THE EMERGENCE OF AI AND ITS WAVES IN IPR: a critical analysis of the developing technology in law

AI Disclosure Statement

"*The author used an AI-assisted writing tool solely for language editing and grammar refinement. All legal research, analysis, and conclusions presented in this manuscript are the author's own work.***"**

ABSTRACT

The emergence of Artificial Intelligence is both a boon and a bane in the field of law. This research article aims to provide a clear and concise review of this rapidly evolving technology specifically in the field of Intellectual Property Rights, AI is increasingly being recognized as a transformative force in law but the advantage comes with challenges to tackle and ultimately results in need for restrictions and limitations for restricting unchecked use of AI.

Artificial intelligence (AI) already has some history in the legal profession, some lawyers have been using it for the better part of a decade to parse data and query documents, today, some lawyers also use AI to automate routine tasks such as contract review, research, and generative legal writing, on one hand AI will be useful for regulating and marking innovations and discoveries while also on the other hand impose a peril to creativity and morality. This article is approached by using an ethical, social-legal research methodology, with a thorough examination of existing IPR law, court rulings in various cases, academic theories and debates and provide possible reforms with India specific approach.

Keywords: Artificial Intelligence, Intellectual Property Rights, Patent law, Copyright, Trademark, Digital Governance.

I. INTRODUCTION

Intellectual property rights have grown to a position from where they play an important role in the global economy's development over the past two decades. And with the rise of digital economy, the regulation of IPR laws has become more necessary than ever,

In 1856, the Patent Act was introduced in India and remained in force for more than 50 years which was later modified and revised and was called "The Indian Patents and Designs Act, 1911". A complete bill on patent rights was enacted after Independence in the year 1970 and was called "The Patents Act, 1970". Specific statutes protected only specific type of intellectual output, till very recently only four forms were protected, the protection was in the form of grant of designs, patents, trademarks and copyrights. In India, copyrights were regulated under the *Copyright (Amendment)Act, 2012*, trademarks under *The Trade Mark Act, 1999*, for patents the governing statute is the *Patents Act, 1970* (as amended in 2005), and designs under *Designs Act, 2000* and *The Geographical Indications of Goods (Registration and Protection) Act, 1999*.[1]

While AI is defined in Section 2 clause (a) of The Artificial Intelligence (Ethics and Accountability) Bill, 2025, by a private member in Lok Sabha as,

"2. In this Act, unless the context otherwise requires, — (a) "Artificial Intelligence (AI)" means computer systems or applications capable of performing tasks that typically require human intelligence, including but not limited to decision-making, language processing and visual perception"[2]

It proposes a statutory Ethics Committee for AI, mandatory ethical reviews, especially for surveillance and high-risk systems, bias audits, developer obligations, restrictions on certain AI uses in law enforcement/employment, grievance mechanisms, and penalties up to ₹5 crore. While not yet enacted, it signals growing parliamentary interest in binding accountability and

[1] Ajay Thakur, *All You Need to Know About the IPR Laws in India*, iPleaders, (last visited July 9, 2026) https://blog.ipleaders.in/need-know-ipr-laws-india/ (on file with author)

[2] Smt. Bharti Pardhi, M.P, *The Artificial Intelligence (Ethics And Accountability) Bill, 2025*, Digital Sansad, (10 July, 2026) https://sansad.in/getFile/BillsTexts/LSBillTexts/Asintroduced/59%20of%202025%20AS125202594603PM.pdf?source=legislation (archived at https://web.archive.org/web/20260710/https://sansad.in/getFile/BillsTexts/LSBillTexts/Asintroduced/59%20of%202025%20AS125202594603PM.pdf?source=legislation)

could influence future policy or be incorporated into broader legislation. This is also displayed by the fresh provision of REGULATIONS FOR USE OF ARTIFICIAL INTELLIGENCE IN COURTS, 2026 (Draft).

