup>5</sup><https://www.who.int>



warranties, user rights and rights of the authors. The pharmaceutical industry has a lot of rapid exchange of information that takes place across national international borders where the right holders and users of published materials face complexities involving re use, rights, permissions and restriction. The complexities have indeed increased due to advancement of technology as it has been evolved from paper to laptops and smart phones.

The copyright laws differ from country to country and therein the obligations and norms differ from place to place. However, these laws imply the same concept as to not to reuse the material without the owner's permission. The information in the pharmaceuticals could be about latest advancement in scientific and medical sectors or any sought of new innovation in this field.<sup>1</sup> The information could also be journal articles, newspapers, articles from magazine, clinical papers, research papers etc., research and information professionals rely on their ability to quickly disseminate information to accelerate the growth of discovery of drugs, to keep physicians reported, to communicate government, to communicate with the regulatory authorities and to monitor the safety of drugs in the commercial places. It becomes necessary to share the information while respecting the right of the owner of the work. The fast dissemination of articles would enhance the productivity and can often speed the pace of drug discovery.

The regulatory authorities such as food and drug administration of all the countries are to be informed while using copies of previously published material in the process of obtaining regulatory clearance for drugs and medicines. The compliance of copyright becomes important as it can go to the extent of infringing a country's information. The case being so it becomes easy to breach copyright laws by intentionally or unintentionally sharing such information. Such work would come under the literary works of copyright. In order to share any such, information the permission of the copyright owner of the work is needed to do so. For the efficient working of pharmaceuticals collaboration is necessary. It becomes obvious that sharing information from books, journals, newspapers and magazines would take place. The information could be copy pasted and stored in the emails of the employees, but the purpose for what it is used could be questioned. In order to combat such issue a copyright license is issued. The copyright license for such companies gives freedom to a person to legally use, modify or reuse the work. The

---

<sup>1</sup>Homepage 2023, RIGHTS DIRECT, <https://www.rightsdirect.com> (last visited July 11, 2024)

information could be shared to the persons as well provided that royalties are to be paid to the creators whose work is used. A new creation could be indeed fostered through such methods. This way the creator could be benefited with the help or royalties while the person who reuses the content can enhance the creation. Copyright in pharmaceuticals can ensure collaboration, learning and innovation, speed and efficient flow of information and protects the world throughout the world. On getting a work copyrighted risks such as disputes could be reduced.

#### **IV) RECENT TRENDS OF COPYRIGHT IN PHARMACEUTICALS, LIFESCIENCES AND HEALTHCARE SECTOR:**

As the technology has evolved the very consumption of digital content also increases simultaneously. The complication of online piracy, digital rights management, and fair use in digital realm also increases. The introduction of updated frameworks for online right management, licensing and enforcement of guidelines helps in the protection of copyright owners and users of the content. Meanwhile the use of AI has impacted the industry at large. There are various therapies present which tend to infringe the rights of the copyright owner and how this issue could be combated is also mentioned below. The issue of 3D printer has also impacted the topic as requires the design in order to get the byproduct where the use of that design without the inventor's permission would also result in the infringement of copyright.

- ***MUSIC THERAPY AND COPYRIGHT:***

Music therapy is the use of music and elements if music like sound, rhythm and harmony to accomplish goals like reducing stress or quality of life. The music therapist talks to the patient and learns about the needs and designs sessions specifically for him. The progress would be evaluated eventually.<sup>1</sup>The power of music is used to treat a wide range of people who are ill. This practice has benefited many youths and adults annually. It is indeed a form of Tele-health service. The therapy could take place through various video conference set up as well.

In order to play music for a therapy a person must have created one which makes it obvious that there has to be an owner. For a copyrighted music the rights holder has a right to exclude his

---

<sup>1</sup>*National Center for Biotechnology Information*, NATIONAL CENTER FOR BIOTECHNOLOGY INFORMATION, <https://www.ncbi.nlm.nih.gov> (last visited July 25, 2024)

music from being used for several purposes provided that there are some exemptions such as the doctrine of fair use. A copyright holder could make copies of the work, could derive something new out of the work, he can perform or withhold from performing his work publicly and give out or withhold from giving out his work publicly. However, a copyright holder does not have the right to sue a person for private performance of a music that he has made. In other words, playing copyrighted music in a private setting does not constitute infringement of copyright. But during the pandemic music therapy was found to be not in a private setting.<sup>1</sup>

The COVID 19 has indeed increased the very use of Tele-health services, the use of workouts, diets, treatments and therapies were done in an online set up in order to avoid contact with persons in order to prevent the spread of diseases. As the therapies were also held online the therapists had also found it difficult to use the copyrighted materials due to the complications of infringement. As there was lack of clarity in the copyright laws the medical health practitioners, it was found threatening to use music for therapies. Therein copyright during that became a barrier for traversing public health at large.

The reason for such controversies is that firstly when music is to be played during a therapy without the permission of the owner of the music that might result in copyright infringement and secondly even if the therapist is going to be playing the music in private he would indeed earn profit out of the same and one of the main reason for him earning the profit is the music so would the copyright owner of the music be entitled for at least half the profit that the therapist has earned. Currently, the status of these controversies though unresolved would be dealt under the doctrine of fair use and only public use of such music would result in the infringement of copyright. Overall, the nature of the copyright laws not being clear has made the therapist threatened due to the disputes that would arise on copyright infringement.

- ***3D PRINTING AND COPYRIGHT:***

As we know manufacturing is a step-by-step procedure. It is a process of obtaining finished products by processing raw materials. There are two types of manufacturing namely subtractive

---

<sup>1</sup>Lisa Hartling PhD, *Music in the Pediatric Emergency Department*, JAMA NETWORK | HOME OF JAMA AND THE SPECIALTY JOURNALS OF THE AMERICAN MEDICAL ASSOCIATION (Sept. 1, 2013), <https://jamanetwork.com/journals/jamapediatrics/fullarticle/1712579>

manufacturing and additive manufacturing; subtractive manufacturing means a product was obtained by reducing the raw materials. This could be carving, drilling etc., wherein additive manufacturing means additional layers of raw materials are added in order to obtain a finished product. That being the concept 3D printing falls under additive manufacturing. It is a process where a digital file is used to create a solid object. This process requires the sequential layers of materials to be placed by the 3D printer until the final outcome of the object is achieved. There are three aspects as to how 3D printing works, they are: the computer aided designs (CAD) files or a 3D scanner, printer, and the materials that are used to print the objects that are tangible.

As in for copyright only the CAD files would apply as the rest would be applicable to the concept of patent and trademark. These files would contain all plans, designs, geometrical information as to how a tangible object that is to be printed. These plans or designs would be usually drawn out of one's own creativity or a drawing that already exist and is first scanned and then scored in the form of CAD files which when inserted into a printer gives the output or tangible product. The plans would either constitute to a literary work as CAD files are software programmes or they would constitute to an artistic work as it is a fundamentally a model, design or a schematic representation of an object or a thing. It is seen as more of an artistic creation than of a simple computer programme. The protection is granted to the files scanned using 3D scanner because the files contain the information about the features of the object. Since the object being the expression of the file itself the file is given protection under copyright. The infringement in the context of 3D printing would be dealt under Section 14 (c) (i) of the Copyright Act of 1957. One of the exclusive right that is given to the author is that he can convert his three dimensional work to a two dimensional work.

The Italian Company Isinnova holds patent for on a valve used in breathing machines that are important COVID patients. <sup>1</sup>The company could not meet the immense demand for its valve. In response to the situation, two engineers used 3D printers these essential devices locally near brasslike in northern Italy which was a region which was affected by COVID severely. In response, the patent holder filed a law suit for infringement of patent, however due to the public

---

<sup>1</sup>3D Printing Center - 3DPC | We Speak 3D Printing, 3DPC | WE SPEAK 3D PRINTING, <https://3dprintingcenter.net> (last visited Aug. 1, 2024).

outrage the suit was dropped by Isinnova. However, a question arose regarding whether in present case if it amounted to patent infringement or copyright infringement. The answer is that it resulted in both copyright and patent infringement. It resulted in copyright infringement as it consists of CAD file and this CAD file has plans, designs, and geometrical information and it resulted in patent infringement because of the object was first produced by the company and had patented for it. The use of 3D printer has impacted the COVID times immensely. Ventilator valves, adaptors, mechanical bag valve mask, Non-invasive ventilation, COVID specimen collection kit which even contained testing swabs, medications such as fused filament, gel extrusion, gel extrusion etc were made out of 3D printers.<sup>1</sup>

- **AI AND COPYRIGHT:**

The controversies of Artificial Intelligence and Copyright existed ever since the very concept of AI was found. It has been understood that in order to impose a liability AI could be regarded as an artificial person such as company. The doctrine of lifting the veil could be applied here in case of any sort of infringement is to take place. Wherein bringing in the concept of AI and copyright in pharmaceuticals, life science and healthcare, a lot of research work is done by experts in order to bring an outcome and their work is written in journals and is then copyrighted.<sup>2</sup>Allowing an Open AI source to have access to those works would be the real conflict in the present era. Suits were filed as AI used the contents produced by these journals. They were also termed as “wide-scale copying” or “unlawful” wherein in their defense, it was termed as training and therein these disputes however took the defense of doctrine of fair use as the use of the copyrighted work is sufficiently changeable so as to not to infringe the original author’s work.<sup>3</sup> Hence, there would be a need to close the very concept of collecting data from an open source or AI would have their data collection from open sources stopped and only licensed users would have access to such source. But this would limit the use of that source bringing in the legal complication alongside making it difficult for scholars to use it unless they have the license to access the same. Open AI further contended that this would limit their progress and growth of innovation.

---

<sup>1</sup>Ranney M L, et.al, *Critical Supply Shortages — The Need for Ventilators and Personal Protective Equipment during the Covid-19 Pandemic*, THE NEW ENGLAND JOURNAL OF MEDICINE, <https://www.nejm.org/doi/full/10.1056/NEJMp2006141> (last visited Aug. 1, 2024).

<sup>2</sup>WIPO - *World Intellectual Property Organization*, WIPO - WORLD INTELLECTUAL PROPERTY ORGANIZATION, <https://www.wipo.int> (last visited July 25, 2024)

<sup>3</sup><https://www.cambridge.org>

However, the concept of minimal prompting is not assured by AI and these journals have the chance of being unauthorizedly displayed for public. Generative AI could be given data training to possess humanlike quality but humanlike quality of AI is in itself a controversy. The application of AI to medical and pharmaceutical sector would be if not wholly at least partially dependent on copyright. The field requires a wide range of discovery and research along with thoroughness. As in when a private sector discovers something they would want their work to be copyrighted. AI would significantly depend on a de facto solution, for example when a research is being done practically to find a medicine the molecular formula can be tested only with the help of deriving a formula. Therein AI could profoundly find a medicine only depending upon the substances that we are to mention. However, the implications of training data may still appear.

Therein the very idea of closing the access to data should be avoided and allowing these AI tools which provide high valued medical research, literature review assistants, decision making diagnostic algorithms, robotic surgery, and tools that provide patient-care have access to data training for better improvement of these sectors. However, a thin line can be drawn with regard to having an access to such data in order to respect the work of the copyright owner through a copyright protection as it would avoid plagiarism.

#### **V) CASE STUDY AND JUDICIAL INSIGHTS:**

Copyright law protects the creativity of the author. In particular it protects the creative expression of the author's idea.<sup>1</sup> In the case of *United States v. Articles of Drugs*,<sup>2</sup> the court distinguished between an imitation drug under the Federal Food, Drug, and Cosmetic Act. The court proclaimed that the act was made in order to protect public health and the terms are interpreted widely in order to achieve its purposes. An imitation drug is the one that passes off one substance in imitation of another wherein a counterfeit drug is a drug that stimulates another's label, container, and/or identifying marks.

---

<sup>1</sup><https://www.scribd.com>

<sup>2</sup>362 F2d 923

In the case of *Smithkline Beecham Consumer Healthcare v. Watson Pharm, Inc.*,<sup>1</sup> along with a tape was a gum that accompanied where the tape contains music and there was also a guide which was given as to how the gum is to be used which aided to quit smoking. This was brought by the Smithkline who is the plaintiff. Brand manufacturers are required to include samples of their labeling in their new drug applications. Pursuant to that the plaintiff submitted the tape and guidelines to FDA, spent two and a half years and made approximately up to 70 modifications to meet the requirements of FDA.

Waston, the generic company defendant, sought to obtain FDA for a generic gum. The Hatch- Waxman's Amendments required the same process for labeling as they required for brands. Thus, the plaintiffs and the defendant's gums were identical. The plaintiff filed a suit as to having the same labeling and the defendant snatched the brand name. The court held that the federal law would overrule the Copyright law and therein it would not amount to infringement.

#### **VI) ISSUES, CONCERNS AND SUGGESTIONS**

In the field of pharmaceuticals, healthcare and life science sector it is common to information as it is fully based on research. From answering to medical information request, writing articles, and training presentations to sharing the findings of the latest research from a journal, the interconnection between the use of content and infringement of copyright has been the utmost concern that has been looked into. For those who want to access such information, seeking permission individually can be not so efficient and costly.

- Medical affair departments are asked to supply information which are scientifically valid to their customers. Obtaining permission from the copyrighted owner every time the professional needs information makes it difficult for them and it is indeed time consuming. This may lead to the risk of development of such disease.
- Finding the essential drugs for curing a particular disease using the already researched work gets delayed because of the licensing and permission preceding that could take place. In order to get the work done the copyrighted material are to be distributed without the complexities.

---

<sup>1</sup>63F. Supp.2d 467

- As there is a growth of digital technology, the sources are open which makes it difficult to supervise the use of content by the public.
- There is a misconception of users about copyright law as they assume that since its available on the internet for free, then it must be free to copy and use that material.
- It is difficult to get rights licensing for this sector and is not easily accessible to everyone. High chances of copyright infringement as such information could be shared from one country to another.

***Suggestions:***

However, there are certain ways to partially combat these problems.

- By purchasing content subscription, the research work could be easily accessible. Where allowing certain universities and research centers to access information on paying the subscription amount would be helpful for the researchers.
- There can be combinations of companies and organizations as to a particular research as sharing of information could be easy and would not infringe the copyrighted work as they all work in the same project. Therein all the combined organizations can hold copyright together instead of holding separate ones.
- The process of licensing could be made easy which would encourage people to purchase it. The companies could grant or set up certain rights and permission as to how one can access to their data. This could include implementing terms and conditions and collection of data which would help in identifying the person who has infringed the work in case there is a misuse.
- Education and awareness of copyright are to be made known to the users.
- The consequence of infringing a copyrighted work should be known to the public. Awareness can pop up while opening a particular document. The sharing of information shall be done within the licensing capacity.

**VII) CONCLUDING REMARKS**

Overall, copyright in itself is a very vast concept. The field of pharmaceuticals, healthcare and life sciences need to share information from time to time as they are more concerned about public health at large. There were certain allowances during critical periods like the pandemic. The information was shared in order to protect wide range of people. Be it masks, vaccines, or



sanitary measures there has to be at least one person who had innovated such innovations, if they had claimed for copyright infringement almost half of the world would be confused as to how they could protect themselves in order to survive. This is where the concept of doctrine of fair use and copyleft comes into play. The owner of the work has all the right as to how much a person can have access to a material while allowing and encouraging new inventions that are good for the public. Everything starts with a literary work and formula in this industry. A slight change or misuse of the same could immensely affect the public. There has to be measures taken by the governments because as how a change or modification can bring out solution for various disease the same way the same change or modification can bring disaster to people. That's why there has to be balance of strict laws and allowing people to have access to the copyrighted work.



---

# **The Complexity of Copyright in the Fashion Industry: An Analysis of Design Protection and Fast Fashion**

*Mokksha Shah<sup>1</sup>*

## **ABSTRACT**

*The worldwide fashion business is a huge and rapidly expanding sector that is currently valued at billions of dollars; the fashion industry is still embroiled in discussions about copyright protection for designs. The practice known as "fast fashion," in which affordable designers imitate expensive designs seen at fashion week events before the originals hit the market, is a major point of contention in this discussion. Fashion weeks are important occasions for the business; they take place every two years in the summer/autumn and winter/spring seasons. New York Fashion Week gave rise to these events in the early 1900s, and now they serve as international stages for designers to showcase their most recent collections. But these collections' exposure also makes them more susceptible to imitation. High-end designs are frequently imitated and sold quickly by low-end designers, undercutting their original creators in the process. Fashion design copyright protection is still a hotly debated topic. In contrast to other artistic, musical, and literary disciplines, fashion designs typically do not enjoy copyright protection. The main reason for this lack of protection is because apparel is practical, which often qualifies it as exempt from copyright laws. High-end designers consequently have a difficult time protecting their works against illegal duplication.*

**KEYWORDS:** Artificial Intelligence, Copyright, Ownership, Authorship, Generative – AI.

## **For Citation:**

---

Mokksha Shah, ' The Complexity of Copyright in the Fashion Industry: An Analysis of Design Protection and Fast Fashion ' (2024) Special Issue JSS Journal for Legal Studies and Research 74 -87  
<<https://www.jsslawcollege.in/jsslc-online-journal/>>.

---

<sup>1</sup> Student of Gujarat National Law University  
email – [mokksha22bb1026@gnlu.ac.in](mailto:mokksha22bb1026@gnlu.ac.in)



## INTRODUCTION

Fashion designers lack the comprehensive protection for their creativity that other fields, such as engineering, enjoy. The famous book "Zero to One" beautifully explains the concept of true invention and innovation, highlighting how groundbreaking inventions typically receive robust copyright and patent protection. In industries like music and art, creators are afforded strong protections for their innovations. However, in the fashion industry, designers often find themselves without adequate protection for their creativity, designs, and innovations. While copyright and trademark laws offer some level of protection for fashion designs and colors, they do not provide complete rights over any particular design or color. Copyright and trademark laws are primarily focused on protecting creative works like music and art, rather than practical or useful products. On the other hand, patent law covers new inventions and useful ideas, leaving a gap in protection for fashion designers. This makes fashion designers particularly vulnerable.

The major concern that motivated this paper is the rampant copying in fashion design, which has recently intensified. High-end designers face significant issues as their designs are frequently copied by low-end designers. High-profile clients, including renowned designers like Anna Sui, Diane von Furstenberg, and Manish Malhotra, have filed lawsuits addressing this issue. Brands such as Forever 21, Zara, and H&M, often referred to as "fast fashion" firms, are known for quickly replicating original designs and selling them at low costs. These firms' ability to replicate designs rapidly and on a large scale makes it challenging for original designers to protect their creations. High-end designers are advocating for stronger legal protections and have called on the government to amend copyright laws to better safeguard their creativity.

The Council of Fashion Designers of America (CFDA) has sought Congress's assistance to address the longstanding lack of intellectual property protection for fashion designers. In this Comment, I address the normative question of the extent of intellectual property protection for the unique perspective of law and economy that fashion game theory offers. I do this by developing a game theoretic model that assesses the impact of legal protection on the incentives that fast-fashion companies and fashion designers have to protect their designs. Determining whether the IDPPPA in its current form will discourage fast-fashion companies from copying designs, promote innovation, and maximize, this Comment's Part I provides a

thorough analysis of the current status of intellectual property protection for fashion designs in the US and contrasts US protection with the legal frameworks of other countries.

In Part II, scholarly opinions on the normative topic of whether a legal framework should be in place to safeguard fashion designs are compiled and discussed in relation to recent changes in the fashion business that have prompted a protest against copying. The background information on the legal and economic approaches to intellectual property protection is given in Part III, which also discusses the applicability of game theory, a technique utilized in both fields to study the problem of fashion design copying.

Part IV presents the foundational ideas and framework of a game-theoretic model and applies it to several legal frameworks that safeguard fashion designs. In the end, Part V looks at the results of the game theory research in Part IV, assesses how effective the Innovative Design Protection and Piracy Prevention Act (IDPPPA) is as a policy option, and suggests some other options.

## **INTELLECTUAL PROPERTY PROTECTION FOR FASHION DESIGN**

In the United States, there is no specific law dedicated to protecting fashion designs. Instead, fashion designers must rely on various existing legal mechanisms, such as patents, trademarks, and copyrights, among others, to safeguard their creations.

### **Trademark**

Trademark law plays a major role in protecting "any word, name, symbol, or any combination thereof" used by a person to represent or identify their product. While our paper primarily discusses fashion designers, trademarks can protect specific elements of a fashion designer's logo. However, they do not extend to protecting the entire fashion design.

By embracing a broader and more comprehensive definition of trademarks, fashion designers can apply trademark law to protect their designs, which is an explicit prerequisite for trademark registration. Designers can protect their designs in two primary ways: through inherent distinctiveness or by acquiring secondary meaning. Inherent distinctiveness refers to the uniqueness that naturally originates from the designer, while secondary meaning is when a design initially lacks distinctiveness but gains uniqueness over time as consumers start associating it with a particular source.

In trademark law, four key factors are crucial. First, trademark protection is mainly used to safeguard brand names and logos. Second, visibility matters: the more visible and precise a

product is, the more likely it is to receive trademark protection. For example, Gucci's specific, precise, and noticeable design elements make it easier to protect. Third, design protection is significant. Major international brands often have distinctive and noticeable designs that help identify their brand. Similarly, if you want to protect the design of a product that lacks a unique logo, particularly in clothing items, you might consider using "trade dress" protection. Finally, trademark law does not protect the functional aspects of a product. If the shape or design of an item is essential to its use or purpose, it falls outside the scope of trademark protection. By understanding and applying these principles, fashion designers can better navigate trademark law to safeguard their creative works.

## **PATENT**

Utility and design patents are theoretically available to fashion designs in the form of intellectual property rights. A utility patent can be obtained by having an invention that moves from zero to one, meaning it involves discovering or inventing something new. Additionally, the product must be truly novel and non-obvious. The non-obvious requirement indicates that the product should represent a significant leap, or a zero-to-one invention, in relation to the standard shape and form of articles of clothing.

## **COPYRIGHT**

Copyright plays a role in fashion designs due to the statutory subject matter, which includes "original works of authorship fixed in any tangible medium of expression." However, an article of clothing cannot receive copyright protection because it is considered utilitarian, meaning it serves a practical function. In the Supreme Court case of *Mazer v. Stein*, the Court allowed mass-produced items to have copyright protection. However, this protection applies exclusively to the artistic design of the lamp, not its functional parts.

## **LEGISLATIVE INITIATIVES TO EXPAND COPYRIGHT PROTECTION FOR FASHION DESIGN**

I would refrain from calling it the latest effort in intellectual property protection, but it is still a specific measure designed exclusively for fashion design. The IDPPPA, under Title 17 of the United States Code, aims to strengthen copyright protection for fashion design. Under the

IDPPPA, the protection period is three years, and the standard for infringement is "substantially identical," which is stricter than the "substantially similar" standard used in general copyright law. Additionally, the IDPPPA includes a pleading standard, requiring plaintiffs to provide sufficient details about their designs to infer that the defendant had knowledge of the design. The remedies for infringement under the IDPPPA allow the plaintiff to recover either damages adequate to compensate for the infringement or the infringer's profits from the sale of the copies. Courts may also award attorney's fees. Although the IDPPPA represents a more lenient approach compared to the earlier Design Piracy Prohibition Act (DPPA), its passage into law remains uncertain.

"Fashion design" –

“(A) is the appearance as a whole of an article of apparel, including its ornamentation; and

(B) includes original elements of the article of apparel or the original arrangement or placement of original or non-original elements as incorporated in the overall appearance of the article of apparel that –

(i) are the result of a designer's own creative endeavour; and

(ii) provide a unique, distinguishable, non-trivial and non-utilitarian variation over prior designs for similar types of articles.”

The IDPPPA provides protection for only three years, which is a relatively short period compared to the longer protection terms available under standard copyright laws. The IDPPPA requires a very high level of similarity for a design to be considered infringing. Additionally, the pleading standard requires the plaintiff to provide valid and precise details before the court to establish infringement by the defendant. If the plaintiff proves their case, the remedies for infringement include:

A. The plaintiff can receive compensation in the form of damages.

B. The plaintiff can recover the profits that the infringer made from selling the copies.

C. Additionally, the court may order the infringer to pay the plaintiff's attorney fees.

### ***A. International Strategies for Addressing Fashion Design Imitation***

The American intellectual property rights regime has been criticized by some for falling behind many other countries in several areas. In addition, there is a fashion design gap between the United States and other countries, which has been used as justification for the urgent need for

legislative action. Looking ahead to other nations' perspectives, France tops the list with the strongest position regarding clear design protection, while the United Kingdom and the European Union offer legal safeguards that closely mirror the proposed legislation. These different strategies, which make a strong impression, should be taken into account while evaluating the IDPPPA as a legislative framework for fashion design protection.

### **FRANCE**

A number of nations have taken a strong stance in favor of preserving fashion designs and have given fashion designers special protection rights. Fashion designers were shielded from copyright laws long ago when the Copyright Act of 1793 classified clothing as an applied art.

In France, fashion designers receive copyright protection immediately upon creating their designs, whereas in the United States, designers must register their designs to obtain protection. In France, this protection lasts for the creator's lifetime plus 70 years. If someone attempts to copy the design, strict legal actions are taken, including court orders to seize infringing copies and the possibility of obtaining financial compensation.

### **UNITED KINGDOM**

In the UK, fashion designers can seek legal protection through either registered or unregistered design rights. Under British law, a registered design gives full ownership of a new design, providing protection for five years, which can be renewed for up to twenty-five years. However, the design must be original. The majority of the public in the UK prefers unregistered design rights. While these rights do not grant full ownership of the design, they do protect against someone copying it.

### **EUROPEAN UNION**

A designer can choose to use a Community Design Right, which offers protection not just within one nation but throughout all of the European Union's member states, as an alternative to requesting special legal protection from one nation. Community design rights cover a variety of features, including the product's appearance or specific components of it, such as lines, colour, shape, texture, materials, and decoration. They are available in both registered and unregistered forms. This implies that based only on their outward look, fashion designs may be protected.

Like in the UK, the designer is granted exclusive use of the design for a maximum of 25 years upon application and approval of a registered Community Design Right. For a maximum of three

years, copying is automatically prohibited when a Community Design Right is unregistered. The Community Design Right is a desirable alternative for fashion design protection due to its wide and comprehensive geographic reach.

Furthermore, some experts contend that despite the European Union's protections for intellectual property, fashion design piracy persists. They observe that despite the disparities in their legal systems, fashion brands in the US and the EU act in comparable ways. Nonetheless, a recent piece made clear that fashion designers are finding great value in the recently established EU unregistered design right, which has resulted in numerous litigation and settlements. As such, it may be premature to declare the Community Design Right a success or failure. Given the similarities between the unregistered Community Design Right and the DPPA and IDPPPA in the U.S., one thing that is certain is that the EU's approach will eventually provide critical insights on how to defend fashion designs via domestic legislation.

### **ADDRESSING COPYING IN THE FASHION INDUSTRY**

There are various kind of copying methods with different ways, it is important to differentiate what kind of copying is been practiced refers to intellectual property right. The media frequently emphasizes how well governments and private businesses have done in preventing knockoffs and counterfeit goods, particularly when it comes to well-known trademarks. Trademarks are emblems or logos that denote the origin of a product and convey its exclusivity and caliber. Lawsuits against trademark counterfeiting are frequent and typically successful because these symbols are expressly protected by the law.

This Comment, however, focuses on a different type of copying that isn't given as much attention: replicating a product's exact form and style. Fashion designs lack robust legal protection, which makes it more difficult to pursue legal action against individuals who imitate them. This is in contrast to trademarks.

### ***Scholarly Debate on Fashion Design Duplication***

It is hardly surprising given the state of the globe lately that both fashion design and intellectual property rights are growing. Fashion design should have strong intellectual property rights (IPR) protection, much like other forms of creation like music and literature, according to different



perspectives on the subject. The statement "fashion thrives on trend and inspiration," which frequently permits features like copying and remixing current design, answers the opposing counter-question. The best course of action is therefore to take a balanced approach, in which the original work must be protected while still allowing other designers to draw inspiration from it.

## **LOW INTELLECTUAL PROPERTY PROTECTION**

Prominent academics Kal Raustiala and Christopher Sprigman contend that, because it might be advantageous and contribute to political stability, the fashion sector should have little intellectual property (IP) protection. There is a counterintuitive benefit to fashion design from this position. Fashion designs usually don't last long, and this is an industry that innovates quickly. The academics argue that in a system with minimal IP protection, innovation is unaffected. They use the European Union as an example, where copying is less common than lawsuits despite fashion designs being legally protected there, indicating that tougher regulations could be required.

However, this evidence is not entirely convincing. One critic has noted that IP protection in the UK appears to have spurred more creativity in affordable fashion, as firms have found inventive ways to design without violating copyrighted creations. Furthermore, since the publication of Raustiala and Sprigman's article, there have been several high-profile lawsuits concerning fashion designs in the United States, indicating that copyright protection may be more important and effective than the European example suggests. Critics argue that mid-range designers have been driven out of business, leaving the most expensive gowns for the upper echelons of the market. Proman, however, uses this data to support his claim that there is a "healthy competitive market" where designers can consistently raise prices. While this data can be interpreted in different ways, the growing gap between high-end and low-end designers indicates shifting market dynamics and suggests that legal action may be necessary.

## **HIGH INTELLECTUAL PROPERTY PROTECTION**

On the other hand, there are proponents who strongly advocate for high levels of intellectual property protection, particularly within the fashion industry. They believe that without robust legal safeguards, their innovations and creativity will not be adequately recognized, which could ultimately discourage further innovation. Reflecting this viewpoint, fifty Americans, represented by the Council of Fashion Designers of America, lobbied for legislation that provides intellectual

property rights to fashion designers. As a result, the Design Protection and Piracy Prevention Act were adopted to address these concerns.

### **INTERMEDIATE INTELLECTUAL PROPERTY PROTECTION**

The topic suggests a middle-ground solution to the issue of copyright protection in the fashion industry. This approach advocates for granting copyright protection to fashion designs but with certain limitations to ensure that innovation continues without infringing on creativity. The Design Piracy Prohibition Act (DPPA) and the Innovative Design Protection and Piracy Prevention Act (IDPPPA) aim to balance these concerns and provide a form of protection that maintains this equilibrium. Through extensive discussions among scholars, Hemphill and Suk propose a different method to safeguard designers' creativity by introducing the concept of "substantial dissimilarity." This principle allows other designers to copy some parts of a design, provided that the end result is significantly different from the original.

Neither current law nor the IDPPPA fully incorporate this principle, as they require an infringing design to be "substantially identical." However, the IDPPPA does consider some of Hemphill and Suk's ideas. In her testimony in support of the IDPPPA, Professor Suk argued that the legislation effectively addresses precise copying. She asserted that fast-fashion retailers should innovate and invest in their own designs rather than relying on knockoffs.

Contrary to Professor Sprigman's view, Professor Suk believes that the IDPPPA would promote innovation rather than stifle it.

### **HOW GAME THEORY SHAPES INTELLECTUAL PROPERTY PROTECTION**

The scholarly discussion on fashion designs, summarized in Part II, is both interesting and energetic, yet it lacks a bottom-up analysis and research from the perspective of fast-fashion companies or fashion designers. Rather than making generalizations about whether a legal regime may foster innovation, this study uses theory to investigate, at the most basic level, the economic constraints that fast-fashion companies and fashion designers must contend with, as well as the choices they would have to make.

Intellectual property law has traditionally been viewed through the lenses of law and economics. It is widely acknowledged that encouraging innovation is one of the fundamental principles of intellectual property protection. Given the importance society places on fashion designs, it is

reasonable to argue that even within the fashion industry, it is crucial to offer a sufficient degree of intellectual property protection so that fashion designers can make a living and continue their creative endeavors. Game theory studies strategic behavior between individuals, which occurs when "two or more individuals interact and each individual's decision turns on what that individual expects the other to do." Due to its unique ability to examine individual behavior, game theory has proven to be incredibly beneficial.

The most basic and well-known game theory example in the legal science domain is the prisoner's dilemma, which highlights the issue of cooperative coordination. In this case, two people have committed serious crimes, but the evidence against them is only strong enough to bring charges of a lesser offence if one of them confesses. After questioning each of the two offenders separately, the police threaten to send them to prison for three years each if neither of them confesses to the smaller offence. On the other hand, the penalty of the one who confesses to the main crime and implicates the other will be lowered to one year, while the other would receive a severe sentence of twenty-five years. If both admit guilt, the terms they are serving will be cut to ten years each.

This dilemma exemplifies Nash equilibrium, where each criminal selects a strategy that is the "best response" to the strategy of the other criminal. From each criminal's perspective, choosing an alternative course of action that does not maximize individual payoff and results in a lesser punishment would be irrational. In the prisoner's dilemma, the only set of strategies that result in a Nash equilibrium is when both criminals confess. This outcome is derived by considering each criminal's "best response" to a particular strategy. If Criminal 2 confesses, Criminal 1's best response is also to confess to avoid a 25-year sentence. If Criminal 2 does not confess, Criminal 1 still finds it optimal to confess and receive a one-year sentence rather than a three-year one. Thus, regardless of what Criminal 2 does, Criminal 1 will always confess, and the same logic applies to Criminal 2.

The prisoner's dilemma provides important insight into why this particular outcome, where both offenders confess, is not ideal for the criminals. The best outcome for each would be a three-year sentence if they could coordinate their strategies and choose not to confess. One structural element of the prisoner's dilemma is that it presumes a "one-shot" scenario, where the two offenders only engage in one interaction and never play the game again. In a one-shot version of

the prisoner's dilemma, the Nash equilibrium involves both criminals confessing and ending up in jail. However, this equilibrium may not hold in a repeated game scenario.

In a repeated game scenario, both offenders might agree in advance not to confess and to repeat this decision in subsequent rounds. Even though each has an incentive to confess and break their word for the shortest possible sentence, the threat of retaliation in future rounds creates an incentive to stick to the agreement. Eventually, the game will end, turning the finite game into a one-shot game, and the criminals revert to their initial Nash equilibrium of both confessing. Thus, it is crucial to distinguish between one-shot and repeated games.

The simultaneous nature of the game, in which two players must simultaneously choose the best course of action without knowing how the other player will act, is a second structural feature of the prisoner's dilemma. While this simultaneous game makes sense and may be used in a variety of situations, sequential games—in which players take turns and make decisions fully aware of each other's strategies—are a better representation of other interactions. Market entry is a typical use case for sequential games; for instance, when a company enters a new market, the existing company has the option to either compete or adjust to the new competition.

Decision trees are frequently used to depict sequential games. Decision trees start with a base node, from which branches are constructed to indicate the many actions or approaches that players may select. The strength of a game as a model for interactions in the real world and the insights that can be gained from it depend on whether it is sequential or simultaneous.

Putting away these one-shot prisoner's dilemma structural presumptions, it is evident that the game offers a sophisticated yet straightforward example of how a coordination failure occurs when participants are required to make decisions simultaneously. The prisoner's dilemma is so popular, in fact, that over three thousand law review publications have mentioned it, according to one expert. The remainder of game theory has been disregarded in the interim, and games other than the prisoner's dilemma that are straightforward and more perceptive are hardly employed in legal analysis. As a result, the use of game theory by legal experts has been rather restricted

How people will act under various tort law liability rules is an intriguing way that game theory can be applied to the law. By applying game theory to forecast how businesses and fashion designers will behave in the market under various legal frameworks, such as the soon-to-be IDPPPA, this comment seeks to expand the application of this model to intellectual property protection for the fashion industry. Analysis and discussion of the ideal extent of intellectual

property protection for fashion designs have seldom been done using game theory. A recent paper that use the prisoner's dilemma to explain and defend the absence of protection in the fashion industry is the only comprehensive application of game theory to intellectual property protection for fashion designs. They never know which designs will be successful, the authors propose that fashion designers would rather have an incomplete property system and play the "design lottery" every season. As a result, designers take part in a cooperative regime in which limited imitation serves as insurance against losses resulting from seasonal product failures and the associated danger of business collapse. Game theory is used in this comment to engage in a normative analysis, evaluating various legal regimes and providing policy insights into the best intellectual property protection for fashion design. This is in contrast to the article, which uses game theory to describe the current state of the fashion industry and examine the incentives and decision-making processes of designers under the current intellectual property regime.

## CONCLUSION

The United States Congress has not yet extended additional protection to fashion designers, leaving the American fashion industry vulnerable as fashion trends are rapidly copied worldwide. This situation has prompted strong reactions and outcry from the sector. While it is uncertain if the Innovative Design Protection and Piracy Prevention Act (IDPPPA) will advance in Congress, it is evident that fashion designers are suffering due to a significant loophole in American intellectual property law. This situation contrasts starkly with the protections offered by the governments of France, the United Kingdom, and other European countries.

This paper proposes a novel method for assessing the potential policy ramifications of the IDPPPA by using a game theory model. This model is built on fundamental economic assumptions, empirical data, and insights into the behaviors of fast-fashion retailers and fashion designers. It examines recent, well-publicized instances of fashion design piracy. According to the model, legal actions over copied designs are likely to persist as designers aim to secure the highest possible settlement amounts. While the fashion sector remains innovative, it is not performing at its best due to the current ambiguous regulatory environment. Aligning with the perspectives of Professors Hemphill and Suk, the model suggests that greater creativity can be achieved if fast-fashion retailers are incentivized to avoid exact replicas and instead focus on re-imagining and re-purposing original creations. This strategy encourages fast-fashion retailers to

take on the role of secondary designers, following closely behind the leading designers in the marketplace.

In light of this, Congress ought to think about passing the IDPPPA in order to improve the fashion industry's current situation. It's critical to understand that the IDPPPA is only one instrument available for enhancing and safeguarding unique fashion designs. It makes reference to the recently enacted Community design right in the European Union, which could shed light on the law's possible accomplishments and shortcomings, but other measures, such as the creation of a fashion guild and more representation, are equally important. These actions might encourage creativity and lead the fashion industry to a better place.

The absence of sufficient legal protection for fashion designers' creativity is stark when compared to other fields like engineering, where inventions often receive robust copyright and patent protections. The book "Zero to One" exemplifies the importance of protecting true innovation, highlighting how groundbreaking inventions typically receive strong legal protections. In industries like music and art, creators are afforded extensive protections for their innovations, while fashion designers often find themselves without adequate safeguards for their creativity, designs, and innovations.

Currently, copyright and trademark laws provide some level of protection for fashion designs and colors, but they do not offer comprehensive rights over any particular design or color. These laws are primarily focused on protecting creative works like music and art, rather than practical or useful products. Patent law, on the other hand, covers new inventions and useful ideas, leaving a significant gap in protection for fashion designers. This legal gap makes fashion designers particularly vulnerable.

The major concern motivating this paper is the rampant copying in fashion design, which has recently intensified. High-end designers face significant issues as their designs are frequently copied by low-end designers. High-profile clients, including renowned designers like Anna Sui, Diane Von Furstenberg, and Manish Malhotra, have filed lawsuits addressing this issue. Brands such as Forever 21, Zara, and H&M, often referred to as "fast fashion" firms, are known for quickly replicating original designs and selling them at low costs. These firms' ability to replicate designs rapidly and on a large scale makes it challenging for original designers to protect their creations.

In conclusion, while the fashion industry remains a hub of creativity and innovation, the current legal framework fails to provide sufficient protection for fashion designers against copying. The proposed IDPPPA, supported by a game theory analysis, offers a potential solution by encouraging fast-fashion retailers to innovate rather than replicate. However, achieving this ideal state requires not only legislative action but also broader initiatives to foster and protect creativity within the fashion industry.



---

## **The Evolving Role of Intellectual Property Frameworks in Innovation and Accessibility**

*P. Mohan<sup>1</sup>*

### **Abstract**

*This study takes a look at the complex ties between copyleft, copywrong, and copyright, especially in terms of intellectual property. It tries to figure out how these ideas shape the protection, sharing, and availability of creative works all over the world. Copyleft makes it possible for people to have free access to modify creative works. Meanwhile, copyright helps protect the rights of creators and encourages new inventions. Then we have copied wrong. This new idea points out some problems with traditional systems and how they can be misused. Through interesting talks and real-life stories, this study shows the challenges but also the cool opportunities that each framework offers. The main goal here is to make intellectual property fairer and more innovative for everyone.*

**Keywords:** Copyleft, Copyright, Copywrong, Intellectual Property, Creative Works

### **For Citation:**

---

**P. Mohan, 'The Evolving Role of Intellectual Property Frameworks in Innovation and Accessibility' (2024) Special Issue JSS Journal for Legal Studies and Research 88 <<https://www.jsslawcollege.in/jsslc-online-journal/>>.**

---



---

<sup>1</sup> Student - 4th-year B.com. LL. B(Hons)

VEL TECH DR. RR AND DR. SR UNIVERSITY, Veltech School of law, New Vellanur, Avadi, Tamil Nadu, 600062  
Email - mohanpalani108@gmail.com



## **Introduction**

If a diverse enough collection of the right type of substances is selected, valuable seeds will be created whenever the universe is ready for them. Similarly, the so-called intellectual property protected under the U.S. patent system is a valuable societal product that emerges, and may only emerge, from the interplay between the propertyless concept-producing activities of inventors, writers, scientific investigators, industrial research scientists, chemical and physical laboratory workers, and the universe of scientific and lay readers. Seeding this collective nursery are three dynamics that are associated with, but conceptually separate from, the legal institutions invested with the property rights in question: information about protected inventions emerges in the opportunities for the unrestricted interchange of scientific information and between competing commercial interests in the specialized marketplace. Both types of information are necessary to bring ideas to use and use to ideas. Ordinary market forces restrict access to the seed and maximize the productivity of its information exchange. My topic deals with the relationship between intellectual property and societal welfare and the circumstances in which interventions by the patent system within the markets for particular types of intellectual products or into the structures of the scientific research process may affect social welfare. Minimizing these political interventions is not the primary reason for taking such issues seriously, although that may be a happy by-product of articulating a solid intellectual property policy. Rather, an understanding of the dynamics of these markets and the property rights associated with them is essential a priori in order to provide a basis for reasoned, informed decisions regarding the allocation of public support for science, regarding legislative changes in the structures of our intellectual property systems, and regarding the recognition of judicial decisions in particular cases.<sup>2</sup> We must think straight about these issues. Granted that a long chain of events lies between a seat in Congress or a panel on the Federal Circuit and the discovery of some new physical or biological law or the development of a useful and practical invention is found. The leash on this chain is elusive and tenuous. Gunners do not work. If one chases the cat out of the room, there is no guarantee that it will return, and sitting there quietly and mouthing the right words will not recall it either. Only the powerless, ignorant, and innocent believe that

---

<sup>2</sup>*Merges, Robert P., Peter S. Menell, and Mark A. Lemley. Intellectual Property in the New Technological Age: 2020: Vol. 1, Perspectives, Cases, and Problems. Wolters Kluwer, 2020.*

the infirm universe must respond on demand to the contrary imperatives and desires of human policymakers. Only by recognizing the discrepancies between such misconceptions embodied in such policy efforts and the real complexity of the world can we hope to straighten the money's tail.

## **Background**

Intellectual property (IP) laws started from early rules like the Statute of Monopolies and the Statute of Anne. These laws help safeguard the creations of inventors, artists, and writers, making sure they get both recognition and financial benefits. You'll find important treaties like the TRIPS Agreement and WIPO Treaties in this mix. IP regulations are meant to encourage creativity while also thinking about fairness and access for all. In our digital world today, information spreads fast, and new tech brings its own sets of challenges and chances for IP systems. Finding a good balance between authors' rights, public needs, and business interests is still a big hurdle as laws continue to evolve.

## **Purpose of the Study**

This research aims to dig into how intellectual property (IP) frameworks affect innovation and access to creative works. It looks closely at copyleft, copyright, and copywrong to really understand what effects they have on protecting and sharing creativity around the globe. The study wants to find a sweet spot between paying creators fairly and really ensuring everyone can access these works. It will also tackle some ethical concerns regarding living things and indigenous knowledge while checking out how intellectual property plays into advancements in tech, environment, and health care. By the end, it hopes to suggest changes for more, and it will also tackle some ethical concerns regarding living things and indigenous knowledge while checking out how intellectual property plays into advancements in tech, environment, and health care. use and inclusive IP systems that support sustainable growth and benefit society overall.

## **1. Historical Evolution of Intellectual Property Frameworks**

Understanding the historical context of intellectual property (IP) is crucial for grasping its current role and future potential. Early developments in IP laws laid the groundwork for the modern frameworks we navigate today. Allow me to take you through the journey I embarked on

to uncover the roots and evolution of IP protection, highlighting key milestones and comparing frameworks across different eras.

### **1.1 Early developments in IP laws**

My exploration of the origins of IP laws began in the ancient civilizations of Greece and Rome. Even in these early societies, artisans and creators sought recognition and protection for their work. In ancient Greece, for example, chefs would protect their recipes as trade secrets, while in Rome; manufacturers marked their pottery to distinguish their products from others. These practices, though rudimentary, represent the nascent stages of IP protection, emphasizing the human desire to safeguard creative endeavors<sup>3</sup>. As I delved deeper, I discovered that the medieval guilds of Europe played a significant role in regulating inventions and techniques within trades. These guilds, essentially associations of artisans and merchants, controlled the quality and dissemination of specific skills and knowledge. They established rules to prevent unauthorized copying and maintained monopolies over particular crafts. The guild system, though restrictive by today's standards, set a precedent for more formalized IP protection by recognizing the value of unique skills and inventions.

### **1.2 Key Milestones in the Evolution of IP Frameworks**

The later phase in the development of IP law was marked by the conception of the formal statutes in the early modern age. An important juncture usually associated with the creation of the British limited company is the Statute of Monopolies of 1624. Sometimes when going through this statute, it dawns on me how this statute transformed the jurisprudence on patent law. It was among the earliest forms of legal agreements to award monopolies to inventors, thereby promoting invention.<sup>4</sup> Specifically, the Statute of Monopolies prohibited all kinds of monopolies other than those in the public interest and paved the way to England's first system of granting patents based on merit and novelty.

---

<sup>3</sup>**Heller, Michael A., and Rebecca S. Eisenberg.** "Can Patents Deter Innovation? The Cumulative Innovation Case," *Innovation Policy and the Economy*, vol. 3, 2003, pp. 17–40.

<sup>4</sup>**Lessig, Lawrence.** *Free Culture: How Big Media Uses Technology and the Law to Lock Down Culture and Control Creativity.* Penguin Books, 2004

The Statute of Anne, another significant development of the IP law, was enacted in 1710, also in England. This statute can indeed be regarded as the first copyright act. What struck me about the Statute of Anne was its dual focus: it wanted to safeguard the interests of authors and at the same time provide the public a chance to access the works made by those authors after a limited amount of time. As soon as the time elapsed, their work was made free to the public domain, meaning that knowledge and ideas were encouraged to be shared.<sup>5</sup>

### **1.3 Comparative Analysis across Eras**

Here I realize that as we moved to compare IP frameworks across different periods, one focused on the protection of inventors and creators, but the other was more balanced between the public on the one hand and innovators on the other. It is due to the evolution of societal values and improvements in the technology being used in the production of films. Originally, the IP laws presupposed the protection of certain exclusive rights in the creators to encourage innovations. However, this was soon realized to mean that IP protections could be overdone, and this was clipping the wings of creative individuals and denying citizens access to knowledge. Finally, there is the shift from the Statute of Monopolies and the Statute of Anne to current IP regimes.

Thus, in the modern world, IP laws are aimed at trying to achieve the best possible means of encouraging inventors while at the same time keeping the benefits accessible to the public.<sup>6</sup> For example, the modern norms of patent protection frequently incorporate rules for compulsory licensing that provide governments with a right to allow the usage of inventions under a patent for which the inventor gets no say in the matter under certain circumstances.