II. LEGAL FRAMEWORK OF AI

AI in India has no legal status. This absence has led to the incoming of demands for it to be defined, regulated and limited. Furthermore, there is no independent authority which overlooks the use of AI in India; hence, the legal framework is based on a combination of both non-binding AI Governance Guidelines along with existing laws to govern IPR, privacy, data, etc.,

The rapid advancement of Artificial Intelligence (AI) is creating opportunities for innovation but also poses governance challenges, owing to AI's rapidly evolving, adaptive, and borderless nature, conventional regulatory approaches are proving inadequate, in response to the regulatory gaps posed by AI's unique characteristics, policymakers around the world are exploring various methods to govern AI in a manner that harnesses the innovation potential while also safeguarding social and ethical values. India requires an AI governance framework that is pro innovation yet robust enough to protect society from associated risks and harms.[3]

Here the policy framers are seeking to strike a balance between the rising use of AI when it comes to innovations and also the safeguard the public's rights and interest against the deceptive use of AI. A techno-legal approach has been preferred to unlock the value of technological innovations for India while ensuring safety and responsible adoption of AI towards the country's population, it is a framework to use technology the right way with right controls to achieve the dual objectives of "innovation and safety" rather than "innovation vs safety", this approach would also require the participation of public with their interpretations and law which would enable innovation with adequate safeguards. A set of rules would also be needed to provide the means and exemptions to the use of AI, and an independent regulatory board which would address the grievances of the public, provide ample solutions and mitigate their concerns about AI encroaching their interests.

[3] *Office of the principal scientific advisor to the government of India, Strengthening AI Governance Through Techno-Legal Framework*, principal scientific advisor, https://psa.gov.in/CMS/web/sites/default/files/publication/AI-WP_TechnoLegal.pdf (last visited 10 July 2026), archived at https://web.archive.org/web/20260718/https://psa.gov.in/CMS/web/sites/default/files/publication/AI-WP_TechnoLegal.pdf

The key legal issues where each country with rapidly evolving technology need to be focus on and which this article will cover are, authorship and ownership which if acted against upon encroaches public faith on the governance and judiciary, AI training which is done through analyzing millions of data which raises concerns of copyright infringement, Patent rights, Trademarks, and standards to be applied to distinguish originality of a human with works of AI.

III. AI AND COPYRIGHT LAW

The transition into the digital age has fundamentally transformed the landscape of intellectual property (IP). While IP law traditionally focused on tangible creations like physical inventions, printed works, and brick-and-mortar trademarks it now encompasses a vast array of intangible, digital assets that drive the modern tech economy[4]. The digital age has fundamentally strained the traditional framework of copyright protection for creative works. Because digital content can now be perfectly replicated and distributed instantly worldwide, enforcing creators' rights has become an uphill battle. The rise of piracy, unauthorized file sharing, and content aggregation platforms that profit off others' work has systematically eroded the revenue streams and legal control of content creators. As AI is providing new forms of creating and distributing material, Copyright Law is facing new challenges to regulate and safeguard previously created works.

Copyright is the right given to individuals to protect their original and creative works. It is given on works like literary, dramatic, musical, artistic work and cinematographic films and sound recordings. In today's digital age, copyright infringement has become very common due to easy access to the internet and social media. Warner Bros. Entertainment Inc., Columbia Pictures Industries, Inc., Disney Enterprises, Inc., Netflix US, and some other websites, have all received a dynamic+ injunction order against 64 websites showing pirated content from the Delhi High Court to safeguard their copyrighted works[5],

To counter online piracy, courts frequently rely on the landmark precedent set in *UTV Software Communication Ltd. & Ors. v. 1337X.to & Ors*[6], in this seminal ruling, the Delhi High Court issued a decisive verdict against digital copyright infringement, establishing clear criteria for

[4] *Migle Laukyte & Nicola Lucchi*, *Creative AI: The Complex Relationship Between Human Inventiveness and Intellectual Property*, 2022 BioLaw J. 169.
[5] *Warner Bros. Entertainment Inc. & Ors v. Moviesmod.Bet*, CS(COMM) 738/2024 (Delhi HC Aug. 30, 2024) (India)
[6] *UTV Software Communications Ltd. v. 1337x.to*, 2019 SCC OnLine Del 8002 (India).

targeting "hydra-headed" or "mirror" websites. By introducing the concept of dynamic injunctions, the judgment provided a robust framework to block these elusive, multiplying sources of piracy without requiring fresh litigation for every new domain. A small quantity of human authorship necessary by copyright law must be attained in order for a work to be protected. Since AI systems produce content based on already-existing data, concerns about the originality of AI-generated works may arise [7].