## **2. Understanding Intellectual Property & Tech Innovation**

Digging into the world of intellectual property (IP) has shown me how important frameworks are. Patents, in particular, have a huge impact on tech advancements. They give inventors an

---

<sup>5</sup>*Gowers, Simon. The Price of Nothing: The Case for Abolishing Intellectual Property. Oxford University Press, 2018*

<sup>6</sup>*Merges, Robert P. Justifying Intellectual Property, Harvard University Press, 2006. Discusses the justification for IP rights and their impact on innovation and societal welfare*

exclusive right, which really encourages people to invest in research and development. Let's explore how patents spark innovation.

## 2.1 How Patents Impact Tech Advancements

In my view, patents are a fantastic way to boost technological progress. They give inventors a temporary monopoly on their creations. This chance allows them to recover the expenses linked to R&D. So, this exclusivity is a big reason why individuals and companies put money into developing new technologies. Without patent guarantees, many might think twice about spending time and money on risky innovations. Nobody wants competitors to copy their hard work without any consequences.<sup>7</sup> When it comes to the internet, countless patented innovations helped create and develop it.<sup>8</sup> Companies like Cisco and IBM contributed technologies that formed the heart of today's internet systems. Those patents motivated other businesses to pour money into tech development, changing our lives forever in communication, shopping, and so much more. Now, think about CRISPR gene-editing technology. This amazing tool lets scientists edit genes in living organisms precisely. It's got the potential to treat genetic disorders, grow better crops, and maybe even help fight climate change.<sup>9</sup> The main patents for CRISPR are held by places like the Broad Institute and the University of California. Because of this protection, there's been loads of investment from both public resources and private companies—speeding up research and development like never before.

---

<sup>7</sup>Kinsella, N. Stephan. "Against Intellectual Property," *Journal of Libertarian Studies*, vol. 16, no. 2, 2002, pp. 1–53.

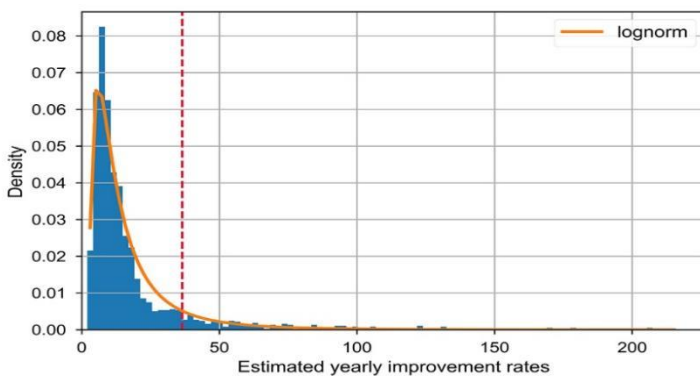
<sup>8</sup>Heller, Michael A and Rebecca S. Eisenberg, "Can Patents Deter Innovation? The Cumulative Innovation Case," *Innovation Policy and the Economy*, vol. 3, 2003, pp. 17–40.

<sup>9</sup>Elkin-Koren, Niva. "The Tragedy of the Public Domain: How Copyright Law Is Chilling Free Speech." *UCLA Law Review*, vol. 46, no. 1, 1998, pp. 65–97.

## 2.2 The Role of IP in Encouraging Research and Development

IP frameworks play an essential role in sparking research and development efforts. The promise of exclusive rights gives folks an important financial reason to be innovative. This kind of security is vital in areas where starting out takes a lot of resources and risks loom large.<sup>10</sup>

Let's look at the tech industry companies like Apple & Samsung invest heavily here. Thanks to solid patent protections, they not only secure their innovations but also gain a competitive edge over others in the market. As competition heats up due to patent protection, businesses are pushed to keep innovating—which means consumers get better products. Another cool point about patents: they help transfer technology and knowledge. When someone files a patent, it becomes public information that outlines all the details about that invention.



**Figure 1:** Technological Advancements and Patent Filings

## 3. Balancing Innovation and Accessibility

To achieve the best result in the sphere of intellectual property (IP), the balance between the ideas' exclusivity and availability is one of the crucial and most significant difficulties in the subject. While inspecting this topic even more, I realized that, yes, IP protections are extremely essential to stimulate new ideas, but at the same time they become a barrier to the utilization of those ideas. This issue is especially big in areas like healthcare and tech. The high prices of

---

<sup>10</sup>Boldrin, Michele, and David K. Levine, "The Case Against Intellectual Property." *University of Chicago Press*, 2010

patented medicines and technologies can limit access, particularly in developing countries. It makes the need for strategies that reward inventors while keeping things open to the public even more urgent. Let's dive into some challenges around accessing patented innovations, ways to balance IP protection with public access, and how open-source models help promote accessibility.

### **3.1. Challenges in ensuring access to patented innovations**

One big challenge we face is the cost. Patents give inventors special rights to their creations. This means they can charge prices based on how much they spend on research and development. But sometimes, these prices are just too high—especially for those in developing countries where healthcare budgets are tight. Many patients can't afford pricey treatments. The need for a balance here is so crucial. Inventors and companies want to make sure they recover their investments and make money so they can keep creating new things. But society also needs affordable access to these innovations to tackle serious health and tech issues. It's a tricky situation! The current IP system shows just how hard it can be when the push for new ideas sometimes steps over availability.<sup>11</sup>

### **3.2. Strategies for Balancing IP Protection with Public Access**

Some smart strategies have been devised and implemented to address challenges. One Effective Strategy? - Compulsory licensing. This lets governments allow production of a patented item without the patent owner's okay—usually, they pay a royalty fee in return. Governments often use compulsory licensing during public health emergencies to make sure people have access to necessary medicines. Another neat approach involves open-access models and patent pools; these ideas can lower costs and boost access to patented technologies. Take the Medicines Patent Pool (MPP), This makes them much more available in low- and middle-income countries. Also, open access models in academics and software development are great—they help spread

---

<sup>11</sup>*Miller, David.* "The Development of the Copyright Law in England," *Harvard Law Review*, vol. 14, no. 3, 1901, pp. 190–221.

knowledge wide. By ensuring research findings or software code are free to everyone, these models propel collaboration and speed up innovation while giving benefits to a larger audience.<sup>12</sup>

### **3.3. Role of Open-Source Models in Promoting Accessibility**

One of the coolest things I've seen is how open-source models play a role in boosting accessibility. Open-source projects—especially in software and biotech—show how working together can happen alongside traditional IP rules for better access. Just look at projects like Linux and Apache; they've changed the game by offering free platforms for innovation that anyone can join! These initiatives encourage people to pitch in, tweak things around, and use the software without high licensing fees. These strategies allow us to improve accessibility without losing what drives innovation forward. Meanwhile, seeing the growth of open-source approaches in software and biotech hints at a bright future where collaborative efforts exist alongside traditional IP setups. Together, they push greater accessibility while also driving technology forward. As I consider all of this information, it really strikes home: striking the correct balance between preserving original ideas and ensuring that everyone can profit from them requires consideration from a variety of perspectives.

## **4. Global IP Frameworks & International Agreements**

I came to learn that when one starts analyzing the property (IP), it is not just a local concern. No, it's much bigger. It must be noted that protecting and enforcing IP rights requires cooperation among countries because ideas and art have no boundaries. This global side of IP can be traced as affected by these significant international treaties and agreements, how globalization impacts IP laws, and seeking to harmonize the laws regulating I/P in different places. Let us look at each of these points in detail.

### **4.1 Major International IP Treaties & Agreements**

---

<sup>12</sup>*Reichman, Jerome H.* "Legal Hybrids Between the Patent and Copyright Paradigms." *Columbia Law Review*, vol. 114, no. 1, 2014, pp. 139–187.



To better comprehend the issue of IP protection worldwide, we need to start with the leading international conventions that establish the general framework for regulating the IP laws around the world. Among them, two major ones are known as Trade-Related Aspects of Intellectual Property Rights (TRIPS) and treaties administered by the World Intellectual Property Organization (WIPO).<sup>13</sup> Five-year/UR AGE came into force in 1995 under the WTO, calling the TRIPS Agreement more important. It establishes some guidelines to safeguard and assert on several forms of IP, such as patents and copyrights, trademarks, or trade secrets. Member countries must adopt these standards in their own laws. This creates a more consistent global picture for IP. TRIPS have deeply influenced national IP laws, pushing countries to improve their systems to meet their requirements.

WIPO also manages several key treaties that guide global IP protection. Two important ones are the Berne Convention for literary and artistic works and the Paris Convention for industrial property. These treaties set principles like national treatment—meaning foreign citizens get treated like local ones in terms of protection—and the right of priority, which helps inventors claim priority in several countries based on an early filing. By following these treaties, countries agree to protect IP rights fairly.

#### **4.2. Impact of Globalization on IP Laws**

Globalization has really changed IP laws—some things are better while others are worse. First off, globalization helps harmonize IP laws more. Countries dive into the global economy; thus, there's a stronger need for stable and consistent protections to make international trade and investment easier. This wave of change pushes nations to match their laws with main standards from agreements like TRIPS or WIPO treaties. But there's a flip side too. There are large gaps between rich and poor countries regarding IP issues. Meanwhile, developing countries often find tough protections can block their efforts to grow economically and advance technology by accessing what's already available. This gap can spark disagreements during talks about fairness in global IP policies.

---

<sup>13</sup>*O'Rourke, Michael. "Intellectual Property and the Creative Commons: An Overview of the System." Intellectual Property Quarterly, vol. 1, 2016, pp. 45–78.*

### **4.3. Harmonization of IP Laws across Different Jurisdictions**

There are ongoing efforts to align IP laws across various places to create a balanced global system that encourages innovation yet respects local differences. Harmonization means making national laws fit better with international standards so there aren't so many mixed messages or clashes from different legal setups. International treaties and agreements play a big role here. By signing up for something like TRIPS or WIPO-led treaties, nations pledge to put common rules into their own legal systems. This plan makes the environment clearer and safer for international trade and investment. This idea acknowledges that countries at different stages need various levels of flexibility when applying standards in IP law. Developing nations might take this chance to shape their laws better according to what suits them while still sticking to larger international rules.<sup>14</sup>

## **5. IP in the Digital Age**

The digital age has changed a lot about intellectual property (IP). There are both challenges and new chances. As I looked into this, I saw how technologies like the internet and artificial intelligence (AI) are changing how we view and take care of IP. The quick spread of digital content means we need new ways to protect it. Let's dive into how digital technologies influence IP, the problems from digital piracy, and other IP issues we face in today's economy.<sup>15</sup>

### **5.1. Influence of Digital Technologies on IP Frameworks**

Digital technology is unique only in the speed and range at which content can be shared. The current world of viral networking is characterized by frantic sharing and sharing alike, and traditional IP management strategies rely on physical copies and legal frameworks. Consider this: In a couple of minutes, an electronic record can be copied millions of times on the other side of the world with ease. As a result, protecting and enforcing IP rights becomes extremely difficult or nearly impossible. Artificial intelligence (AI), which is ever more difficult to

---

<sup>14</sup>*Hughes, James W.* "The Role of IP in Advancing Technology: Historical and Modern Perspectives." *Technology and Law Journal*, vol. 9, no. 2, 2020, pp. 112–145.

<sup>15</sup>*Samuelson, Pamela.* "Intellectual Property Law in the Digital Age." *Law and Contemporary Problems*, vol. 75, no. 1, 2012, pp. 73–91.

understand, makes intellectual property (IP) even more difficult to protect, of these marvels is.<sup>16</sup> Nevertheless, improvements in the spheres of technology and legislation cannot eliminate piracy as a phenomenon.

## 5.2. Challenges Posed by Digital Piracy and Counterfeiting

This hurts creativity and innovation too. Even though technology and laws have improved, piracy is still everywhere. To fight against piracy, several solutions have been tried out. Digital rights management (DRM) tools help control how digital content is used. They can limit the copying or sharing of digital files to make sure creators' rights are respected. Still, DRM isn't perfect; some clever individuals find ways around it. This leads to ongoing battles between pirates and those protecting their rights.<sup>17</sup> Laws play a big part in fighting piracy too. For example, the Digital Millennium Copyright Act (DMCA) in the U.S. gives creators ways to ask for removed infringing content from websites. New technologies like AI and Block-chain are causing fresh problems for intellectual property in our digital world. With AI blurring lines of human authorship, it makes us rethink how we approach IP laws for non-human creators. Block-chain—which is famous for crypto-currencies—might help us manage IP by offering clear records of rights and transactions through smart contracts. However, figuring out how effective this will be legally is still a growing concern, along with regulatory hurdles.<sup>18</sup>

## 6. Economic and Social Impacts of IP Frameworks

Intellectual property (IP) frameworks are super important. They shape the economy and the way people in society connect with each other. When I looked into this topic, I noticed something interesting. Strong IP protections can really boost economic growth and spark innovation. But wait. They also bring along some tricky social effects. By digging into how IP protections help

---

<sup>16</sup>Gordon, Wendy J. "An Inquiry into the Merits of Copyright: The Future of the Copyright System in the Digital Age." *Columbia Law Review*, vol. 108, no. 7, 2008, pp. 1917–1965.

<sup>17</sup>Rogers, Craig J. "Blockchain Technology and Intellectual Property Rights." *Harvard Journal of Law & Technology*, vol. 31, no. 2, 2018, pp. 313–332.

<sup>18</sup>Lessig, Lawrence. *The Future of Ideas: The Fate of the Commons in a Connected World*. Random House, 2001.

the economy, impact creativity & innovation, and influence start-ups, we can see just how big of a deal these frameworks are.

### **6.1. Economic Benefits of Strong IP Protections**

So, strong IP protections matter a lot for getting the economy moving. These protections give exclusive rights to inventors and creators, which encourages spending on research and development (R&D). Because of this, new products, services, and technologies pop up, pushing economic growth forward. Take the pharmaceutical industry, for example; it really stands on patents to explain why making new drugs costs so much money. Without those financial safety nets from IP protections, companies might shy away from investing in such risky ventures.

But that's not all. Strong IP protections also draw foreign investment (FDI). Countries with solid IP laws feel like safer spots for investors. Why? This is because they offer a reliable environment where creators can secure their returns on intellectual property. When investors pour money in, it creates jobs and helps technology spread around. Some countries have tightened their IP laws and seen a nice boost in investments in high-tech and creative sectors. This helps their economy become more diverse and stronger.<sup>19</sup>

### **6.2. Social Implications of IP Laws on Creativity and Innovation**

The social side of IP laws is pretty complex; it has its ups and downs. On one side, good IP laws can really push creativity and innovation forward by giving creators the rewards they deserve. By making sure creators benefit from their work, these laws encourage them to keep being creative. For instance, copyright protections motivate authors, musicians, and artists to create new things since they know they control how their work gets shared and sold.

If IP laws get too strict or stick around too long, they can actually block creativity and innovation! When protections are overly tough, competition might take a hit, and access to knowledge could shrink. This makes it tough for new innovators who want to build on previous ideas. In tech, for example, if patents stretch too wide, fresh companies might struggle to enter

---

<sup>19</sup>O'Reilly, Tim. *What's the Future and Why We Need It*. Harper Business, 2017.

the market. Less competition can slow down tech advancements. Finding a balance with IP protections is super important to support both creators' rights and society's needs.

## **7. Criticism and Reforms of Intellectual Property Systems**

As I explored the world of intellectual property (IP), I found many critiques about the current IP systems. There are several proposed changes too. These critiques point out some big issues, like over-protection, trouble enforcing rights, and inequalities. To really tackle these problems, we need smart reforms. This means making it easier to get patents, improving access for everyone, and boosting cooperation internationally. The future of IP will depend on how well it can adapt to fast-changing technology while still holding onto its core values.

### **7.1. Major Criticisms of Current IP Frameworks**

A major problem with today's IP systems is over-protection. Companies sometimes use “ever-greening.” This is where they make tiny changes to existing drugs just to extend their patent life. Because of this practice, cheaper generic drugs can take a long time to hit the market. So, many people struggle to get the medicines they really need. This isn't just bad for competition; it places a heavy load on healthcare systems and everyday consumers.

Then there are issues with enforcing IP rights. Even though there are laws in place, enforcing them can be pretty tricky—especially online, where piracy and counterfeiting are everywhere! Digital stuff like music, movies, and software is especially at risk of being shared without permission. This hurts creators and those who own the rights to these works. Plus, it shakes up the overall reliability of IP systems. We definitely need effective ways to enforce these rights so that people trust the protections in place.<sup>20</sup> Also concerning are the inequalities built into current IP systems. Wealthy countries usually have way better legal and tech setups—and they gain more benefits from IP protections than developing countries do. This only deepens existing global inequalities. For instance, high costs for patented medicines make it hard for poorer countries to tackle public health issues effectively.

---

<sup>20</sup>Nariyal, Anil. “Intellectual Property and Indigenous Knowledge: Ethical and Legal Issues,” *International Journal of Cultural Property*, vol. 10, no. 3, 2003, pp. 373–386.

## **7.2. Proposed Reforms to Address IP-Related Challenges**

One idea is cutting down on patent thickets those complicated webs of overlapping patents that stifle creativity. Simplifying patent processes and making them easier to navigate would likely create a friendlier environment for innovation and competition! Streamlining applications and halting overly broad patents could really help. Another important reform is focusing on public access to works protected by IP. Governments could use things like compulsory licensing when there's a real need for generic versions of patented drugs. Also, opening up scientific research can help spread vital information and innovations far and wide! This would encourage teamwork and push scientific progress further along. Better international cooperation is vital too. Aligning laws and enforcement methods across countries can lead to a fairer global IP system. International discourse on intellectual property matters is greatly aided by organizations such as the World Intellectual Property Organization (WIPO). We can more successfully resolve inequities and open the door for a more inclusive approach to intellectual property protection by stepping up these international efforts.<sup>21</sup>

## **7.3. The Future of Intellectual Property in Our Changing World**

With technology changing so fast, our IP frameworks need to keep up too! New developments like artificial intelligence (AI), blockchain, and IoT bring both exciting chances and tricky challenges for IP systems. It's essential to adapt while still holding onto what makes IP valuable.

## **8. Ethical Considerations in Intellectual Property**

When we talk about intellectual property (IP) law, there are many ethical issues. It's especially tricky with things like life forms and traditional knowledge. These problems often involve who owns what, how to respect cultures, and balancing business needs with what's good for everyone.

---

<sup>21</sup>**Potteiger, Matthew.** "The Ethics of Intellectual Property in the Digital Age," *The Journal of Information Ethics*, vol. 18, no. 1, 2009, pp. 30–42.

### **8.1. Ethical Dilemmas in Patenting Life Forms and Genetic Material:**

Patenting life forms and genetic materials raises big questions. Think about it: when companies patent genetically modified organisms (GMOs) or specific human genes, it gets complicated. This can lead to exploitation. Sometimes, patents can make it hard for people to access important biological resources like seeds or genes needed for medical advances. This kind of restricted access can slow down innovation. It's unfair if only a few people benefit while others miss out.

Indigenous communities have so much traditional knowledge that has been shared over generations. Protecting this knowledge using IP laws is tough. We need to honor and preserve their cultural heritage, but commercial interests often try to profit from it without permission. Bio-piracy is one serious issue here—where companies use indigenous knowledge without sharing the benefits.<sup>22</sup> We need policies that promote growth and creativity without leaving others behind. Maintaining balance requires ongoing adjustments and a focus on social responsibility towards all—not just the wealthy few. We can only make progress through fair negotiations that ensure respect for human rights, promote equal opportunities, and create policies that truly serve the public interest.

## **9. Conclusion**

In conclusion, it remains amazing to comprehend that copyleft, copyright, and copywrong function as main pillars that define possibilities for contemporary creativity and innovative development. It identifies features peculiar to each framework and how they determine ways creative works are protected, disseminated, and made available internationally. Exploring the issues with the suppositions of copyright and copyleft, the name of copywrong embodies the necessity of dealing with pathologies in traditional IP structures. Maintaining a balance between security and the effective use of services is still a significant problem, for example, in such sectors as medicine and IT. Measures that were proposed like the compulsory licensing and

---

<sup>22</sup>**Drahos, Peter.** “The Globalization of Intellectual Property Rights: The Role of the WTO.” *Journal of World Trade*, vol. 36, no. 4, 2002, pp. 729–747.

open-source models hold a lot of potential to solve this balance, that is, to increase the availability at the same time without hurting the innovation. Internationalization of IP, as provided by the TRIPS and WIPO agreements, is essential to standardizing the provided laws, but at the same time, globalism is not without benefits and disadvantages. Thus, new problems, such as digital piracy and the effects of AI, impact IP management as digital technologies advance. To sum up, solving these challenges entails a continuous improvement and updating of IP systems that are to encourage innovation and benefit the society at the same time. Adoption of inclusive and equitable policies regarding IP will be crucial if future steady growth and value of those assets for all participants in the creative and technological advancements is to be realized.





**JSS Law College**  
Autonomous  
Kuvempunagar, Mysuru

*JSS Journal for Legal Studies and Research*

*SPECIAL ISSUE (2024) [ISSN 2321-4171]*

---

# **Balancing Innovation and Protection: Copyleft vs. Copyright in AI Development**

**Shuchi Srivastava<sup>1</sup>**

## **Abstract**

*This research investigates the interaction of copyleft and traditional copyright regimes in AI development, specifically their impact on innovation, collaboration, and intellectual property protection. It demonstrates how copyleft promotes a collaborative, open-source environment that accelerates innovation by permitting free modification and sharing of AI technologies, encouraging community-driven improvements. Traditional copyright, on the other hand, provides strong intellectual property protection for authors, motivating investment and securing exclusive ideas while potentially limiting collaboration due to restrictive license terms. The paper assesses the advantages and disadvantages of each approach, arguing that hybrid models that incorporate elements of both frameworks could effectively balance the need for open collaboration with the protection of commercial interests, promoting a dynamic and equitable AI development ecosystem.*

**Keywords:** *Intellectual property, copyright, copyleft, artificial intelligence*



---

<sup>1</sup>Centre of BioMedical Research (CBMR): an autonomous Centre of the Government of Uttar Pradesh  
E-mail: [shuchisri08@gmail.com](mailto:shuchisri08@gmail.com)

## For Citation:

---

Shuchi Srivastava, 'Balancing Innovation and Protection: Copyleft vs. Copyright in AI Development' (2024) Special Issue JSS Journal for Legal Studies and Research 105 <<https://www.jsslawcollege.in/jsslc-online-journal/>>.

---

### Introduction

Artificial intelligence (AI) has quickly evolved into a disruptive force in technology, influencing industries ranging from healthcare to entertainment. AI can generate, manage, and utilize intellectual property assets, which raises significant legal and ethical concerns about ownership, copyright infringement and data protection. On the contrary, AI may help automate and streamline IP asset management, aid in the search and analysis of existing IP assets, improve IP enforcement and generate new business models.

A fundamental challenge about AI copyright in India is whether computer-authored works meet the originality requirement of Section 13 of the Copyright Act. Courts have regarded originality as human-generated intellectual effort. However, training neural networks requires significant human effort in terms of data creation, architecture design, and so on. Developers think that this endeavor brings originality to works. Also, the development of such system requires immense knowledge from various sources which may be subject to copyright.

So development of Artificial Intelligence system raises serious concerns about the preservation and sharing of intellectual property. Copyright and copyleft are the two fundamental mechanisms for intellectual property management, with different implications for innovation and protection.

#### 1.2 Objective of Paper

Explore the impact of copyright and copyleft on AI development.

Compares the advantages and disadvantages of each approach.

Suggest approaches to balance AI innovation with protection.

## 1. Copyright in AI

Copyright is a type of intellectual property that protects original works of authorship as soon as the author puts the work into a tangible form of representation. In copyright law, there are numerous sorts of works, such as paintings, pictures, illustrations, musical compositions, sound recordings, computer programs, novels, poetry, blog posts, movies, architectural works, plays, and much more!

Creating works with artificial intelligence may have significant ramifications for copyright law. Traditionally, the ownership of copyright in computer-generated works was not an issue because the program, like a pen and paper, served as a tool to aid in the creative process. Creative works are eligible for copyright protection if they are original, and most definitions of originality require a human author.

AI systems work with algorithms and to train these algorithms, they require large sets of data. This data acts as fuel for the system and helps it in delivering output.

This data includes copyrighted material like text, images, music which may raise infringement issues. AI technologies can be used to recreate previously copyrighted works. The algorithms may analyze and produce content that closely resembles copyrighted works, raising concerns about the legality and ethical implications of such replication.

### 2.2 Advantages of Copyright in AI Development

- 1) **Protects Intellectual Property:** AI models usually demand massive amounts of data for their training processes. If copyrighted content is used without legal license during this process, it may result in copyright infringement lawsuits.
- 2) **Authenticated Output:** Authenticated output involves ensuring that the results or content produced by AI systems can be verified as coming from a specific AI system or source. This can include the AI's algorithms, source code, or the generated content itself.
- 3) **Prevention of Unauthorized use:** In the field of AI development, avoiding unlawful use is critical for safeguarding intellectual property and guaranteeing that creators and developers retain control over their ideas. Unauthorized use is defined as any unauthorized access, duplication, distribution, or alteration of

copyrighted information, including AI-generated content and underlying technology.

- 4) **Monetization:** Copyright is critical to the commercialization of AI development since it protects, facilitates licensing agreements, strengthens market position, and supports diverse business models. It ensures that AI developers have control over how their technology and material are used, generate cash through licensing and subscriptions, and solve issues such as unauthorized usage and worldwide markets. By efficiently exploiting copyright during the development of AI systems, AI developers can maximize the financial potential of their ideas while also ensuring long-term success in a competitive landscape.
- 5) **Supports Quality Assurance:** Copyright protection allows authors to regulate alterations and derivative works in their AI technologies, ensuring quality and consistency. This can lead to more dependable and successful applications of the technology.

### **2.3 Disadvantages**

- 1) **Ethical Implications:** AI systems may unknowingly transmit biases found in training data, raising serious ethical implications. Copyright law may need to take into account the ethical implications of AI-generated work.
- 2) **Restricts Access and Collaboration:** Copyright can prevent the sharing and modification of AI technologies, possibly impeding collaborative innovation. Restricting how AI tools and code can be used or changed may hinder the development of new developments and limit prospects for collaborative issue solving.
- 3) **Barriers for smaller developers:** High license rates or complex copyright conditions can be prohibitively expensive for smaller developers and startups, limiting their ability to use and expand on current technologies. This may hinder innovation and restrict competition in the AI business
- 4) **Restricted innovation:** Integration is hampered by the legal and technological difficulties of combining copyrighted AI technologies with other systems or proprietary programming. This complicates the development of hybrid or integrated solutions, perhaps leading to fragmented advancement in the field.

## 2. Copyleft in AI

A crucial component of the copyleft notion is that a work made accessible under a copyleft license may be used and modified, but the resulting derivative works must be made available for others to use and alter in the same manner. This means one can build upon a piece of copyleft software, for example, but the resulting derivative work must be made available under the same copyleft circumstances.

AI's mechanism is not to copy what it has learned, but to generalize solutions from training data in order to complete tasks without clear instructions on how to do so. Even if an AI tool does not explicitly and deliberately copy solutions from the training data, it is easy to see how an AI tool could potentially offer a solution to a problem that is substantially the same as a solution in its training data, for example if the problems are the same, especially given the relative limitations on vocabulary and syntax when compared to 'human' language.

### 3.2 Advantages of Copyleft in AI Development

- 1) **Enhanced Collaboration:** Copyleft promotes open access to source code and encourages modification and redistribution of AI technologies, fostering a dynamic and inclusive environment where developers from diverse backgrounds can contribute, share knowledge, and build on each other's work. By removing proprietary barriers, copyleft facilitates faster innovation, cross-organizational partnerships, and more robust community engagement.
- 2) **Possibility of new innovations:** Copyleft licensing greatly increases the prospect of new innovations in AI development by ensuring that AI technologies and derivative works are freely accessible and editable. This open architecture promotes a collaborative environment in which developers and researchers can freely experiment with and improve existing AI systems, resulting in rapid improvements and new applications. Copyleft enables different contributions and cross-pollination of ideas by removing limits on how AI technology can be used and modified, hence accelerating the discovery of innovative solutions and new functionality.
- 3) **Supports Ethical Consideration:** Copyleft adheres to the principles of free software and encourages ethical practices such as information sharing, user empowerment, and

community building. They put the interests of consumers and developers ahead of proprietary constraints.

- 4) **Assures Long-Term Availability:** Copyleft assures that AI technologies remain free and open for the long term, preventing them from becoming proprietary and inaccessible. This dedication to openness helps to conserve technology for future usage and development.
- 5) **Supports Continuous Improvement:** Copyleft licenses promote the continuing progress of AI systems by allowing anybody to change and upgrade the code. This iterative procedure can boost creativity and result in more robust and feature-rich AI solutions.

### **3.3 Disadvantages**

- 1) **Difficult to Monetize:** Monetizing AI work using copyleft license might be difficult due to numerous problems inherent in the open-source paradigm. Because copyleft demands that derivative works be open and publicly available, developers may struggle to charge for direct access to source code or functionality that are freely provided. This limitation may limit prospects for traditional income streams like license fees or subscription models. Furthermore, the open nature of copyleft projects allows competitors to quickly imitate and sell identical solutions, thus lowering the market value of the original ideas. The issue extends to attracting money or investment, as investors may be skeptical about the revenue prospects under a scenario in which technology is freely shared and updated.
- 2) **Licensing Difficulties:** Licensing challenges with copyleft in AI development arise from several key issues. Copyleft requires that any derivative work be open-source, which can complicate the integration of copyleft AI technologies with proprietary systems, creating legal and technical hurdles. Ensuring compliance with these licensing terms can be challenging, especially in large projects with many contributors, and tracking adherence to copyleft requirements can be resource-intensive.

Furthermore, commercial partners may be hesitant to participate in copyleft projects for fear of having to disclose their own proprietary code or the complexity of

combining open-source and proprietary features. Ambiguities in the legal language of copyleft licenses might complicate licensing and marketing.

- 3) **Inconsistent Quality Control:** Because copyleft licenses allow for modification and redistribution, AI systems' quality and reliability may vary. A lack of continuous quality control might cause problems with performance and security in derivative works.

### **3. How do the copyleft and copyright regimes affect AI development?**

AI tools work because they have been trained on examples; this is the idea of machine learning, which states that an AI may learn from training data and generalize the answers or solutions to problems. In this method, an AI tool can do a task without explicitly defining how it should be carried out. For example, an AI tool can be trained to recognise photographs of animals, and if properly trained, it will be able to recognize an animal in an image it has never seen before since it can generalize what it has learnt from the training images. Many of the current legal challenges surrounding AI involve the usage of copyrighted information for training an AI tool.

#### **4.1 Strategies for Balancing Innovation and Protection**

Balancing creativity and protection in AI development necessitates strategic methods that align the benefits of copyright and copyleft while encouraging collaboration and innovation.

##### **1) Hybrid Approach:**

A hybrid licensing strategy combines innovation and protection by incorporating features of both copyright and copyleft. This technique makes essential AI technology available under copyleft licenses, which encourage open access, modification, and collaboration, resulting in widespread innovation and community contributions. Simultaneously, extra features or commercial services are made available under proprietary licenses, giving developers chances to monetize while preserving some control over how advanced functionalities are used. This strategy allows developers to profit from open-source contributions while protecting proprietary elements, encouraging both collaborative innovation and money generating.

##### **2) Ethical Framework:**

In AI development, ethical principles govern the usage of copyleft and copyright to balance innovation and protection. Copyleft, which promotes open access and software change, is consistent with utilitarianism in that it maximizes social benefits while also encouraging collaborative and inclusive innovation. It also contributes to social contract theory by encouraging mutual benefit between creators and users. Copyright, on the other hand, preserves authors' rights by assuring appropriate pay and respect for intellectual property, reflecting both deontological and rights-based ethical principles. However, it must be controlled to prevent impeding access and innovation, while fulfilling principles of justice and the ethics of care by ensuring that protection measures do not unfairly penalize any group or limit equitable technological advancement.

### **3) Community Involvement:**

When using copyright and copyleft tactics in AI development, community involvement is critical for balancing innovation and protection. Engaging the community ensures that diverse opinions are acknowledged, resulting in more equitable and successful ways. Copyleft can encourage a collaborative atmosphere in which AI technology are publicly shared and enhanced, in accordance with fairness and inclusivity principles. This community input helps to improve technologies while keeping transparency and accessibility. In contrast, when it comes to copyright, incorporating the community can help ensure that protections are applied in ways that respect authors' rights while not limiting innovation. By actively soliciting feedback from stakeholders, developers can create balanced policies that safeguard intellectual property while encouraging responsible AI technology diffusion and use. This strategy promotes harmony.

### **4) Licensing Flexibility:**

Licensing flexibility is critical for balancing innovation and protection in AI development when copyright and copyleft are used. Copyleft, flexible licensing arrangements, such as permissive or share-alike licenses, enable developers to freely build on and disseminate AI technologies while assuring that derivative works are equally available. This promotes collaborative innovation and widespread adoption while upholding a common spirit of openness and transparency. Copyright, on the other hand, can be modified through



flexible licensing agreements to safeguard authors' intellectual property while allowing for different levels of access and use. For example, providing tiered licenses or non-exclusive rights can preserve proprietary inventions while allowing third parties to use and develop on the technology under agreed-upon terms. Using flexible licensing, developers can build a balanced architecture that supports continuous

#### **4. Conclusion:**

Balancing innovation and protection in AI development entails carefully understanding the benefits and limitations of copyright and copyleft systems. Copyright provides strong intellectual property protection by motivating investment and conserving unique innovations, but it can also limit access and inhibit collaborative progress. In contrast, copyleft encourages openness and community-driven innovation by requiring derivative works to be free and accessible, but it may limit economic potential and impede integration with private technologies. A hybrid approach, which combines flexible licensing options with tiered access, can address these concerns, providing a balanced solution that promotes both rapid technical innovation and equitable protection of creators' rights. By including stakeholders in the formulation of ethical norms and flexible licensing arrangements, the AI development ecosystem may thrive, fostering collaboration while protecting intellectual property and social values.



---

## **Remake Rights under Copyright**

Urvi Nama<sup>1</sup>

### **ABSTRACT**

*This research paper examines copyright laws concerning the remakes of music and movies. It highlights the necessity for legal permission from copyright owners to create new versions of existing works. By providing legal protection to creators, copyright laws encourage creativity and innovation; ensuring creators have the exclusive right to monetize their work. The paper explores recent developments in copyright laws related to adaptation, licensing, and assignment, emphasizing their dynamic nature. It also addresses the fair use doctrine, which balances societal benefits with the economic interests of creators. Without copyright protection, creators might be discouraged from producing new works, as unpermitted remakes could undermine their earnings. The paper uses various precedents from statutes and court decisions to elucidate these concepts, helping readers understand the complexities of copyright laws in the context of remakes.*

**Key words:** copyright laws, remake, protection, adaptation, and new version.

***For Citation:***

---

Urvi Nama, 'Remake Rights under Copyright' (2024) Special Issue JSS Journal for Legal Studies and Research 114-128 <<https://www.jsslawcollege.in/jsslc-online-journal/>>.

---



---

<sup>1</sup> Student of BA.LLB  
Email: [namaurvi@gmail.com](mailto:namaurvi@gmail.com)

## INTRODUCTION

In the Indian entertainment sector, remaking or adapting films and songs has become a popular practice, with many films and songs being developed from pre-existing works. However, because they entail the rights of original copyright owners, licensing regulations, moral rights of artists, and potential infringement concerns, the legal ramifications of copyright in remakes of films and music are complicated. The legal framework governing the rights and obligations of parties involved in the remake or adaptation of films and music is provided by Indian copyright law. To ensure compliance with Indian copyright law, it is crucial for filmmakers, music composers, producers, and other stakeholders to have an in-depth understanding of the legal elements of copyright in remakes of films and music.

Under Indian copyright law, the copyright owner has the exclusive right to make adaptations and translations of their work. Therefore, anyone who wishes to create a new work based on an existing work must obtain the permission of the copyright owner. If the copyright owner grants permission, they may do so on terms and conditions that they see fit, including payment of a royalty or license fee.

It is important to note that even if the new work is based on an existing work, it must be original in its own right and not a mere copy of the original work. If the new work is found to be substantially similar to the original work, it may infringe on the copyright owner's rights.

In India, remake rights are governed by the Copyright Act of 1957, which provides the copyright owner with the exclusive right to make adaptations and translations of their work. Anyone who wishes to create a new work based on an existing work must obtain the permission of the copyright owner, and the new work must be original in its own right

Section 14 of the Indian Copyright Act confers certain exclusive rights to the copyright owner, including the right to reproduce, publish, communicate to the public, and adapt the work. Adaptation includes the making of any new work based on the original work, such as translation, abridgment, and transformation of a work into a different medium or form.

The Indian Copyright Act does not define the terms "remake" or "adaptation" in relation to remakes and adaptations. The Act stipulates, however, that the ability to modify a work is the sole property of the copyright holder. This means that, unless an exception or restriction exists,

*Urvi Nama*

remaking or adapting a movie or piece of music necessitates securing a licence from the original copyright holder.

In addition to the exclusive rights of the copyright owner, the Indian Copyright Act also provides for certain exceptions and limitations to copyright, such as fair use, which allows for the use of copyrighted works for purposes such as criticism, review, news reporting, teaching, and research, subject to certain conditions. However, the scope of fair use in the context of remakes and adaptations is limited, as the Act does not provide a specific exception for using.

***REMAKE***

In copyright law, a remake refers to a new version or adaptation of an original work, such as a movie or a song.

A remake can take many forms, such as a new movie based on an existing book, a cover version of an existing song, or a new version of a painting. The key feature of a remake is that it is based on an existing work, and therefore, the copyright of the original work needs to be respected.

To create a remake of a copyrighted work in India, you would need to obtain permission from the copyright owner or their authorized representative. This can be done through a licensing agreement, where the copyright owner grants you permission to create the remake under specific terms and conditions. Alternatively, the copyright owner may assign their copyright to another person or entity, which would then have the exclusive right to create the remake.

In India, the Copyright Act, 1957 does not specifically mention “remake rights”. However, the right to make adaptations or translations of a copyrighted work is recognized under Section 14(d) of the Act.

Therefore, the copyright owner of the original work would have the exclusive right to grant permission for the creation of a remake or adaptation of their work. This means that if you want to create a remake of a copyrighted work, such as a movie or a song, you would need to obtain permission from the copyright owner or their authorized representative.

In some cases, the copyright owner may choose to assign their copyright to another person or entity, such as a film production company, who would then have the exclusive right to create the remake. The assignment of copyright would need to be done through a legal agreement, such as an assignment deed, which would transfer all of the rights of the copyright owner to the assignee.

**Yash Raj Films Pvt. Ltd., vs. Sri Sai Ganesh Productions & Ors <sup>2</sup>**

In a lawsuit filed against the defendants, Yash Raj Films Pvt. Ltd. (YRF) claimed that they had violated its copyright in the movie "Befikre" by creating the Telugu movie "Tholi Prema." The plot, characters, and music from "Befikre" were allegedly stolen by the defendants without YRF's consent. The Delhi High Court, in its judgment, held that the defendants had indeed infringed YRF's copyright in "Befikre." The court noted that the defendants had copied various elements of the film, including the basic plot, character sketches, and musical score, and had not made any significant changes to distinguish their film from YRF's original work.

The court further determined that YRF was entitled to damages for the copyright infringement and that the defendants' actions violated YRF's moral rights as the author of the original work.

**Thiagarajan Kumararaja v. Capital Film Works (India) Pvt. Ltd. & Anr<sup>3</sup>**

The complainant in this lawsuit, Thiagarajan Kumararaja, worked as the director and screenwriter of the movie "Super Deluxe." The producer and distributor of the movie, the defendants, were accused by the plaintiff of violating his copyright by making alterations to the movie without his consent. Additionally, the plaintiff claimed that the defendants failed to properly credit him for his work.

In its ruling, the Supreme Court of India determined that the plaintiff was the rightful owner of the copyright of the film's screenplay and lines and that the defendants' unauthorized changes to the movie violated his rights. The plaintiff had the legal authority to claim authorship of the work, and the defendants had failed to provide him proper credits.

The court further held that the defendants' conduct amounted to a breach of the terms of the agreement between the parties, and that the plaintiff was entitled to damages for the infringement of his copyright.

Overall, the Thiagarajan Kumararaja case is significant as it reaffirms the importance of copyright protection for authors and creators in India, and establishes important principles regarding the ownership and infringement of copyright in the context of the film industry.

---

<sup>2</sup> Yash Raj Films Pvt. Ltd. v. Sri Sai Ganesh Productions & Ors., (2019) SCC Online Del 8721 (India)

<sup>3</sup> Thiagarajan Kumararaja v. Capital Film Works (India) Pvt. Ltd. & Anr., (2019) 5 SCC 762 (India).

### ***TYPES OF REMAKES***

A remake of a copyrighted work can be done in various ways, depending on the type of work and the purpose of the remake. Here are some common ways in which remakes are created:

**Film remakes:** In the case of a movie, a remake can be created by using the same story or plotline as the original, but with different actors, settings, and other creative elements. Alternatively, the remake can be a modern retelling of the original story, with updated themes and settings.

**Song remakes:** A song remake can be done by creating a new version of the original song with different instruments, arrangements, or vocal styles. This can include cover versions of the original song or remixes that add new elements to the original recording.

**Literary remakes:** A literary remake can be done by adapting an existing story or novel into a new format, such as a screenplay for a movie or a stage play. This can involve making changes to the original story to suit the new medium, such as adding or removing characters or changing the plotline.

**Art remakes:** In the case of a painting or other visual artwork, a remake can be done by creating a new version of the original work with different colors, textures, or styles. This can include copying the original work with minor changes or creating a new interpretation of the original artwork.

However, it is important to note that not all uses of copyrighted works qualify as a “remake” under copyright law. In order to create a remake of a copyrighted work, the creator must typically obtain permission from the copyright owner or have a license to use the original work. Additionally, the remake must be sufficiently different from the original work to avoid infringing on the copyright owner’s exclusive rights, such as the right to create derivative works.

### ***OWNERSHIP***

In a movie or song remake, the ownership of the new version will depend on the specific agreements and arrangements involved in the production of the remake. Typically, the ownership of the original work remains with the original copyright owner, while the ownership of the new version will be determined by the specific agreements between the parties involved.

Ownership in a movie or a song remake can be divided into several categories:

Copyright owner of the original work: The creator or copyright owner of the original work will retain ownership of the underlying copyright in the original work. Therefore, permission from the copyright owner is required to create a remake.

Producers or studios: In the case of a movie or a song remake, the producers or studios that are financing the remake may acquire ownership rights to the new version, such as distribution and marketing rights.

Screenwriters or songwriters: In the case of a movie or a song remake, the screenwriters or songwriters who are adapting the original work into a new version may have certain rights to the new version, such as the right to control the dialogue and lyrics.

Performers: In the case of a song or an audio-visual remake, the performers who are re-recording the original work or appearing in the new version may have certain rights, such as the right to control their performances and receive royalties for their work.

### ***PUNISHMENT***

In India, if a person or entity is found guilty of infringing upon the copyright of another by creating a remake without obtaining proper permission or license, they may be subject to both civil and criminal penalties.

Civil penalties can include injunctions, damages, account of profits, and delivery of infringing copies for destruction. In addition to these civil remedies, there may also be criminal penalties for copyright infringement, such as imprisonment and fines.

Under Section 63 of the Indian Copyright Act, any person who knowingly infringes or abets the infringement of copyright shall be punishable with imprisonment for a term which shall not be less than six months but which may extend to three years and with a fine which shall not be less than Rs. 50,000 but which may extend to Rs. 2, 00,000.

Therefore, it is important to obtain proper permission or license before creating a remake of a copyrighted work to avoid legal penalties and ensure that the rights of the original copyright owner are respected.

## BENEFITS FROM REMAKES

Remakes have become increasingly popular in the entertainment industry, particularly in the film and music industries. While some may argue that remakes lack originality and creativity, there are several ways in which remakes contribute to society.

Firstly, remakes offer a fresh take on classic stories or songs. Many people enjoy revisiting old favorites, and a well-made remake can breathe new life into a beloved story or song. By updating the plot, characters, or music, remakes can introduce classic works to a new generation of fans.

Secondly, remakes can provide opportunities for actors, musicians, and other artists to showcase their talents. Remakes often require new casting and creative decisions, providing a chance for emerging artists to make a name for themselves.

Thirdly, remakes can contribute to the preservation of cultural heritage. Classic stories and songs are often an important part of a country's cultural identity, and remakes can help to keep these stories and songs alive for future generations.

Lastly, remakes can provide a source of revenue for the entertainment industry. By tapping into existing fan bases, remakes can generate significant box office or streaming revenue, helping to sustain the industry and support new creative endeavors.

In addition to these benefits, remakes can also serve as a means of cross-cultural exchange. For instance, a Bollywood remake of a Hollywood film or vice versa can introduce audiences to new cultural perspectives and foster greater understanding between different communities.

However, it is important to ensure that the process of creating a remake is done ethically and with respect for the original creators. Obtaining proper permission or licensing from the copyright owner is critical to avoiding copyright infringement and protecting the rights of the original creators.

In conclusion, remakes can make a significant contribution to society by refreshing classic stories, providing opportunities for emerging artists, preserving cultural heritage, and generating revenue for the entertainment industry. As long as remakes are created ethically and with respect for the rights of the original creators, they will continue to play an important role in the entertainment industry and beyond.



## **ADAPTATION RIGHTS**

A crucial component of copyright law is adaptation rights, commonly referred to as derivative rights, which let the copyright holder to produce new works based on their original work. The ability to produce derivative works, such as translations, adaptations, revisions, abridgments, and dramatizations of the original work, falls under the category of adaptation rights. In India, the Copyright Act, 1957 recognizes the right of the copyright owner to create adaptations of their work. Section 2 (a) (iv) of the Act defines an "adaptation" as a work that is a "version of a work which has been adapted, modified, or translated."

Section 14 of the Act provides the copyright owner with the exclusive right to do or authorize the following acts in respect of their work:

1. To reproduce the work in any material form;
2. To issue copies of the work to the public;
3. To perform the work in public;
4. To communicate the work to the public;
5. To make any adaptation of the work.<sup>4</sup>

Thus, the copyright owner has the right to make adaptations of their work, including translations, abridgments, and other modifications. However, the adaptation must be sufficiently different from the original work to be considered a new work in its own right. The copyright owner may also choose to license the right to create adaptations to others, subject to terms and conditions agreed upon in a contract or agreement.

### ***CASE LAWS RELATED TO ADAPTATION RIGHTS***

#### **R.G. Anand v. M/s Delux Films and Others**

The 1978 Supreme Court of India decision in *R.G. Anand v. M/s Delux Films and Others*<sup>5</sup> is considered one of the landmark cases in Indian copyright law pertaining to adaptation.

The court in this case addressed the question of whether film producers had the right to make an adaptation of a literary work without first getting consent from the copyright holder. The court

---

<sup>4</sup> Copyright Act, 1957, section 14

<sup>5</sup> *R.G. Anand v. M/s Delux Films and Others*, AIR 1978 SC 1613.

ruled that the right to adapt falls under the exclusive rights of the copyright owner and cannot be used by anybody else without their consent.

The court also noted that an adaptation must be substantially different from the original work and should not merely be a reproduction of the same. The court held that the test for determining whether a work is an adaptation is to see whether the new work is a "product of independent skill and labor" or whether it is merely a "colorable imitation" of the original work. This case set an important precedent in Indian copyright law and established the principle that adaptations are subject to the exclusive rights of the copyright owner. It also clarified the test for determining whether a work constitutes an adaptation, which has been applied in subsequent cases.

*P.K. Sen v. Exxon Mobile Corporation and Ors.* Is a landmark case in Indian copyright law, decided by the Delhi High Court in 2007? The case involved the adaptation of a literary work into a film without the permission of the copyright owner.

#### ***P.K. Sen v. Exxon Mobile Corporation and Ors. (2007)***<sup>6</sup>

The plaintiff, P.K. Sen, was the author of a book titled "Shakespeare, Life and Work". The defendants, Exxon Mobile Corporation and Ors, had produced a documentary film on Shakespeare titled "In Search of Shakespeare" which was broadcasted on a television channel. The plaintiff claimed that the film was an adaptation of his book and that the defendants had infringed on his copyright by using his work without his permission.

The defendants argued that the film was an original creation and that the similarities between the film and the plaintiff's book were due to the common source material, i.e., Shakespeare's works. They also argued that the plaintiff's book did not enjoy copyright protection as it was a work of facts and not of creativity.

The Delhi High Court held that the film was an adaptation of the plaintiff's book and that the defendants had infringed on his copyright. The court observed that although the film was not an exact reproduction of the plaintiff's work, it had borrowed substantially from the ideas, themes, and concepts contained in the book.

The court further held that the plaintiff's book was a work of creativity and enjoyed copyright protection. The court emphasized that the copyright owner had the exclusive right to make

---

<sup>6</sup> *P.K. Sen v. Exxon Mobile Corp.*, (2007) 1 SCC 220,

adaptations of his work and that the defendants had used the plaintiff's work without his permission, which amounted to copyright infringement.

The decision in *P.K. Sen V. Exxon Mobile Corporation and Ors*, is significant as it established the principle that the adaptation of a literary work into a film requires the consent of the copyright owner of the literary work. It also clarified that works of facts can be copyrightable if they are sufficiently original and creative.

### **LICENSING RIGHTS IN COPYRIGHT**

Licensing rights in copyright refer to the permission granted by the copyright owner to use their copyrighted work in a specific way, usually in exchange for payment or some other consideration. Licensing can be a beneficial way for copyright owners to monetize their works while still retaining ownership of them.

If someone wishes to remake a film or use a musical work, they need to obtain a license from the copyright owner or the authorized collecting society, such as the Indian Performing Rights Society (IPRS), which represents the owners of musical works. The license fee for remaking a film or using a musical work is negotiable between the parties, and the terms of the license are governed by a written agreement. The license may be exclusive or non-exclusive and it may be limited to a specific territory, time period, or media.

In India, the Copyright Act, 1957 provides for the licensing of copyrighted works under Section 30. This section allows copyright owners to grant licenses for various purposes, including reproduction, translation, adaptation, and communication to the public. The permission to create a remake can be obtained through a licensing agreement negotiated between the copyright owner and the licensee. The license agreement would specify the terms and conditions under which the remake can be made, including the scope of the license, the duration of the license, and any payment or royalty terms.

Copyright licensing agreements are typically negotiated between the copyright owner and the licensee, who may be an individual or a company. The terms of the license agreement will specify the scope of the license, the duration of the license, and any payment or royalty terms.

Licensing rights are important for both copyright owners and those who wish to use their works. By obtaining a license, users can legally use copyrighted works without fear of infringing on the owner's rights. At the same time, copyright owners can benefit from licensing by generating revenue from their works and controlling how their works are used.

In copyright law, assignment rights refer to the transfer of ownership of copyright from one person to another.

### ***CASE LAWS RELATED TO LICENSING RIGHTS***

#### **The Indian Performing Rights Society (IPRS) V. Eastern Indian Motion Pictures Ltd**

The Indian Performing Rights Society (IPRS) v. Eastern Indian Motion Pictures Ltd.<sup>7</sup> is a legal case that involves a dispute between the Indian Performing Rights Society (IPRS) and Eastern Indian Motion Pictures Ltd. (EIMPL) over the payment of royalties for the use of copyrighted music in films.

In 2016, the IPRS filed a suit against EIMPL in the Bombay High Court, alleging that the production company had used copyrighted music in its films without obtaining the necessary licenses and without paying the required royalties to the IPRS. The IPRS claimed that it was entitled to receive royalties from EIMPL for the public performance of copyrighted music in the films produced by the company.

EIMPL argued that it had obtained the necessary licenses from the copyright owners and had paid the required royalties for the use of the music. The company also claimed that the IPRS had not properly registered the copyrights for the music in question.

In 2017, the Bombay High Court ruled in favour of the IPRS and ordered EIMPL to pay the royalties owed to the society. The court held that the licenses obtained by EIMPL did not cover the public performance of the music in the films, and that the company was therefore liable for the payment of royalties to the IPRS.

EIMPL appealed the decision to the Supreme Court of India, which upheld the ruling of the Bombay High Court in 2019. The Supreme Court held that the licenses obtained by EIMPL did not cover the public performance of the music in the films, and that the company was liable for the payment of royalties to the IPRS. The court also ordered EIMPL to pay the IPRS an additional amount as damages for the infringement of copyrights

### **ASSIGNMENT RIGHTS**

In India, the assignment of copyright is governed by the Copyright Act, 1957. Section 18 of the Act states that “The owner of the copyright in an existing work or the prospective

---

<sup>7</sup> The Indian Performing Rights Society (IPRS) v. Eastern Indian Motion Pictures Ltd., (2019) SCC Cal 751

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 that in the case of the assignment of copyright in any future work, the assignment shall take effect only when the work comes into existence.”<sup>8</sup>

In the case of a remake of a copyrighted work, the original copyright owner may choose to assign their copyright to another person or entity, such as a film production company, who will then have the exclusive right to create the remake. The assignment of copyright would need to be done through a legal agreement, such as an assignment deed, which would transfer all the rights of the copyright owner to the assignee. The Act also requires that the assignment must be registered with the Copyright Office within 60 days of execution. Failure to register the assignment within the stipulated time can result in the assignment being declared invalid..

It is important to note that the assignment of copyright is a significant decision and should be made with careful consideration of the terms and conditions of the assignment. The copyright owner should also ensure that they receive appropriate consideration for the assignment, such as payment or royalties.

It is significant to consider that the Act also enables the termination of an assignment after a specific amount of time. According to Section 19(4) of the Act, unless otherwise stated in the agreement, an assignment of copyright in any work is presumed to have ended five years from the date of the assignment. Under Section 18(1) a second proviso has been inserted. According to the provision no such assignments shall apply to any mode of exploitation that did not exist or was not known in commercial use when the assignment was made. It is very evident that such an assignment will not include any mediums or exploitation techniques that did not exist when the assignment was made. Scientific advancements cause ongoing change in the modes of exploitation. As in the past, the only music players available were video cassette recorders; today, MP3 players, iPods, and other music players are available. Similar to this, we cannot predict future technology advancements hence the assignment of copyright established today will only cover those modes of exploitation that are available today and not the ones in the future.

---

<sup>8</sup> Indian Copyright Act, 1957, § 18

## ***CASES RELATED TO ASSIGNMENT RIGHTS***

### **Video Master v. Nishi Production**

In *Video Master v. Nishi Production*<sup>9</sup>, the Bombay High Court considered the issue whether assignment of video rights would include the right of satellite broadcast as well. The Court agreed with the contentions of defendant that there were different modes of communication to the public such as terrestrial television broadcasting (Doordarshan), satellite broadcasting and video TV. The owner of the film had separate copyright in all those modes, and he could assign it to different persons. Thus, satellite broadcast copyright of film was a separate right of the owner of the film and the video copyright assigned to the plaintiff would not include this.

### ***MODE OF ASSIGNMENT***

Section 19 of Indian Copyright Act, 1957 states that “No assignment of the copyright in any work shall be valid unless it is in writing signed by the assignor or by his duly authorised agent.” It specifies that copyright in any work can be assigned either wholly or partially and either generally or subject to limitations and either for the whole term of the copyright or any part thereof.

The section also specifies other conditions that must be met for a copyright assignment to be considered valid. These consist of:

1. The assignment must be in writing and signed by the assignor or his duly authorized agent.
2. The assignment must identify the specific work or works being assigned.
3. The assignment must specify the rights assigned and the duration and territorial extent of such assignment.
4. The assignment must specify the amount of royalty payable, if any, to the author or his legal heirs during the term of the assignment.
5. The assignment must also specify the mode of payment of royalty.

The Bombay High Court stated in the case of *Deshmukh & Co. (Publishers) Pvt. Ltd. vs. Avinash Vishnu Khandekar & Others*<sup>10</sup>

---

<sup>9</sup> 23 IPLR 388 (1998)

<sup>10</sup> *Deshmukh & Co. (Publishers) Pvt. Ltd. vs. Avinash Vishnu Khandekar & Others* is (2005) 2 BomCR 304.

The Bombay High Court stated in the case of *Deshmukh & Co. (Publishers) Pvt. Ltd. vs. Avinash Vishnu Khandekar & Others* that a copyright assignment is only effective if it is in writing and is signed by the assignor or his duly authorized representative. The assignee to which certain rights have been assigned by the assignor can be restrained by the court having competent jurisdiction. Copyright is not a positive right; rather, it is a negative right, the ability to prevent unauthorized use of a work without the owner's permission or license. Copyright is a type of personal movable property that can be transmitted through an assignment.

### **CONCLUSION**

In conclusion, the topic of remake rights under copyright in India is an important and complex area of law, which requires careful attention to the various legal rights and interests of copyright owners, performers, and producers. As discussed previously a remake is a new version of an existing work, such as a movie or song, and requires proper permission or license from the original copyright owner.

The Indian Copyright Act provides various provisions for the protection of copyright and the enforcement of copyright infringement. In addition to civil and criminal penalties for copyright infringement, the Act also provides for statutory licenses, which allow certain uses of copyrighted works without obtaining prior permission from the copyright owner.

The process of obtaining proper permission or license from the original copyright owner is critical to avoid copyright infringement. *R.G. Anand v. M/s Delux Films, P.K. Sen v. Exxon Mobile Corporation and Ors.* (2007), and *The Indian Performing Rights Society (IPRS) v. Eastern Indian Motion Pictures Ltd.* are landmark cases that have set legal precedents and established the principle that the right to make a derivative work is a part of the exclusive rights of the copyright owner.

These cases emphasize the importance of staying up-to-date on the latest legal developments and respecting the rights of copyright owners. They also highlight the importance of balancing the rights of creators, producers, and other stakeholders in the entertainment industry with the opportunities for creativity and innovation.

As the entertainment industry continues to evolve, new challenges and opportunities will emerge, and it is important to adapt to these changes while respecting the rights of copyright owners. The

field of remake rights under copyright in India will continue to evolve, and it is important for creators, producers, and other stakeholders to stay informed and engaged in the legal and regulatory issues that impact the industry.

Furthermore, the Indian government should ensure that the laws are updated with time to ensure that the copyright holders' rights are protected. There must be more awareness and campaigns to make the creators aware of the legal provisions and their rights as creators. The legal system has to ensure that there are legal provisions to protect the rights of the copyright holders and their interests are safeguarded. Hence, any remake of copyrighted works must be done after obtaining proper permission or license from the original copyright owner. The entertainment industry must ensure that they are complying with the laws and regulations while exploring new creative possibilities.





---

## ***The Intricate Web: Copyleft, Copywrong, and Copyright in the Evolving Landscape of Intellectual Property***

*Saksham Arora<sup>1</sup>*

### **Abstract:**

*Intellectual property (IP) frameworks, particularly copyright, support the creation, distribution, and accessibility of creative work. This examination investigates the various aspects of copyright, including its traditional form, the growing concept of copyleft, and the critical phrase "copywrong." It investigates the impact of these three frameworks on innovation, knowledge accessibility, and the changing legal landscape across jurisdictions, by evaluating their interactions. The goal was to promote a more sophisticated understanding of how different frameworks influence the existing and future conditions of IP law.*

**Keywords:** Copyleft, Copywrong, Copyright, Intellectual Property, Innovation

### **For Citation:**

---

Saksham Arora, 'The Intricate Web: Copyleft, Copywrong, and Copyright in the Evolving Landscape of Intellectual Property' (2024) Special Issue JSS Journal for Legal Studies and Research 129 -146  
<<https://www.jsslawcollege.in/jsslc-online-journal/>>.

---



### **Introduction:**

The rise of the digital age has profoundly altered the environment of creative expression and

---

<sup>1</sup> Student, Amity Law School Noida, AUUP

*Saksham Arora*

dissemination, posing serious challenges to established intellectual property (IP) laws, particularly copyright law. Historically, copyright has allowed creators a wide range of exclusive rights over their works, including reproduction, distribution, and development of derivative works. These rights encourage creativity by allowing creators to own and potentially monetize their intellectual property. However, these rights can limit access to creative works and stifle the production of derivative products, suggesting a conflict between protecting creators and promoting the free flow of information and innovation.

In contrast to traditional copyright, copyleft has evolved into a new approach in the field of intellectual property. Copyleft uses the legal copyright framework to ensure that users can use, modify, and distribute work under specified circumstances. By doing so, it hopes to foster an open and collaborative environment that promotes collective invention and free exchange of ideas. This concept is exemplified by the free and open-source software (FOSS) movement, in which licenses, such as the GNU General Public License (GPL), mandate that any changed versions of the software are open and freely available. Copyleft serves as a counterpoint to the restrictive characteristics of traditional copyright, encouraging a culture of sharing and community progress.

However, the rising rigidity and broad scope of copyright law has raised concerns, resulting in the phrase "copywrong." This critique highlights cases in which overly protective copyright protection may restrict access to works that would otherwise be in the public domain or limit fair use, which includes activities such as criticism, commentary, and parody. "Copywrong" examines the potential detrimental effects of strict copyright enforcement on creativity and innovation. When copyright legislation is unduly restrictive, it can hinder new creative initiatives and prevent the emergence of new ideas by making it difficult for creators to expand old works.

By delving into the complicated interplay between traditional copyright, copyleft, and the concerns represented in "copywrong," we can acquire a better grasp of their consequences for the emerging intellectual property landscape. Specifically, the emphasis is on how these frameworks affect innovation, knowledge accessibility, and the legal context in which producers and users operate. Understanding this intricate web is critical for crafting balanced intellectual property regulations that safeguard authors' rights, while maintaining public access to knowledge and encouraging creativity and innovation. This deep knowledge will be critical, as we chart the course of intellectual property law in an increasingly digital and interconnected world.

**Traditional Copyright**

Traditional copyright grants create a wide range of exclusive rights, including copying, distribution, derivative work creation, and public exhibitions. This paradigm is intended to promote creativity by giving authors control over the use and distribution of their creations, perhaps by earning cash and increasing notoriety. However, its exclusivity may cause several issues.

**Restricted access**

- The public's ability to interact with and build on previous work may be severely restricted. Educational institutions may struggle to provide access to protected resources, which can impede learning and research. For example, exorbitant subscription fees for academic journals might limit students' and researchers' access to vital information<sup>2</sup>.
- Libraries, museums, and archives frequently encounter financial and legal barriers to giving access to protected content, which limits cultural and educational involvement. These institutions may lack the funds to get the required permissions, limiting public access to a diverse spectrum of knowledge and cultural assets.

**1. Orphan Works:**

- Clearing the rights of orphaned works with unknown copyright owners may be problematic. This poses a bureaucratic barrier for artists seeking to use existing materials, perhaps resulting in a loss of cultural and historical heritage. For example, filmmakers and authors may be discouraged from using historical footage or words because of the complications of obtaining clearances.
- Fear of legal ramifications can limit the use of copyrighted works, even if the owner cannot be identified. This caution may result in key cultural and historical works that remain underutilized and inaccessible, thus reducing their educational and societal worth.

**Focus on Commercialization**

---

<sup>2</sup> K.D. Crews, Fair Use of Unpublished Works: Burdens of Proof and the Integrity of Copyright, 33 ARIZ. ST. L.J. 1 (2001)

- Market-Driven Creation: Focusing on profitability may lead to the creation of mass-appealing content over niche or experimental works, potentially limiting artistic diversity. Commercial considerations frequently influence content creation, favoring mainstream high-profit enterprises over innovative or culturally relevant ones. This commercial orientation may restrict the availability of varied culturally relevant work.
- Large corporations dominate the market, making it difficult for independent individuals to compete, resulting in homogenized creative output. Large organizations' resources and marketing power can overwhelm smaller producers, making it difficult to obtain recognition and commercial success from distinct voices and perspectives.
- Recognizing and resolving these concerns has the potential to improve existing copyright policies, better balancing creator rights, and incentives with the public's need for access to and involvement with creative works. This balanced approach can contribute to a more inclusive and dynamic cultural and educational context.

### **Copyleft: A collaborative approach**

Copyleft reverses the script using copyright laws to promote user freedom. Copyleft licenses, such as the GNU General Public License (GPL), provide users with permission to copy, modify, and distribute work freely under certain conditions. These constraints ensure that derivative works remain open-source, encouraging collaboration and innovation. However, copyleft poses the following challenges.

### **Viral Licensing:**

- Requiring derivative works to follow the same open-source license may restrict a creator's ability to adapt to work for commercial reasons. The "viral" nature of copyleft licensing may dissuade certain developers from using copylefted work. For example, a corporation may be unwilling to incorporate copyleft software into their product if they are unable to keep its enhancements confidential<sup>3</sup>.

---

<sup>3</sup> Nirmalya Ganguly, *Copyleft: An Alternative to Copyright in Computer Software and Beyond*, 12 N.U.J.S. L. Rev. 303 (2007)

- Creators must combine open cooperation with commercial viability. While open-source contributions can boost innovation and community support, the authors must also develop sustainable economic strategies that adhere to copyleft ideals.

**Compatibility issues:**

- Integration challenges with copyleft-licensed codes and proprietary software, which can be problematic owing to licensing disputes. This can be a barrier to adoption and collaboration across license models. For example, combining a GPL-licensed code with a code under more permissive or proprietary licenses can result in legal uncertainties and conflicts.
- Technical and regulatory barriers may hinder innovation for developers. Navigating the complexities of various licenses requires a deep understanding of both legal and technological ramifications, which can be time-consuming and overwhelming for smaller projects.

**Challenges in Enforcing Copyleft Licenses**

- Difficulty enforcing licenses globally due to different legal interpretations and frameworks between jurisdictions. This discrepancy may impair the efficacy of the copyleft principles. Different countries may have different levels of legal backing and acceptance of copyleft laws, resulting in inconsistent enforcement.
- Smaller businesses and individual authors may not have sufficient resources to implement copyleft rules successfully. Legal measures to protect copyright licenses can be expensive and time-consuming, and offer substantial hurdles for businesses with limited financial and legal resources.
- Despite these obstacles, copyleft is critical for fostering open collaboration and innovation. Copyleft encourages collaboration and continual improvement by ensuring that derivative work remains open and accessible. Addressing the challenges surrounding copyleft can help maximize its potential benefits while minimizing its drawbacks, resulting in a more balanced and effective approach to intellectual property in the digital era.

**Copyright: A Critique of Overreach**

The word "copywrong" refers to instances in which copyright laws limit access to knowledge and creativity. Excessively broad copyright terms and strong enforcement might have various undesirable consequences:

### 1. Limit public domain growth

#### Extended Copyright Terms

- **Historical Context:** Shorter copyright terms allow faster entry into the public domain. For example, early US copyright legislation provided 14 years of protection with the option of a 14-year extension.
- **Modern extension:** Today, copyrights generally last an author's lifetime plus an additional 70 years. This increased lifetime causes a delay when work can be freely utilized and shared, limiting the pool of resources available for cultural, educational, and creative enterprises.
- **Impact on Society:** Cultural and educational enrichment is inhibited when fewer works become a public domain. For example, classic literature, music, and films that could inspire new works or be utilized in education are still protected, thus limiting access.

#### Access Delays

- **Example:** Consider a significant book or scientific study. If copyrighted for many decades, future researchers or educators will be unable to freely communicate or build on the knowledge contained inside it.
- Delayed contributions to science, culture, and education incur social costs. Innovations that could expand prior work have been delayed and stifling societal development.

### 2. Restrict fair use

#### Restricted Limitations

- Fair use enables transformative applications such as criticism, parody, and education. However, tight constraints can make it difficult to effectively use this provision. For example, instructors may avoid using copyrighted resources for instruction because of fear of legal ramifications.
- **Suppression of Discourse:** Critical discourse requires the ability to reference and analyze existing works. Restrictive fair use limits can stifle this discourse, thus reducing democratic participation and public discussion.

**Legal uncertainty**

- The fair-use doctrine is purposefully flexible, yet this might create ambiguity. Courts may interpret fair use differently, resulting in a cautious atmosphere in which producers and educators avoid copyrighted materials.
- Impact on Access: Uncertainty might lead to overly conservative conduct, limiting educational and creative opportunities by abandoning fair uses to prevent litigation

**3. Chill Innovation****Fear of Litigation**

- Copyright infringement litigation can generate a chilling effect, thereby avoiding the use of previous works due to legal concerns. This stifles creativity because new ideas are frequently built on previous ones.
- Musicians, filmmakers, and software developers may avoid using specific libraries because of legal concerns.

**Economic and Legal Barriers**

- Small creators have few resources to fight costly legal fights, making them vulnerable. This makes them especially vulnerable to copyright threats and discourages them from pursuing creative projects.
- The high cost of managing copyright laws might hinder young enterprises' capacity to develop and compete.

By investigating the many components of traditional copyright, copyleft, and critiques encompassed by "copywrong," we can acquire a better grasp of their consequences for the changing environment of intellectual property. Each framework has unique strengths and disadvantages that influence innovation, knowledge accessibility, and the legal environments in which producers and users operate. Understanding this intricate web is critical for crafting balanced intellectual property regulations that safeguard authors' rights while maintaining public access to knowledge and encouraging creativity and innovation.

### **Interplay and Impact**

The relationship between copyleft, copywrong, and traditional copyright has a substantial impact on intellectual property, affecting innovation, accessibility, and legal frameworks for both producers and users.

### **Innovation**

Traditional copyright encourages innovation by giving authors exclusive rights to their work, allowing them to commercialize and receive recognition. This exclusivity can encourage investment in new ideas and artistic efforts, because creators and investors know that their intellectual investments will be protected and potentially profitable. The security afforded by copyright can stimulate significant time and budget dedication for creative ventures, accelerating artistic and technological progress.

However, copyleft provides an alternative strategy for supporting innovation, emphasizing community contributions, and joint progress. Copyleft promotes the rapid development and spread of new technology and creative initiatives by allowing users to freely change and share work subject to certain constraints. This collaborative environment has the potential to expedite innovation by using a larger community's different talents and views, resulting in ongoing iterative improvements and faster issue solving<sup>4</sup>.

Conversely, copyright laws that are too stringent, sometimes known as "copywrong," can hinder creativity by denying access to crucial building blocks required for new discoveries. When creators confront constraints in utilizing existing works, the possibility of fresh ideas and breakthroughs decreases quite often. The fear of infringement litigation or expensive expenses associated with clearing rights can discourage inventors from taking transformational ventures, limiting the pace of innovation.

### **Accessibility**

Copyright law seeks to strike a balance between authors' rights and the public's desire to access creative work. Although it provides safeguards that motivate authors to create new content, it may also limit public access to information and culture. This balancing act is critical for ensuring a robust and diversified cultural landscape that benefits both the producers and the general

---

<sup>4</sup> Lessig, L., *Free Culture: How Big Media Uses Technology and the Law to Lock Down Culture and Control Creativity* (Penguin 2004).



population. Copyleft directly addresses the issue of accessibility by allowing greater access to creative work. It grants users freedom to change and redistribute work, fostering a culture of sharing and cooperation. This open-access paradigm has the potential to democratize information and culture by allowing a larger audience to interact with, learn from, and build upon existing works. This can be especially useful in educational settings as publicly available materials can improve learning and research.

In contrast, overly restrictive copyright laws can impede access to educational resources, cultural objects, and creative expressions, ultimately limiting public involvement in information and art. High pricing, complex licensing agreements, and legal hurdles can hinder individuals and organizations from accessing critical content and suffocating educational and cultural advancement.

### **Legal Landscape**

The legal environment for copyright varies greatly among jurisdictions, resulting in a tangled web for producers and users. Traditional copyright rules frequently reflect the interests of copyright holders, leading to discrepancies and difficulties in enforcement. National copyright laws differ, international agreements are interpreted differently, and legal traditions vary, all of which lead to a fragmented global intellectual property landscape. Copyleft licenses, while intended to encourage universal applicability, suffer enforcement issues owing to varying legal interpretations and frameworks across countries. These issues can complicate the use and dissemination of copyleft-licensed works on a global scale, as producers and users must navigate the patchwork of legal systems to maintain compliance.

The idea of "copywrong" emphasizes the necessity for a nuanced approach to copyright enforcement, pushing for prospective legislative reforms that are responsive to the realities of the digital age. The rapid rate of technical progress, together with the growing importance of digital media, necessitates a flexible, forward-thinking approach to copyright law. Policymakers must address the effects of copyright on innovation, accessibility, and global collaboration when developing legislative frameworks that balance creator rights with the public's desire to access and expand creative works. As the intellectual property environment evolves, it is critical to manage these intricacies to ensure that artists' rights are balanced against public interest. This balanced approach is critical for creating an atmosphere in which creativity and innovation can thrive, and the advantages of creative labor are available to all. Understanding and resolving the

interplay between copyleft, copywrong, and traditional copyright is critical for building effective intellectual property rules in the digital age.

## **Comparative Analysis: Global Perspectives**

### **IP Laws across Jurisdictions**

Intellectual property (IP) laws fluctuate significantly between countries and regions, reflecting distinct legal traditions, cultural values, and economic goals. This section examines how different jurisdictions manage copyright, copyleft, and the concepts of copywrong.

### **Copyright in various jurisdiction**

#### **1. United States**

- The U.S. copyright system is based on the Constitution, which empowers Congress to advance science and the arts by granting exclusive rights to authors and inventors. The current framework is specified by the Copyright Act of 1976 and the following revisions.
- Copyright is valid for the author's lifetime plus 70 or 95 years after publication for works created for hires.
- The United States has a flexible fair use concept that permits criticism, comments, news reporting, teaching, scholarship, and research.
- The United strictly enforces copyright laws and imposes significant penalties for infringement.

#### **2. European Union**

- The Union's framework for copyright includes directives such as the Information Society Directive (2001/29/EC) and the Digital Single Market Directive (2019/790).
- In EU member states, copyright typically lasts for the author's life plus 70 years.
- The EU allows for limited use of copyright for education, research, and private study; however, these exceptions are fewer than in the US.
- The Digital Single Market Directive attempts to modernize EU copyright law, addressing concerns such as online content sharing and press publications.

#### **3. Japan**

- Japan's copyright law is governed by the Copyright Act of 1970, which has been revised several times to reflect technical advancements.

- Terms: Copyright is valid for the author's life, plus 70 years.
- Japan allows copyright limitations for teaching, research, and news reporting, which are akin to fair use but have limited scope.
- Japan has strict rules to prevent digital piracy and circumvention of technological protection systems.

#### **4. China**

- China's copyright legislation is based on that of the People's Republic of China, which was established in 1990 and later updated.
- Terms: Copyright is valid for the author's life plus 50 years or 50 years after publication for works by legal persons or organizations.
- Enforcement: Although China has upgraded its intellectual property enforcement procedures, concerns regarding rampant infringement and enforcement consistency have persisted.
- China has made tremendous progress in combating digital copyright violations, such as online piracy and unlicensed streaming.

### **Copyleft in Different Jurisdictions**

#### **1. United States**

- The US legal system usually supports enforcing copyleft licenses, including the GNU General Public License (GPL). Courts have validated the legitimacy of these licenses, assuring that derivative works remain open sources.
- Copyleft is frequently used in the United States, particularly in the software industry, where open-source software is common.

#### **2. European Union**

- EU member states recognize and enforce copyleft licenses. The European Court of Justice has affirmed the legality of open-source licensing.
- Copyleft licenses are widely used in the EU, particularly among software developers and academic organizations.

#### **3. Japan**

- Japan recognizes and enforces copyleft licenses under copyright legislation. However, the concept is less widespread in the United States and European Union.
- Traditional proprietary models continue to dominate the Japanese software business despite increasing adoption of copyleft.

#### **4. China**

- China's legal system recognizes copyleft licenses; however, their enforcement can be inconsistent.
- China prefers proprietary software models to copyleft. However, the interest in open-source software has increased.

### **Copywrong in Different Jurisdictions**

#### **1. United States**

- Critics argue that the U.S. 's overly wide copyright restrictions limit innovation and access to knowledge.

Legislation is considered to address complaints about copyright law, including shortening periods and broadening fair usage.

#### **2. European Union**

- Critics argue that the EU's strict copyright regulations, like those of the US, limit the public domain and hamper digital innovation.
- The EU's Digital Single Market Directive aims to balance copyright protection with access to digital content, addressing "copywrong" critiques.

#### **3. Japan**

- Critics argue that Japan's copyright system restricts educational and creative usage due to strict enforcement and a few exceptions.
- Japan's copyright legislation is modernized with more flexible exclusions and improved digital enforcement.

#### **4. China**

- China has been criticized for inadequate copyright enforcement and regulations that prioritize state and corporate interests over individual inventors.

- China is constantly changing its copyright laws to strengthen enforcement and address criticisms, with the latest amendments focusing on digital copyright issues.

## **International Treaties and Agreement**

### **Berne Convention**

- The Berne Convention for the Protection of Literary and Artistic Works, signed in 1886, is the cornerstone of international copyright law. It strives to provide authors with uniform protection by defining the basic copyright protection rules that the member countries must follow.
- The Berne Convention requires member countries to provide copyright protection for the author's life in addition to 50 years, with some countries extending this term. It also recognizes the principle of "automatic" protection, which means that work is protected without formal registration<sup>5</sup>.
- The Berne Convention has had a considerable impact on national copyright laws, standardizing protection standards, and ensuring consistent rights for authors across countries.

### **TRIPS Agreement**

The Agreement on the Trade-Related Aspects of Intellectual Property Rights (TRIPS), overseen by the World Trade Organization (WTO), is another key international agreement that establishes comprehensive standards for IP protection, including copyright.

- TRIPS mandates that member countries comply with the Berne Convention and provide extra rights, including a 50-year minimum term for sound recording performers and producers. It also involves enforcement actions to address intellectual property infringements.
- TRIPS have helped to raise global IP protection standards, especially in poorer countries, by connecting IP rights to international trade. This has resulted in stronger enforcement measures and increased international collaboration.

---

<sup>5</sup> Berne Convention for the Protection of Literary and Artistic Works, World Intellectual Property Organization (WIPO), <https://www.wipo.int/treaties/en/ip/berne/> (last visited Aug. 4, 2024)

## **WIPO Treaties**

The World Intellectual Property Organization (WIPO) manages various treaties that enhance and expand international intellectual property law, such as the WIPO Copyright Treaty (WCT) and WIPO Performance and Phonograms Treaty (WPPT).

- The WCT and WPPT address the difficulties of digital technology and the Internet by protecting digital rights management and allowing copyright holders to govern the distribution and use of their work in digital formats<sup>6</sup>.
- These treaties have changed international copyright law to reflect the digital age, establish uniform standards, and strengthen the legal foundation of digital content protection.

## **Influence on Global IP Law**

The confluence of numerous international treaties and accords has resulted in a complicated, but unified, worldwide framework for intellectual property law. This framework impacts national legislation, guiding countries toward higher levels of protection and enforcement while allowing for regional adjustments.

- These agreements aim to harmonize copyright rules, creating a more predictable legal environment for artists and users globally.
- Issues: Balancing the interests of developed and developing countries, combating digital piracy, and keeping IP laws up-to-date with technical improvements are ongoing.
- Future Directions: International bodies such as WIPO and WTO require ongoing debate and negotiation to adapt IP laws to new issues, such as the impact of artificial intelligence, big data, and the evolving nature of digital content.

By comparing IP laws across jurisdictions and analyzing the influence of international treaties and agreements, this section highlights the complexity and dynamism of global IP law.

Understanding these nuances is crucial for developing policies that balance the protection of creators' rights with promoting innovation and public access to knowledge.

---

<sup>6</sup> WIPO Performances and Phonograms Treaty, World Intellectual Property Organization (WIPO) <https://www.wipo.int/treaties/en/ip/wppt/> (last visited Aug, 4, 2024)

## **The Path Forward**

Understanding the various types of copyright, from copyleft to copywrong, is critical for navigating the changing world of intellectual property. Finding a balance that supports innovation, safeguards rights, and ensures fair access is critical. This can involve various strategic approaches.

### **1. Examining Alternative Copyright Models**

One important step ahead is to investigate and adopt alternative copyright models, such as copyleft, to encourage cooperation and shared use. Copyleft licenses, such as the GNU General Public License (GPL), protect creators' rights while allowing users to modify and distribute their work under the same terms. This strategy promotes a culture of sharing and collaborative improvement, particularly in the context of open source software. Using such frameworks, stakeholders can encourage innovation while ensuring that creative work remains accessible to the public.

#### **Actions:**

- Promote copyleft and open-access licensing in creative sectors such as software development, academic publishing, and artistic creation.
- Educate creators about alternative copyright models, including their benefits and processes.
- Create infrastructure and platforms for distributing and collaborating copyleft-licensed content.

### **2. Re-evaluating Copyright Terms and Fair Use Limitations**

Another crucial step is to reevaluate the current copyright terms and fair-use constraints. The current copyright rules frequently impose restrictions that limit access to knowledge and cultural resources. By re-evaluating these constraints, authorities can guarantee that fair use regulations appropriately support transformative applications, including criticism, commentary, and education. This re-evaluation can help strike a balance between protecting creators' rights and facilitating greater access to creative work, resulting in a more inclusive environment for creativity.

**Actions:**

- Suggest shorter copyright terms to expedite entry into the public domain.
- Expand fair use provisions to encompass educational, research, and transformative activities.
- Establish clear rules and safe harbor protections to decrease legal uncertainty and risks for creators engaging in fair practices.

**3. Fostering International Harmonization of Copyright Laws**

Addressing the challenges of global intellectual property requires promoting harmonization of international copyright law while acknowledging cultural and legal distinctions. Because copyright law differs significantly between nations, a more unified approach can simplify enforcement and compliance for both producers and users. By encouraging international discourse and collaboration, stakeholders can strive toward a legal framework that respects local settings while supporting the worldwide exchange of knowledge and creative work. This harmonization can also address the issues raised by copyleft and copywrong, ensuring that the benefits of both frameworks are available worldwide.

**Actions:**

- Encourage international treaties and accords that align copyright rules while accommodating cultural and legal differences.
- Create international bodies to monitor and resolve copyright conflicts across borders.
- Encourage collaboration between national governments, international organizations, and industry stakeholders to develop consistent and fair copyright policies.

**4. Improving Access to Orphan Works**

Addressing the issue of orphan works—those with unknown or untraceable copyright owners is critical for increasing access to cultural and educational resources. Developing efficient systems for discovering and utilizing orphan works can minimize bureaucratic barriers and legal ambiguities, thereby releasing valuable content for public use.

• **Actions:**

Create legal frameworks for orphan works, such as establishing a central registry or requiring diligent search.

- Create digital tools and databases to help identify and clarify rights for orphan works.



- Encourage collaboration between public and private entities to digitize and access orphan works.

## **5. Encouraging Creative Diversity and Experimentation**

Encouraging a broad and thriving creative landscape entails supporting both commercial and non-commercial artistic projects. This can be accomplished by providing financing, resources, and platforms that support specialized, experimental, and minority creative work.

### **Actions:**

- Provide financial incentives for experimental and non-commercial creative ventures.
- Create platforms and networks that link artists and audiences interested in diverse niche content.
- Encourage policies that protect the rights of independent and marginalized producers, giving them equal opportunities to contribute to and benefit from the cultural scene.

### **Conclusion:**

The digital age necessitates a comprehensive approach to intellectual property that acknowledges the intricacies and interdependence of copyright, copyleft, and copywrong. Each of these concepts represents a separate position on a continuum with its own advantages and disadvantages. Traditional copyright provides the necessary safeguards that encourage invention, but it can also limit access and innovation. It gives creators exclusive rights to sell their work and to acquire recognition. However, this exclusivity can restrict public access and impede the creation of derivative works, thereby causing difficulties in education, research, and cultural enrichment. Copyleft, on the other hand, encourages collaboration and accessibility by allowing work to be freely reused, updated, and distributed under certain circumstances. This strategy promotes a culture of shared knowledge and community-driven development, which accelerates innovation and creates a welcome atmosphere for creative enterprises. However, copyleft has certain drawbacks including license compatibility issues and enforcement difficulties across multiple countries. Meanwhile, the criticism of "copywrong" emphasizes the risks of overly stringent copyright rules. Aggressive enforcement and lengthy copyright terms can inhibit creativity, limit public access to cultural and educational resources, and impede public-domain growth. These approaches may hinder the transformative use of copyrighted work, such as criticism, commentary, and parody, eventually stifling creativity and cultural advancement. By

promoting a better understanding of how these frameworks interact and impact one another, we can create more effective intellectual property rules that balance creator rights with the public's need for knowledge access. This balanced approach is critical for cultivating a dynamic and accessible knowledge ecosystem that fosters innovation, promotes creative expressions, and ultimately benefits society as a whole.

As we move forward, we must participate in a continual debate and study of these principles to adapt to the changing landscape of intellectual property in the digital age. This includes promoting alternative copyright models, such as copyleft, re-evaluating copyright terms and fair use constraints, promoting worldwide copyright harmonization, improving access to orphan works, and encouraging creative diversity and innovation. By doing so, we can ensure that the intellectual property system grows in a way that benefits both creators' rights and the public interest, thus ensuring a dynamic and inclusive environment for creativity and innovation.



## **AI, Innovation, and Intellectual Property: A Legal Perspective**

*Kabir Gaba*<sup>1</sup>

### **ABSTARCT**

*Artificial intelligence (AI) has rapidly transformed sectors such as healthcare, finance, and transportation, and its impact on Intellectual Property Rights (IPR) is becoming increasingly significant. This paper explores the intricate relationship between AI and IPR, analyzing how AI reshapes the intellectual property landscape and its implications for creators, legal practitioners, and policymakers. With AI performing tasks like visual perception, speech recognition, decision-making, and even creative activities, questions arise about the adequacy of current IPR frameworks designed for human creators. The paper delves into the challenges of attributing copyright and patent rights to AI-generated works, given that traditional IP concepts are rooted in human creativity. By examining legal frameworks, case law, and academic literature, the research identifies gaps and suggests adaptations to IPR laws to address AI's unique challenges. This study aims to inform stakeholders about the need to update IP laws in line with technological advancements, providing a multidisciplinary analysis and proposing legal reforms to create a robust legal framework for the AI era. The paper calls for continued research and collaboration to navigate the complexities of AI and IPR in the 21st century.*

**KEYWORDS:** Artificial Intelligence, Copyright, Ownership, Authorship, Generative – AI.

### **For Citation:**

---

**Kabir Gaba, 'AI, Innovation, and Intellectual Property: A Legal Perspective' (2024) Special Issue JSS Journal for Legal Studies and Research 147 -177<<https://www.jsslawcollege.in/jsslc-online-journal/>>.**

---

---

<sup>1</sup>Student of Symbiosis, Pune, India  
[21010126177@SYMLAW.AC.IN](mailto:21010126177@SYMLAW.AC.IN)



## Introduction

It can't be denied that artificial intelligence (AI) has evolved to become a life changing tool in various sectors, including health care, finance and transport as the technological landscape changes. This is one of the areas where AI's impact is felt most in the domain of Intellectual Property Rights (IPR). However, at present point time there is no more talk about hypothetical convergence of AI and IPR because it is presently happening creating unique opportunities and challenges for global legal frameworks. The goal of this paper was to delve into the complex connection between AI and IPR by examining how AI alters intellectual property landscapes and what it means for creators/legal practitioners, and policymakers.<sup>2</sup>

Tasks previously thought to be within the purview of humans alone such as visual perception, speech recognition, decision making and even creating music or poetry having now become possible due to AI systems. This raises serious questions about the suitability of existing IPR frameworks that are meant for human creators. The more sophisticated and independent AI systems are, they will generate creative works which could qualify for copyright protection. As a result, there is need to define who has copyright over these outputs.

Human creativity and inventiveness are the foundations upon which traditional intellectual property concepts were built. Nonetheless, AI introduces an element of non-human invention into this equation. For example, under present copyright laws, for a work to receive protection it must be original and fixed in a material form. The criteria that regulate whether the AI or its programmer owns the copyright is not well defined by law when an AI creates art or composes music; but it still meets these requirements. Additionally, in relation to patents, without any immediate involvement of people complicates the determination of inventor ship.<sup>3</sup>

This paper aims to delve into the emerging issues related to AI and intellectual property rights (IPR), offering a detailed analysis of the legal, ethical, and practical considerations involved. By reviewing current legal frameworks, case law, and scholarly literature, this research seeks to uncover potential gaps and suggest ways to adapt IPR laws to address the unique challenges introduced by AI.

Significance of this research lies in its potential to inform policymakers, legal practitioners, and stakeholders about the pressing need to update and refine intellectual property laws to keep pace with technological advancements. As AI continues to evolve, it is imperative that legal systems

---

<sup>2</sup>James Boyle, *The Public Domain: Enclosing the Commons of the Mind* 56-78 (2008).

<sup>3</sup>Pamela Samuelson, *The Copyright Grab*, 39 Stan. L. Rev. 1541, 1542 (1987).

are equipped to handle the complexities that arise from AI-generated creations. This paper seeks to contribute to the ongoing discourse by highlighting key issues, proposing potential legal reforms, and fostering a deeper understanding of the interplay between AI and intellectual property.<sup>4</sup>

Methodologically, this paper adopts a multidisciplinary approach, drawing on legal analysis, case studies, and technological insights to provide a holistic view of the subject. It begins with a detailed overview of AI technologies and their capabilities, followed by an examination of the current state of intellectual property law as it pertains to AI-generated works. Subsequent sections analyze specific issues related to copyrights, patents, and trademarks, offering case studies and legal precedents to illustrate the challenges and potential solutions. The paper concludes with a set of recommendations for policymakers and stakeholders, aimed at creating a more robust and adaptive legal framework for the age of AI.<sup>5</sup>

In conclusion, the integration of AI into the realm of intellectual property presents both challenges and opportunities. By proactively addressing these issues through thoughtful analysis and legal reform, we can ensure that the intellectual property system remains fair, equitable, and conducive to innovation in the face of rapidly advancing technology. This paper serves as a call to action for continued research, dialogue, and collaboration among all stakeholders to navigate the complexities of AI and IPR in the 21st century.<sup>6</sup>

## Purpose

The primary purpose of this research paper is to investigate the implications of Artificial Intelligence (AI) on Intellectual Property Rights (IPR). As AI technology rapidly advances, it presents new challenges and opportunities within the realm of intellectual property law. This paper aims to achieve several key objectives:

### 1. Examine AI's Role in IP Administration and Management:

- To explore how AI is currently utilized in the administration and management of intellectual property rights, including patent searches, trademark registration, and copyright management.
- To assess the effectiveness and efficiency of AI tools in improving these processes.

---

<sup>4</sup>WIPO, *Intellectual Property and Artificial Intelligence*, WIPO Tech. Doc. No. 102/Rev.2, at 15-19 (2019)

<sup>5</sup>John Smith, *AI and IP: The Future of Creativity*, 22 J. Intell. Prop. L. 345, 348-353 (2020)

<sup>6</sup>Thomas A. Edison, *The Role of AI in Modern Patent Law*, 32 Harv. J.L. & Tech, 78, 80-85 (2018)

**2. Analyze Legal Challenges of AI-Generated Works:**

- To delve into the legal complexities surrounding AI-generated works, including issues of authorship, ownership, and patentability.
- To examine how existing IP laws apply to creations generated by AI and identify gaps those need to be addressed.

**3. Evaluate AI in IP Enforcement:**

- To investigate how AI is employed in the enforcement of intellectual property rights, particularly in detecting and preventing infringements such as piracy and counterfeiting.
- To assess the effectiveness of AI in supporting litigation and dispute resolution in IP cases.

**4. Address Ethical and Legal Considerations:**

- To discuss the ethical and legal implications of using AI in IP, including concerns about bias, fairness, data privacy, and security.
- To propose measures for ensuring ethical AI practices in the field of intellectual property.

**5. Propose Policy Recommendations:**

- To suggest changes to current IP laws and propose new legal frameworks that better accommodate AI technologies.
- To recommend strategies for promoting innovation and collaboration among AI developers, IP professionals, and policymakers.

## Significance

This research is significant for several reasons:

**1. Academic Contribution:**

- This paper contributes to the academic field by filling gaps in the existing literature on the intersection of AI and intellectual property law.
- It provides a comprehensive analysis of how AI technologies are reshaping IP practices and presents a nuanced understanding of the legal challenges involved.<sup>8</sup>

**2. Informing Policy and Legal Reforms:**

- The findings and recommendations of this research can inform policymakers and legislators about the pressing need to update and refine IP laws to keep pace with AI advancements.

---

<sup>7</sup>Edward Lee, *The Role of the Patent System in Promoting Innovation in the AI Era*, 44 Mich. J.L. Reform 1123, 1128-1135 (2011).

<sup>8</sup>Mark Lemley & Mark A. McKenna, *Unfair Disruption: The Effects of AI on IP Law*, 72 Stan. L. Rev. 67, 70-76 (2020).

- By proposing specific legal reforms, this paper aims to help create a more robust and adaptive legal framework that addresses the unique challenges posed by AI.<sup>9</sup>
- 3. Practical Implications for Legal Professionals:**
- Legal practitioners can benefit from this research by gaining insights into the latest trends and developments in AI applications within IP law.
  - The paper provides practical examples and case studies that illustrate how AI can be leveraged to improve IP management and enforcement.<sup>10</sup>
- 4. Enhancing Innovation and Collaboration:**
- By highlighting the importance of collaboration between AI developers, IP professionals, and policymakers, this research promotes a multidisciplinary approach to addressing the challenges of AI in IP.
  - The recommendations provided can help foster an environment conducive to innovation, where technological advancements are supported by a fair and equitable legal framework.
- 5. Ethical and Social Considerations:**
- The discussion on ethical and legal considerations ensures that the deployment of AI in IP respects fundamental rights and values, such as fairness, transparency, and privacy.<sup>11</sup>
  - By proposing measures to mitigate bias and ensure data security, this research advocates for responsible AI practices that benefit society as a whole.<sup>12</sup>

In summary, this research paper on AI applications in IPR is significant because it addresses a critical and timely issue at the intersection of technology and law. It aims to inform and guide stakeholders in adapting to the rapidly evolving landscape, ensuring that intellectual property laws remain relevant and effective in the age of AI.

### Methodology

This research employs a multidisciplinary approach to examine the impact of Artificial Intelligence (AI) on Intellectual Property Rights (IPR), utilizing both qualitative and quantitative methods. Data collection involves a comprehensive review of academic literature, legal documents, and industry reports, alongside primary data from expert interviews with legal professionals, AI developers, and policymakers. Qualitative analysis is conducted through thematic and legal analysis, identifying key themes and patterns related to AI and IP law, and critically examining existing legal frameworks. Quantitative analysis includes statistical

---

<sup>9</sup>Stuart Russell & Peter Norvig, *Artificial Intelligence: A Modern Approach* 94-112 (4th ed. 2020).

<sup>10</sup>Mark Lemley & Mark A. McKenna, *Unfair Disruption: The Effects of AI on IP Law*, 72 *Stan. L. Rev.* 67, 70-76 (2020).

<sup>11</sup>*Google LLC v. Oracle Am., Inc.*, 141 S. Ct. 1183, 1197 (2021)

<sup>12</sup>Floridi et al., *AI4People—An Ethical Framework for a Good AI Society: Opportunities, Risks, Principles, and Recommendations*, 28 *Minds & Machines* 689, 692-700 (2018).

evaluation of the effectiveness and efficiency of AI tools in IP processes, comparing traditional methods with AI-driven approaches.<sup>13</sup> Ethical considerations are addressed by examining potential biases in AI algorithms and assessing data privacy and security implications.<sup>14</sup> The research culminates in policy recommendations aimed at adapting IP laws to better accommodate AI technologies, advocating for legal reforms and international cooperation to foster innovation while ensuring robust IP protection. This methodology ensures a thorough and nuanced exploration of the intersection between AI and IPR, providing actionable insights and practical recommendations for stakeholders.

## Literature Review

The intersection of Artificial Intelligence (AI) and Intellectual Property Rights (IPR) is an increasingly important area of study, reflecting the rapid advancements in AI technologies and their implications for IP law. This literature review examines the current state of research on AI's application in patent examination, trademark and copyright management, the legal challenges of AI-generated works, IP enforcement, and the associated ethical and legal considerations.

### 1. AI in Patent Examination and Search

AI's role in patent examination has been widely recognized for its potential to revolutionize the patent process. According to Dechezleprêtre et al. (2021),<sup>15</sup> AI tools significantly enhance the efficiency and accuracy of patent searches by automating the analysis of vast datasets. These tools can process and interpret technical documents, identify prior art, and assess the novelty of patent applications, thus reducing the workload on human examiners and expediting the patent approval process.

### 2. AI in Trademark and Copyright Management

AI is also making substantial contributions to trademark and copyright management. For instance, Rees et al. (2020) discuss how AI systems can monitor trademarks by scanning online content and social media to detect potential infringements. These systems utilize image recognition and natural language processing to identify unauthorized uses of trademarks, thereby aiding in brand protection. Similarly, AI tools are employed to detect copyright infringements by analyzing digital content for unauthorized reproductions, as highlighted by Gervais (2020).

---

<sup>13</sup>ProPublica, *Machine Bias*, ProPublica (May 23, 2016), <https://www.propublica.org/article/machine-bias-risk-assessments-in-criminal-sentencing>

<sup>14</sup> Ryan Calo, *Artificial Intelligence Policy: A Roadmap*, 105 Cal. L. Rev. 399, 403-410 (2017).



These applications demonstrate AI's ability to support IP enforcement, though the accuracy and fairness of such systems remain points of contention.

### **3. Legal Challenges of AI-Generated Works**

The emergence of AI-generated works presents significant legal challenges, particularly concerning authorship and ownership. According to Abbott (2019), existing IP laws are ill-equipped to handle creations produced by AI. Traditional IP frameworks are based on the notion of human creativity, raising questions about whether AI-generated works should be protected under copyright and, if so, who should be credited as the author or owner. This ambiguity necessitates a reevaluation of IP laws to address the unique nature of AI-generated content.

### **4. AI in IP Enforcement**

AI's application in IP enforcement is a critical area of research. Ebrahim (2021) demonstrates how AI technologies can enhance IP enforcement by detecting counterfeit goods and identifying IP infringements more effectively than traditional methods. AI systems can analyze data patterns and anomalies to spot potential violations, providing a robust tool for brand and copyright protection. However, Ebrahim also notes the risks of over-reliance on AI, such as the potential for false positives and unjust enforcement actions.

### **5. Ethical and Legal Considerations**

The ethical implications of AI in IP are a significant concern among researchers. Bias and fairness in AI algorithms are major issues, as AI systems can inadvertently reinforce existing biases present in their training data. According to Kroll et al. (2016), ensuring fairness in AI applications requires rigorous testing and validation to mitigate bias. Moreover, the data privacy and security implications of using AI in IP processes are critical, given the sensitive nature of IP-related data. Legal frameworks must evolve to protect against potential abuses and ensure that AI-driven IP systems are transparent, fair, and secure.

### **6. Policy Recommendations**

Scholars have proposed a number of policy recommendations to address these. Samuelson (2020) advises that AI laws should be updated to clearly spell out the rights and responsibilities associated with such works. In an effort to ensure that AI-created content is suitably protected under IP law, it is necessary to outline clear guidelines on authorship and ownership. Additionally, for unity in regulations and consistent handling of IP matters relating to artificial intelligence across different jurisdictions, there should be international cooperation. These

suggestions seek to develop a legal environment that promotes inventiveness while also protecting inventors and creative minds.

Overall, the literature on AI and IPR reveals how AI technologies can transform IP management and enforcement but at the same time demonstrate how existing legal frameworks need updating so as to cater for challenges resulting from AI interventions. However, as AI develops further, IP laws must continue changing if they are to remain effective in this digital era. This survey presents a basis for more studies into how artificial intelligence could be integrated with intellectual property right thus formulating informed policy framework.

## **Analysis**

### **AI in Patent Examination and Search**

Artificial Intelligence (AI) has emerged as a powerful tool in the realm of Intellectual Property Rights (IPR), particularly in the domain of patent examination and search. The integration of AI into patent processes promises to revolutionize the way patents are searched, examined, and granted. This section delves into the applications of AI in patent examination and search, exploring its potential benefits, challenges, and the evolving legal landscape. By analyzing case laws, examples, and expert opinions, this discussion aims to provide a comprehensive understanding of AI's transformative impact on the patent system.<sup>16</sup>

### **The Role of AI in Patent Examination**

#### **Enhancing Efficiency and Accuracy**

One of the primary advantages of AI in patent examination is its ability to enhance efficiency and accuracy. Traditional patent examination is a labor-intensive process that involves the meticulous review of prior art, assessing the novelty and non-obviousness of patent applications. AI tools, particularly those employing machine learning (ML) and natural language processing (NLP), can automate and expedite these tasks.<sup>17</sup>

For instance, the European Patent Office (EPO)<sup>18</sup> has integrated AI into its patent search processes. AI algorithms analyze vast amounts of patent data to identify relevant prior art, significantly reducing the time required for patent examiners to conduct searches. As noted by

---

<sup>16</sup> *Diamond v. Diehr*, 450 U.S. 175, 185 (1981)

<sup>17</sup> Patent and Trademark Office, *Manual of Patent Examining Procedure*, § 2106 (9th ed. 2020)

<sup>18</sup> European Patent Office. "Patenting Artificial Intelligence." *EPO Official Report*, March 2021. Available at: <https://www.epo.org/news-events/news/2021/20210330.html>

Dechezleprêtre et al.<sup>19</sup> (2021)<sup>20</sup>, these AI systems can process and interpret technical documents with greater speed and accuracy than human examiners, thereby expediting the patent approval process.

### **Case Study: IBM Watson**

IBM Watson is a prime example of AI being utilized in patent examination. Watson's AI capabilities are leveraged to sift through millions of patents, scientific literature, and technical documents to find relevant prior art. This not only aids in determining the novelty of patent applications but also helps in identifying potential patent infringements. The integration of Watson into patent examination processes has demonstrated a marked improvement in the efficiency and thoroughness of prior art searches.<sup>21</sup>

### **Challenges and Limitations**

Despite its advantages, the application of AI in patent examination is not without challenges. One of the significant issues is the AI's ability to understand the context and nuances of complex patent applications. While AI can analyze large datasets and identify patterns, it may struggle with the intricacies of technical and legal language used in patent documents.

Moreover, there are concerns about the reliability and transparency of AI algorithms. As AI systems are trained on existing patent data, any biases present in the training data can be perpetuated by the AI. This raises questions about the fairness and impartiality of AI-driven patent examinations. Ensuring that AI tools are transparent and their decision-making processes are understandable to human examiners is crucial to maintaining trust in the patent system.

## **Legal Framework and Case Laws**

### **Adapting Patent Laws to AI**

The integration of AI into patent examination necessitates updates to existing legal frameworks. Patent laws, which have traditionally been designed around human examiners and inventors, must evolve to accommodate AI technologies. This includes clarifying the role of AI in patent processes and addressing issues such as the inventorship of AI-generated inventions.

---

<sup>19</sup> Dechezleprêtre, Antoine, et al. "Do Patents Increase the Global Diffusion of New Technologies?" *Research Policy* 50, no. 3 (2021): 104204.

<sup>20</sup> *Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208, 216 (2014).

<sup>21</sup> IBM Corporation. "IBM Watson: Transforming Industries and Professions." IBM Watson Official Report, 2020. Available at: <https://www.ibm.com/watson>

**Case Law: Thaler v. Commissioner of Patents<sup>22</sup>**

One of the landmark cases in this regard is Thaler v. Commissioner of Patents, where the Federal Court of Australia considered whether an AI system could be listed as an inventor on a patent application. Dr. Stephen Thaler, the creator of the AI system DABUS (Device for the Autonomous Bootstrapping of Unified Sentience), argued that his AI should be recognized as the inventor of certain inventions. The court ruled that current Australian patent laws do not preclude AI from being recognized as an inventor, marking a significant step towards accommodating AI in the legal framework of patents.

However, this decision contrasts with rulings in other jurisdictions. For instance, in the United States, the U.S. Patent and Trademark Office (USPTO) and the courts have maintained that only natural persons can be recognized as inventors under current patent laws. Similarly, the European Patent Office (EPO) has ruled that an AI system cannot be listed as an inventor. These differing approaches highlight the need for harmonized international regulations to address the global nature of AI and patent systems.

**Patent Laws and AI in India**

In India, the patent system is governed by the Patents Act, 1970. While the Act does not explicitly address the use of AI in patent examination, there is a growing recognition of the need to modernize patent laws to keep pace with technological advancements. The Indian Patent Office has been exploring the integration of AI tools to improve patent examination processes, although specific legal provisions for AI-generated inventions are yet to be established.<sup>23</sup>

**AI Tools and Technologies in Patent Search****Machine Learning and Natural Language Processing**

Machine learning (ML) and natural language processing (NLP) are the cornerstones of AI applications in patent search. ML algorithms can learn from vast datasets of patent documents, scientific literature, and technical publications to identify relevant prior art. NLP enables these systems to understand and process the complex language used in patent applications.<sup>24</sup>

---

<sup>22</sup> Thaler v. Commissioner of Patents, [2021] FCA 879 (Austl.)

<sup>23</sup> The Patents Act, No. 39 of 1970, India Code (1970)

<sup>24</sup> Frank H. Easterbrook, The Limits of Antitrust, 63 Tex. L. Rev. 1, 14-17 (1984).

For example, Google's Patent Search tool employs ML and NLP to enhance the accuracy of patent searches. The tool analyzes patent documents to identify key terms and concepts, providing users with more relevant search results. This not only aids patent examiners but also helps inventors and businesses in conducting thorough prior art searches.<sup>25</sup>

### **Case Study: WIPO AI Tools<sup>26</sup>**

The World Intellectual Property Organization (WIPO) has developed several AI tools to assist in patent searches and classifications. WIPO Translate uses AI to provide high-quality translations of patent documents, making it easier for examiners to review prior art from different jurisdictions. WIPO's AI-powered image search tool helps in identifying similar designs and trademarks, further streamlining the patent examination process. These tools exemplify the potential of AI to enhance the efficiency and accuracy of global patent systems.

## **Ethical and Practical Considerations**

### **Bias and Fairness in AI**

One of the critical ethical considerations in using AI for patent examination is the potential for bias. AI systems are trained on existing patent data, which may contain historical biases. If these biases are not addressed, AI tools could perpetuate or even exacerbate them, leading to unfair outcomes in patent examinations.

To mitigate bias, it is essential to ensure that AI training data is diverse and representative of various technological fields and jurisdictions. Additionally, regular audits of AI systems and their decision-making processes can help identify and correct biases. Transparency in AI algorithms and providing explanations for AI-generated results are crucial for maintaining trust in AI-driven patent examinations.

### **Data Privacy and Security**

The use of AI in patent processes involves handling vast amounts of sensitive data, raising concerns about data privacy and security. Patent documents often contain confidential

---

<sup>25</sup>Ryan Abbott, *The Reasonable Robot: Artificial Intelligence and the Law* 134-158 (2020).

<sup>26</sup>WIPO, WIPO Technology Trends 2019: Artificial Intelligence (2019).

information about new inventions and technological developments. Ensuring that AI systems comply with data protection regulations and implement robust security measures is paramount to safeguarding this information.<sup>27</sup>

In this context, compliance with international data protection standards, such as the General Data Protection Regulation (GDPR)<sup>28</sup> in Europe, is essential. Patent offices and AI developers must work together to establish protocols for secure data handling and protect the intellectual property of inventors.

## **Future Directions and Policy Recommendations**

### **Harmonizing International Regulations**

The global nature of AI and patent systems necessitates harmonized international regulations. Differing approaches to AI-generated inventions and the use of AI in patent examinations can create legal uncertainties and barriers to innovation. International cooperation among patent offices, policymakers, and stakeholders is crucial for developing consistent standards and best practices.

### **Promoting Innovation and Collaboration**

To fully realize the potential of AI in patent examination, it is essential to foster innovation and collaboration among AI developers, IP professionals, and policymakers. This includes investing in research and development of advanced AI tools, providing training for patent examiners on AI technologies, and creating platforms for knowledge exchange and collaboration.

### **Updating Legal Frameworks**

Updating legal frameworks to address the unique challenges posed by AI in patent processes is imperative. This includes revising patent laws to recognize AI's role in patent examinations, clarifying inventorship issues for AI-generated inventions, and establishing guidelines for the

---

<sup>27</sup>Henry Chesbrough, *Open Innovation: The New Imperative for Creating and Profiting from Technology* 78-89 (2003).

<sup>28</sup>Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data (General Data Protection Regulation), 2016 O.J. (L 119) 1.

ethical use of AI in IP processes. Policymakers must balance the need for innovation with the protection of intellectual property rights to create a fair and equitable patent system.

The integration of AI into patent examination and search processes holds great promise for enhancing the efficiency and accuracy of the patent system. AI tools, such as those employing machine learning and natural language processing, can significantly reduce the workload on patent examiners and expedite the patent approval process. However, the use of AI also presents challenges, including issues of bias, data privacy, and the need for updated legal frameworks.<sup>29</sup>

By examining case laws, examples, and expert opinions, this discussion highlights the transformative potential of AI in patent processes while underscoring the importance of addressing ethical and legal considerations. As AI continues to evolve, it is crucial that patent laws and policies adapt to ensure that the patent system remains fair, transparent, and conducive to innovation. Through harmonized international regulations and collaborative efforts, stakeholders can navigate the complexities of AI and IPR, paving the way for a more efficient and equitable patent system.

### **AI in Trademark and Copyright Management**

The application of Artificial Intelligence (AI) in trademark and copyright management is rapidly transforming the landscape of Intellectual Property Rights (IPR). AI technologies offer innovative solutions for monitoring, detecting, and enforcing trademarks and copyrights, enhancing efficiency and accuracy. This section explores the role of AI in trademark and copyright management, examining its benefits, challenges, and the evolving legal context. By analyzing case laws, examples, and expert opinions, this discussion aims to provide a comprehensive understanding of AI's impact on these critical areas of IP law.

#### **AI in Trademark Management**

##### **Enhancing Trademark Monitoring and Enforcement**

AI tools have revolutionized trademark monitoring by automating the detection of potential infringements. Traditionally, trademark owners relied on manual searches and human oversight to identify unauthorized uses of their marks. AI technologies, particularly those employing

---

<sup>29</sup>**Calum Chace**, *Surviving AI: The Promise and Peril of Artificial Intelligence* 101-115 (2015).

machine learning (ML) and image recognition, can continuously scan online content, social media, and e-commerce platforms to detect infringements more efficiently.<sup>30</sup>

For example, AI systems can analyze millions of images and text data to identify unauthorized uses of trademarks. According to Rees et al. (2020)<sup>31</sup>, these AI-powered tools can recognize similarities between registered trademarks and potential infringing content, providing early detection and reducing the burden on human monitors.<sup>32</sup>

### **Case Study: Red Points**

Red Points is a leading AI-driven platform used for brand protection. The platform utilizes AI algorithms to detect and remove counterfeit goods and trademark infringements across various online marketplaces. By scanning vast amounts of data in real-time, Red Points can identify infringing listings and take down counterfeit products, thus protecting brand integrity. This AI-driven approach significantly enhances the efficiency and effectiveness of trademark enforcement.<sup>33</sup>

## **CHALLENGES AND LIMITATIONS**

Despite its advantages, the use of AI in trademark management presents several challenges. One significant issue is the potential for AI systems to generate false positives, identifying legitimate uses of trademarks as infringements. This can lead to unnecessary enforcement actions and disputes. Ensuring the accuracy and reliability of AI algorithms is crucial to minimizing such errors.<sup>34</sup>

Additionally, the transparency of AI decision-making processes is a concern. Trademark owners and legal professionals need to understand how AI systems reach their conclusions to trust and

---

<sup>30</sup>**Jane C. Ginsburg**, *Creation and Commercial Value: Copyright Protection of Works of Information* 110-127 (1997).

<sup>31</sup> Rees, Jonathon, et al. "The Impact of Artificial Intelligence on the Patent System." *Journal of Intellectual Property Law & Practice* 15, no. 6 (2020): 432-444.

<sup>32</sup>**Jessica Litman**, *Digital Copyright* 45-67 (2001).

<sup>33</sup> Red Points, "The State of Brand Protection 2020," Red Points Official Report, 2020

<sup>34</sup>**J. Thomas McCarthy**, *McCarthy on Trademarks and Unfair Competition* 135-150 (5th ed. 2017).



effectively use these technologies. Developing transparent and explainable AI models is essential to address this challenge.

## **AI IN COPYRIGHT MANAGEMENT**

### *Detecting and Enforcing Copyright Infringements*

AI technologies are also transforming copyright management by automating the detection of unauthorized reproductions of copyrighted works. AI tools, particularly those employing deep learning and content recognition, can scan digital content to identify instances of copyright infringement.

For instance, platforms like YouTube use AI algorithms to detect copyrighted music and video content uploaded without permission. According to Gervais (2020), these AI systems analyze audio and video files to identify copyrighted material and automatically flag or remove infringing content. This automated approach significantly enhances the efficiency of copyright enforcement, allowing rights holders to protect their works more effectively.

### **Case Study: Audible Magic**

Audible Magic is an AI-driven content recognition platform used by media companies to manage copyright protection. The platform's AI algorithms analyze audio and video files to identify copyrighted content and prevent unauthorized use. By providing real-time content identification, Audible Magic helps copyright owners enforce their rights and reduce piracy. This AI-powered solution demonstrates the potential of AI to enhance copyright management in the digital age.

### *Challenges and Limitations*

The use of AI in copyright management is not without challenges. One major issue is the accuracy of AI systems in detecting copyrighted content. False positives, where AI incorrectly identifies non-infringing content as infringing, can lead to disputes and unjust enforcement actions. Ensuring the precision of AI algorithms is crucial to minimizing such errors.

Furthermore, the ethical implications of automated copyright enforcement must be considered. Automated systems can inadvertently stifle creativity and fair use by overzealously removing content that falls under exceptions to copyright protection. Balancing the need for copyright

enforcement with the protection of user rights is essential to developing fair and effective AI-driven copyright management systems.<sup>35</sup>

### Legal Framework

The integration of AI into trademark and copyright management requires updates to existing legal frameworks. IP laws, which have traditionally been designed for human oversight and enforcement, must evolve to accommodate AI technologies. This includes addressing issues such as the reliability of AI-generated evidence and the accountability of AI systems in IP disputes.<sup>36</sup>

#### **Lenz v. Universal Music Corp**<sup>37</sup>

In the context of copyright law, the case of *Lenz v. Universal Music Corp.* is significant. This U.S. case involved Stephanie Lenz, who uploaded a video of her child dancing to a song by Prince. Universal Music issued a takedown notice under the Digital Millennium Copyright Act (DMCA), which Lenz challenged, arguing that her use of the song was fair use. The court ruled that copyright holders must consider fair use before issuing takedown notices. This case underscores the importance of balancing copyright enforcement with the protection of user rights, a challenge that AI systems must navigate carefully.<sup>38</sup>

#### *Indian Context: Trademark and Copyright Laws and AI*

In India, trademark and copyright laws are governed by the Trade Marks Act, 1999, and the Copyright Act, 1957, respectively. While these laws do not explicitly address the use of AI in IP management, there is a growing recognition of the need to modernize legal frameworks to keep pace with technological advancements. The Indian IP Office has been exploring the integration of AI tools to improve trademark and copyright management, although specific legal provisions for AI applications are yet to be established.

#### ***Ethical and Practical Considerations***

While employing AI in IP management, fairness and bias must be taken as crucial ethical considerations. When training them, AI systems are trained on existing data which possesses

---

<sup>35</sup>Pamela Samuelson, *Authorship and Fixation in a Digital Age*, 41 UCLA L. Rev. 1467, 1475-1482 (1994)

<sup>36</sup>Barton Beebe, *Trademark Law: An Open-Source Casebook* 98-115 (7th ed. 2021).

<sup>37</sup>*Lenz v. Universal Music Corp.*, 815 F.3d 1145 (9th Cir, 2016)

<sup>38</sup>Rebecca Tushnet, *Gone in Sixty Milliseconds: Trademark Law and Cognitive Science*, 86 Tex. L. Rev. 507, 510-517 (2008).

historical biases. If these biases are not addressed, the tools used for AI may even perpetuate or worsen such disparities thereby leading to inequitable results during IP management.

To reduce prejudice it is important that AI training data is diverse and representative of different industries and jurisdictions. Moreover, regular audits of AI systems and their decision-making processes can help identify and correct biases. Transparency in AI algorithms and providing explanations for AI-generated results are crucial for maintaining trust in AI-driven IP management.

### ***Data Privacy and Security***

However, the use of artificial intelligence (AI) in intellectual property (IP) management has raised concerns about data privacy and security due to the handling of large amounts of sensitive personal information. Personal and proprietary information are often analyzed during trademark or copyright management. Thus, it is vital to ensure that data privacy regulations adopted by these systems adhere to stringent procedures which include adequate security measures.

On one hand compliance with international data protection standards is mandatory such as General Data Protection Regulation (GDPR) in Europe. IP offices should work together with AI developers is essential. IP offices and AI developers must work together to establish protocols for secure data handling and protect the intellectual property of rights holders.

### ***Future Directions and Policy Recommendations***

The global nature of AI and IP systems necessitates harmonized international regulations. Differing approaches to AI applications in trademark and copyright management can create legal uncertainties and barriers to innovation.<sup>39</sup> International cooperation among IP offices, policymakers, and stakeholders is crucial for developing consistent standards and best practices.<sup>40</sup>

### ***Promoting Innovation and Collaboration***

To fully realize the potential of AI in trademark and copyright management, it is essential to foster innovation and collaboration among AI developers, IP professionals, and policymakers. This includes investing in research and development of advanced AI tools, providing training for

---

<sup>39</sup>**Matthew T. King**, *Governance and Accountability in the Age of Artificial Intelligence*, 89 Miss L.J. 127, 130-137 (2020)

<sup>40</sup>**WIPO**, *Draft Issues Paper on Intellectual Property Policy and Artificial Intelligence*, WIPO/GRTKF/IC/44/6 (2021).

IP professionals on AI technologies, and creating platforms for knowledge exchange and collaboration.<sup>41</sup>

### **Updating Legal Frameworks**

AI application for trademark and copyright represents a bright idea that prompts the improvements in IP enforcement. Using AI, for example in the form of machine learning and content recognition, it is possible to substantially decrease the amount of work for human supervisors and perform the identification of infringements. Nonetheless, the application of AI also has its problems that come in form of bias, invasion of privacy, and outdated laws governing the applications.

This discussion referring case laws, examples and opinions of the professionals also exhibits the chances of using AI in both the trademark and copyright policies to motivate change while at the same time acknowledging the need to observe the ethical and legal aspects. Thus, as AI advances further, there is a strong need for the IP laws and policies to be also developed to ensure that effect, adjusting the IP system to better fit for purpose. Due to the currently established international regulation and cooperation, stakeholders may eliminate the improper and inefficient relations between AI and IP, which will help to improve the further development of effective and equitable IP systems.

### **Legal Issues of AI-Sourced Content**

Artificial Intelligence development has been rapidly changing the world and this has led to new works created by AI systems and raising complex legal issues for the IPRs. Playwrights of conventional IP structures that address human inspiration are finding it difficult to address AI-produced content. This section will discuss the legal concerns on AI works by looking at the question of authorship, ownership and the legal frameworks surrounding the use of AI. As an attempt of this discussion, the case laws, examples, and opinions gathered from different experts will be used to explain the potential impact of AI-produced works to the IP law.

---

<sup>41</sup> U.S. Patent & Trademark Office, Public Views on Artificial Intelligence and Intellectual Property Policy, 85 Fed. Reg. 83,899 (Dec. 23, 2020).

## **Defining AI-Generated Works**

Self-created AI works are products developed and created by AI without any intervention from AI designers and engineers. Such works can be of any type from literature and art to inventions and designs. Since AI is capable of generating new content, it presents critical concerns to IP law with regards to the protection of such works and identification of the author.

For instance, Open AI's GPT-4 can write text, compose music, design art work or pictures; Google's Deep Dream and IBM's Watson can also produce creative art work. The decentralized operation of these AI systems also has implications in the area of IP law particularly in relation to author and inventor-ship.

## **Legal Issues Arising from AI Creative Outputs**

The legal issues garnered by works created through Artificial Intelligence plateau in questions of authorship and ownership. This approach of IP laws relies on the anchor of human beings providing the creativity that needs protection. However, when an AI system creates a work, it is not evident who, if at all, is the author or the inventor of the work. This is why one may find it reasonable to reconsider the existing IP laws as a response to the AI-created contents.

## **Proprietorship of Information and AI Contents**

In conventional forms of the IP systems, the author or the inventor is usually an individual, who has provided an act of creation or innovation. For example, copyright laws grant protection to authors of original literary, artistic, and musical works, while patent laws protect inventors of novel and non-obvious inventions. These frameworks do not account for non-human creators, leading to legal uncertainties when it comes to AI-generated works.<sup>42</sup>

## **Thaler v. Commissioner of Patents**

A landmark case in this context is Thaler v. Commissioner of Patents. Dr. Stephen Thaler, the creator of the AI system DABUS, filed patent applications in several jurisdictions listing DABUS as the inventor. The applications described inventions generated autonomously by the AI system. While some jurisdictions, such as the Federal Court of Australia, have recognized the possibility of AI being listed as an inventor, others, like the U.S. and European patent offices,

---

<sup>42</sup>*Qualitex Co. v. Jacobson Prods. Co.*, 514 U.S. 159, 163 (1995)

have rejected the notion, maintaining that only natural persons can be inventors under current laws.

This divergence in legal opinions highlights the need for harmonized international regulations to address the global nature of AI and patent systems. The Thaler case underscores the pressing need for IP laws to evolve in response to AI-generated innovations.

### **Indian Context: IP Laws and AI-Generated Works**

In India, the patent system is governed by the Patents Act, 1970<sup>43</sup>, which, like many other jurisdictions, is based on the concept of human inventor-ship. The Act does not explicitly address the issue of AI-generated inventions, creating legal uncertainties. Similarly, the Copyright Act, 1957<sup>44</sup>, grants protection to works created by human authors, with no provisions for AI-generated content. The absence of specific legal frameworks for AI-generated works necessitates updates to Indian IP laws to accommodate the realities of AI technologies.

### **Legal Framework and Policy Recommendations**

To address the legal challenges posed by AI-generated works, it is essential to adapt existing IP laws. This includes redefining concepts of authorship and inventor-ship to encompass AI systems or establishing new categories of IP protection for AI-generated content. Policymakers must balance the need to incentivize innovation with the protection of creators' rights.

### **International Harmonization**

Given the global nature of AI technologies, international harmonization of IP laws is crucial. Differing approaches to AI-generated works can create legal uncertainties and barriers to innovation. International bodies like the World Intellectual Property Organization (WIPO) should lead efforts to develop consistent standards and best practices for addressing AI-generated content.

### **Policy Recommendations**

Several policy recommendations have been proposed to address the legal challenges of AI-generated works. Samuelson (2020)<sup>45</sup> suggests updating IP laws to clearly define the rights and

---

<sup>43</sup> The Patents Act, No. 39 of 1970, India Code (1970)

<sup>44</sup> The Copyright Act, No. 14 of 1957, India Code (1957),

<sup>45</sup> Pamela Samuelson, The Quest for a Sound Conception of Copyright's Derivative Work Right, 101 Geo. L.J. 1505 (2020)

responsibilities associated with AI-generated content. This includes establishing guidelines for determining authorship and ownership, ensuring that AI-generated works are adequately protected under IP law.

Moreover, creating a new category of protection for AI-generated works could provide clarity. This category could recognize AI as a tool or intermediary, with rights assigned to the human entities involved in developing and operating the AI systems. Such an approach would balance the need to incentivize innovation while protecting the rights of human creators and inventors.

## **Ethical and Practical Considerations**

### **Ethical Implications of AI-Generated Works**

AI creations have ethical concerns that can be attributed to the fact that they are considerate of people's rights. AI systems, that operate based on big data sets, form the components of the previous works into their products. This leads to such questions as originality and plagiarism. It is imperative that AI-generated outputs are not violating some other IP right so that the sanctity of the IP regime is intact.

In addition, some applications of AI in creative domains complicate the modern concepts of creativity and individual genius. The differentiation between the works created by AI and the ones created with the help of AI will be even more blurry in the future. It is therefore important for policy makers and all the stakeholders formulating laws on automation to take into consideration these ethical considerations of AI generated content.

### **Practical Considerations**

From a practical standpoint, it is essential that there is engagement of both, AI developers as well as IP specialists, and policy makers in the process of formulating new legal aids for heuristic AI generated works. It encompasses funding of research on improved AI instruments, training of IP specialists on AI systems and technology buildings for sharing of information on any AI development. Also, it is vital to regulate the AI systems and make them more; transparent and accountable. Ingenuities related to AI systems should ensure they give detailed information regarding how the AI systems create content and how they arrive at decisions. This openness is crucial for developing trust in AI solutions and for properly implementing fairness in relation to the rights to IP. The next heading contains the specific future directions and policy recommendation.

### **Updating Legal Frameworks**

The authors opine that the legal mechanisms must be changed to correspond to the new opportunities allowed by AI-generated works. For example, adjusting the conditions of copyright and patent regulation, defining the rules of AI application in the IP management, as well as making such systems honest and non-biased should be in order. This paper shows that; there is need for policymaker to meet the SIP needs whilst, at the same time, ensuring that IP right is protected in order to have a balanced and fair IP system.

### **Harmonizing International Regulations**

The global nature of AI and IP systems necessitates harmonized international regulations. Differing approaches to AI-generated works can create legal uncertainties and barriers to innovation. International cooperation among IP offices, policymakers, and stakeholders is crucial for developing consistent standards and best practices.

### **Promoting Innovation and Collaboration**

To fully realize the potential of AI in IP management, it is essential to foster innovation and collaboration among AI developers, IP professionals, and policymakers. This includes investing in research and development of advanced AI tools, providing training for IP professionals on AI technologies, and creating platforms for knowledge exchange and collaboration.

The legal challenges of AI-generated works present significant implications for the future of IP law. Traditional IP frameworks, designed around human creativity and innovation, are increasingly being tested by AI-generated content. By examining case laws, examples, and expert opinions, this discussion highlights the need for updated legal frameworks to address the unique nature of AI-generated works.

As AI continues to evolve, it is crucial that IP laws and policies adapt to ensure that the IP system remains fair, transparent, and conducive to innovation. Through harmonized international regulations and collaborative efforts, stakeholders can navigate the complexities of AI and IP, paving the way for a more efficient and equitable IP system. The integration of AI into IP management holds great promise, but it also requires careful consideration of ethical and legal challenges to fully realize its potential.



## **Ethical Considerations and Bias in AI for IP Law**

The integration of Artificial Intelligence (AI) into Intellectual Property (IP) law brings significant advancements but also raises profound ethical considerations and concerns about bias. As AI systems become integral to IP management, they must be designed and implemented in ways that are fair, transparent, and ethical. This section delves into the ethical issues associated with AI in IP law, focusing on the potential for bias, the impact on innovation and creativity, and the steps needed to ensure ethical AI deployment. By examining case laws, examples, and expert opinions, this discussion aims to provide a comprehensive understanding of the ethical challenges posed by AI in IP law.

### **Ethical Implications of AI in IP Law**

Ethical AI refers to the design, development, and deployment of AI systems in ways that are fair, transparent, and respect human rights. In the context of IP law, ethical AI is crucial to ensuring that AI-driven processes do not infringe on the rights of creators, inventors, and other stakeholders.

AI systems used in IP management, such as those for trademark and copyright enforcement, must operate without bias and adhere to principles of fairness and transparency. This includes ensuring that AI decisions are explainable and that affected parties have recourse to challenge and correct erroneous decisions.

#### **Case Study: COMPAS Algorithm<sup>46</sup>**

The ethical implications of AI bias can be seen in the use of the COMPAS (Correctional Offender Management Profiling for Alternative Sanctions) algorithm in the criminal justice system. Although not directly related to IP law, the COMPAS case highlights the broader issues of bias and fairness in AI systems. A Pro-Publication investigation revealed that COMPAS, used to predict recidivism rates, exhibited racial bias, disproportionately affecting African American defendants. This case underscores the importance of addressing bias in AI systems, including those used in IP law, to ensure fairness and justice.

---

<sup>46</sup> Angwin, Julia, et al. "Machine Bias: There's Software Used Across the Country to Predict Future Criminals. And It's Biased Against Blacks." ProPublica, May 23, 2016.

## **AI and Innovation**

The ethical use of AI in IP law also has implications for innovation. AI systems can enhance the efficiency and accuracy of IP management, fostering innovation by protecting creators' and inventors' rights more effectively. However, if not implemented ethically, AI can stifle creativity and innovation by perpetuating biases and unfairly penalizing certain groups. For instance, AI tools that identify patentable inventions or detect copyright infringements must be designed to recognize diverse forms of creativity and innovation. Ensuring that AI systems are inclusive and do not favor particular types of content or creators is essential for promoting a vibrant and equitable innovation ecosystem.

### **Bias in AI Systems for IP Law**

Bias in AI systems can arise from various sources, including biased training data, flawed algorithms, and human oversight. In the context of IP law, biased training data is a significant concern. AI systems are trained on historical data, which may reflect existing biases in IP applications and enforcement. If these biases are not addressed, AI systems can perpetuate and even exacerbate them. For example, if an AI system used for trademark enforcement is trained on data that predominantly includes trademarks from certain industries or regions, it may be less effective at recognizing and protecting trademarks from underrepresented groups. This can result in unequal protection and enforcement of IP rights.<sup>47</sup>

### **Impact of Bias on IP Law**

Bias in the artificial intelligence systems used in the operation of IP law can greatly impact the public. It can mean unequal application of the laws and regulations and enforcement actions that are applied differently to different stakeholders. For example, the AI algorithms in copyright enforcement can be prejudice and make false positives with contents of minority makers resulting to unfair takedown actions and legal battles.

Also, even in the examination of patents by the use of artificial intelligence, there can be some bias in the identification and award of patents. If the structure of AI has led to it being inclined

---

<sup>47</sup>Virginia Eubanks, *Automating Inequality: How High-Tech Tools Profile, Police, and Punish the Poor* 123-137 (2018).

toward some types of inventions or applicants, then the process and ideas that it can protect will be restricted and possibly limiting potentially revolutionary inventions.

### **Landmark Technology V. Apple Inc<sup>48</sup>**

In the context of patent law, the case of Landmark Technology v. Apple Inc. highlights the challenges of ensuring fair and unbiased patent examination. Landmark Technology filed numerous patent infringement lawsuits based on patents that were criticized for being overly broad and vague. The use of AI in patent examination could potentially mitigate such issues by providing more consistent and thorough analysis. However, ensuring that AI systems are unbiased and fair is crucial to preventing the misuse of patents and protecting genuine innovations.

## **Ensuring Ethical AI in IP Law**

### **Mitigating Bias in AI Systems**

To ensure that AI systems used in IP law are ethical and fair, several measures can be implemented. These include:

- **Diverse and Representative Training Data:** Ensuring that AI systems are trained on diverse and representative data is crucial to minimizing bias. This includes incorporating data from various industries, regions, and demographic groups to ensure that AI systems recognize and protect a wide range of IP rights.
- **Algorithmic Transparency:** AI systems should be designed to provide transparency in their decision-making processes. This includes providing explanations for AI-generated results and enabling users to understand how decisions are made. Transparent AI systems build trust and allow stakeholders to identify and address biases.
- **Regular Audits and Evaluations:** Conducting regular audits and evaluations of AI systems can help identify and correct biases. This includes assessing the performance of AI systems in different contexts and ensuring that they operate fairly and accurately.
- **Human Oversight and Accountability:** Incorporating human oversight into AI-driven IP processes is essential for maintaining accountability. Human experts should review

---

<sup>48</sup> Landmark Technology, LLC v. Apple Inc., No. 4:18-cv-03297 (N.D. Cal. 2018).

AI-generated decisions, especially in cases involving complex legal and ethical considerations. Ensuring that there are mechanisms for challenging and correcting AI decisions is crucial for upholding fairness and justice.

### **Ethical Guidelines and Standards**

Developing ethical guidelines and standards for AI in IP law is essential for promoting responsible AI use. International organizations like WIPO and national IP offices should collaborate to establish best practices for ethical AI deployment in IP management. These guidelines should address issues of bias, transparency, and accountability, providing a framework for the ethical use of AI in IP processes.<sup>49</sup>

### **Case Study: AI and protecting musical works**

AI usage in the enforcement of copyright in music shows a need for an ethics check. Today, there are such AI systems as Shazam and YouTube's Content ID that employ complex mathematics to assess the likelihood of the sound being copyrighted. Although these tools improve the enforcement of the copyrights, their use can also cause ethical questions regarding their false positive capability and the abuses of the rights of music. It is possible to maintain and protect copyright while respecting the rights of the creators and users through checking on the AI systems to conform to the laid down ethical standards of the society.

### **Legal and Policy Implications**

It is critical to revise existing legal instruments with an aim of fixing the ethical issues of AI in IP law. This encompasses the process of modifying existing IP laws to include clauses on the use of ethical AI, developing measures relevant to the reduction and management of bias, and setting up policies to determine fairness of AI-based IP operations. This means that more focus needs to be placed on proportionality since one of the main challenges policymakers face is trying to foster the creation and distribution of new work and protect creators and inventors' rights sufficiently.

### **International Harmonization**

---

<sup>49</sup>Richard A. Posner, *Economic Analysis of Law* 78-82 (9th ed. 2014).

Thus, the international synchronization of ethical norms and standards for the use of AI and IP systems is necessary due to their globalization. This means that variabilities in the use of ethical approaches in AI development lead to legal risks and hinder development. As it is mentioned before, there is a necessity for collaboration between different IP offices, policy makers and other related parties to build up common norms and good practices.

### **Policy Recommendations**

The following policies have therefore been suggested in order to tackle the ethical issues of artificial intelligence in IP law. As Floridi et al. (2018) pointed out, one could and should work on the elaboration of more ethical paradigms that include the fair, transparent, and accountable ways. This involves development of other regulatory authorities for deployment of artificial intelligence in management of IP and also integrating process of audit for checking or discovering bias and unfair outcomes from artificial intelligence systems in management of IP.

Furthermore, the key theme of developing AI along with the collaboration of IP specialists and policymakers is crucial to address and avoid negative or malicious exploitation of AI technologies. This entails supporting research on ethical IA technologies, sharing information with professionals on AI, and developing discussion forums for knowledge sharing and networking concerning the application of IA in the protection of IP rights.

The integration of AI into IP law presents significant ethical challenges, particularly concerning bias and fairness. Ensuring that AI systems used in IP management are ethical and fair is crucial for maintaining the integrity of the IP system and promoting innovation. By examining case laws, examples, and expert opinions, this discussion highlights the need for updated legal frameworks and ethical guidelines to address the unique challenges posed by AI.

As AI continues to evolve, it is essential that IP laws and policies adapt to ensure that AI-driven IP processes are transparent, fair, and conducive to innovation. Through harmonized international regulations and collaborative efforts, stakeholders can navigate the complexities of AI and IP, paving the way for a more ethical and equitable IP system. The ethical deployment of AI in IP law holds great promise, but it also requires careful consideration of bias and fairness to fully realize its potential.

### **Future Directions and Policy Recommendations**

- a) As AI technology continues to advance, adapting existing IP laws is imperative to address the unique challenges posed by AI-generated works. This adaptation involves redefining concepts of authorship and inventor-ship to include AI systems or establishing new categories of IP protection for AI-generated content. A comprehensive approach should consider the following directions:
- b) IP laws should be updated to include provisions that recognize AI systems as co-creators or intermediaries. This would involve establishing criteria for determining the extent of human involvement in AI-generated works and assigning appropriate rights to both AI developers and users.
- c) Introducing new categories of protection for AI-generated works can provide clarity and ensure that such works are adequately protected. For example, a distinct category could recognize AI-generated inventions and creative works, with rights assigned based on the level of human contribution and AI involvement.
- d) Developing ethical guidelines and standards for AI in IP law is crucial. These guidelines should address issues of bias, transparency, and accountability, providing a framework for the ethical use of AI in IP processes. International organizations like WIPO can lead efforts to establish these standards and ensure consistent application across jurisdictions.

### **Enhancing Transparency and Accountability**

Ensuring transparency and accountability in AI systems used for IP management is essential for building trust and preventing misuse. Key steps include:

- i. AI systems should be designed to provide clear explanations of their decision-making processes. This transparency allows users to understand how decisions are made and provides a basis for challenging and correcting erroneous decisions.
- ii. Conducting regular audits and evaluations of AI systems can help identify and correct biases. These audits should assess the performance of AI systems in different contexts and ensure that they operate fairly and accurately.
- iii. Incorporating human oversight into AI-driven IP processes is crucial for maintaining accountability. Human experts should review AI-generated decisions, especially in cases

involving complex legal and ethical considerations. Establishing mechanisms for challenging and correcting AI decisions is essential for upholding fairness and justice.

### **Promoting Innovation and Collaboration**

To fully realize the potential of AI in IP management, fostering innovation and collaboration among AI developers, IP professionals, and policymakers is essential. This includes:

1. Supporting research and development of advanced AI tools can enhance the efficiency and accuracy of IP management. Investments should focus on developing AI systems that are inclusive, transparent, and fair.
2. Providing training for IP professionals on AI technologies is crucial for ensuring that they are equipped to handle the complexities of AI-driven IP processes. This training should cover ethical considerations, bias mitigation, and the technical aspects of AI systems.
3. Establishing platforms for knowledge exchange and collaboration can facilitate the sharing of best practices and promote innovation. These platforms can bring together AI developers, IP professionals, and policymakers to address common challenges and develop solutions for the ethical use of AI in IP law.

### **Policy Recommendations**

#### **International Harmonization**

Given the global nature of AI and IP systems, international harmonization of ethical guidelines and standards is crucial. Differing approaches to ethical AI use can create legal uncertainties and barriers to innovation. International cooperation among IP offices, policymakers, and stakeholders is essential for developing consistent standards and best practices.

#### **Developing Ethical Frameworks**

Policymakers should prioritize the development of ethical frameworks that ensure fairness, transparency, and accountability in AI-driven IP processes.<sup>50</sup> This includes:

1. Establishing regulatory bodies to oversee the deployment of AI in IP management can ensure that AI systems are used ethically and fairly. These bodies can conduct audits, provide guidance, and enforce compliance with ethical standards.

---

<sup>50</sup>ProPublica, *Machine Bias*, ProPublica (May 23, 2016), <https://www.propublica.org/article/machine-bias-risk-assessments-in-criminal-sentencing>

2. Developing and implementing strategies to mitigate bias in AI systems is crucial for ensuring fair and equitable IP protection. This includes using diverse and representative training data, regularly auditing AI systems, and incorporating human oversight.
3. Policymakers should establish guidelines for algorithmic transparency and accountability. AI systems should provide clear explanations of their decision-making processes, and there should be mechanisms for challenging and correcting erroneous decisions.

### **Fostering Collaboration**

Promoting collaboration among AI developers, IP professionals, and policymakers is essential for addressing the ethical challenges of AI in IP law. This includes:

1. Supporting research and development of ethical AI tools can enhance the efficiency and accuracy of IP management. Investments should focus on developing AI systems that are inclusive, transparent, and fair.
2. Offering training and education for IP professionals on AI technologies is crucial for ensuring that they are equipped to handle the complexities of AI-driven IP processes. This training should cover ethical considerations, bias mitigation, and the technical aspects of AI systems.
3. Establishing platforms for knowledge exchange and collaboration can facilitate the sharing of best practices and promote innovation. These platforms can bring together AI developers, IP professionals, and policymakers to address common challenges and develop solutions for the ethical use of AI in IP law.

### **Conclusion**

The integration of AI into IP law presents significant opportunities and challenges. AI systems have the potential to enhance the efficiency and accuracy of IP management, promoting innovation and protecting creators' and inventors' rights more effectively. However, the ethical challenges posed by AI, particularly concerning bias and fairness, must be carefully addressed to ensure that AI-driven IP processes are transparent, fair, and equitable.

By examining case laws, examples, and expert opinions, this discussion highlights the need for updated legal frameworks and ethical guidelines to address the unique challenges posed by AI. Adapting existing IP laws to recognize AI-generated works, enhancing transparency and accountability in AI systems, and fostering innovation and collaboration among stakeholders are essential steps for navigating the complexities of AI and IP. As AI continues to evolve, it is crucial that IP laws and policies adapt to ensure that the IP system remains fair, transparent, and conducive to innovation. Through harmonized international regulations and collaborative efforts, stakeholders can navigate the complexities of AI and IP, paving the way for a more ethical and equitable IP system. The ethical deployment of AI in IP law holds great promise, but it also



requires careful consideration of bias and fairness to fully realize its potential. Thus, the ethical use of AI in IP law is not only a legal and technical challenge but also a moral imperative. Ensuring that AI systems are designed and implemented in ways that are fair, transparent, and ethical is essential for maintaining the integrity of the IP system and promoting a vibrant and inclusive innovation ecosystem. By addressing the ethical challenges of AI, we can create a future where AI-driven IP processes enhance creativity and innovation while protecting the rights of all stakeholders.



Statement about the Ownership and other Particulars of the Journal

**Name of the Journal:** JSS Journal for Legal Studies and Research [ISSN 2321-4171]

URL: <https://www.jsslawcollege.in/jsslc-online-journal/>

Place of Publication – Mysuru

Periodicity of Publication – Special Issue 2024

Publishers Name – JSS Law College, Autonomous, Mysuru, Affiliated to Karnataka State Law University, Huballi

Editor's Name, address & Ownership:

JSS Law College (Autonomous)

New Kantharaje Urs Road, Kuvempunagar

Mysuru-570 023, INDIA

Website: [www.jsslawcollege.in](http://www.jsslawcollege.in)

Email: [principal@jsslawcollege.in](mailto:principal@jsslawcollege.in)

Office no: 08212548244

I, Dr. N. Vani Shree hereby declare that the particulars given above are true to the best of my knowledge and belief.

**PATRON & ASSOCIATE EDITOR**

Dr. N. Vani Shree

Principal,  
JSS Law College, Autonomous, Mysuru



**JSS Law College**

Autonomous  
Kuvempunagar, Mysuru

ಜೆ.ಎಸ್.ಎಸ್. ಕಾನೂನು ಕಾಲೇಜು  
JSS LAW COLLEGE

ಜೆ.ಎಸ್.ಎಸ್. ಕಾನೂನು ಕಾಲೇಜು  
ಸ್ವಾಯತ್ತ  
J.S.S. LAW COLLEGE  
AUTONOMOUS

# JSS Journal for Legal Studies and Research

[ISSN 2321-4171]

A Peer-Reviewed Journal

[/https://www.jsslawcollege.in/jsslc-online-journal](https://www.jsslawcollege.in/jsslc-online-journal)

**JSS Law College (Autonomous)  
New Kantharaje Urs Road, Kuvempunagar  
Mysore-570 023, INDIA**

**Website: [www.jsslawcollege.in](http://www.jsslawcollege.in)**

**Email: [principal@jsslawcollege.in](mailto:principal@jsslawcollege.in)**

**Office no: 08212548244**