The fair use doctrine is an essential statutory exception that allows unauthorized, limited use of copyrighted material for transformative purposes like criticism, news reporting, education, and research. However, the rise of artificial intelligence has deeply complicated this framework. Because AI developers rely on vast repositories of protected content to train their models, courts are increasingly forced to decide whether using copyrighted data for AI training can be legally shielded by a fair use defense. In most jurisdictions, copyright law requires human authorship, for example, in the United States the U.S. Copyright Office has stated that it will “register an original work of authorship, provided that the work was created by a human being”. In the European Union the Court of Justice of the European Union has held that copyright protection applies to works that are the author's own intellectual creation, implying human involvement, and in the United Kingdom, The Copyright, Designs and Patents Act 1988 provides that for computer-generated works, the author is "the person by whom the arrangements necessary for the creation of the work are undertaken." This approach offers a potential model for attributing authorship in AI-generated works, although there are certain challenges such as a on whom the authorship will be attributed, and who will be the owner of the rights, the AI developer, user or the AI machine itself, and whether the standard copyright term is applicable to AI creations.

IV. AI AND PATENT LAW

If copyright law is struggling with AI's threat to artistic expression, patent law faces an equally disruptive challenge to its technical foundations, today, the relationship between artificial intelligence and patent law is gaining significant traction as AI is proving to be an invaluable utility in the patent ecosystem, optimizing search tools and allowing inventors to screen for similar concepts at the earliest stages of development, however, because patent systems are

[7] Jan Smits, and Tijn Borghuis, *Generative AI and Intellectual Property Rights,* In Law and Artificial Intelligence: Regulating AI and Applying AI in Legal Practice, 323, (T.M.C Asser Press, 2022)

fundamentally built around human ingenuity, they face a theoretical crisis as AI advances to a point where it can autonomously generate complex inventions without human input.

Patent law gives creators the only right to make use of their inventions, fostering innovation and advancing technology, it provides inventors with the exclusive right to make, use, and sell their inventions for a limited time in exchange for public disclosure of the invention,

consequently, the patent system faces a fundamental debate over whether AI can hold inventor status, and whether its autonomous creations qualify for patent protection. On one hand, many legal experts maintain that because AI lacks the cognitive or human intent and creative spark necessary to the legal definition of inventorship, it should not be granted inventor status, on the other hand, some commentators suggest that legally recognizing AI as an inventor would act as a powerful catalyst, encouraging further investment and progress in AI-driven research[8]

The DABUS case is a prime example of how the law navigated the balancing of patent rights of a developer and AI. In U.K, Dr. Thaler contended that being an owner of a machine, he is eligible to apply for patents on behalf of DABUS, Thaler also argued that he satisfied the requirements envisaged under Section 13(2) of the Patent Act and therefore Comptroller had no basis to refuse these patent applications. On the other side, the Comptroller supports the majority decision of Court of Appeal and reiterated that inventor must be a person for the purpose of Sections 7 and 13(2)(a) of the Act and Thaler failed to identify a person, therefore these patent applications were withdrawn properly for non-compliance of the Act, The Supreme Court confirmed that a person alone claims a right on the basis of ownership of a machine under the 1977 Act, in the Indian perspective it was held that the DABUS cannot be considered as a person under section 2 and not comply with the patentability requirements stated in section 6 and other provisions in the Indian Patents Act of 1970. [9]

At the heart of modern patent law is the question of whether AI driven creations deserve inventorship status, a dilemma that introduces the complex challenge of AI personhood to the field, the United Nations Governing AI for Humanity interim report reminds us that AI should be governed inclusively, by and for the benefit of all. The deployment of AI in research and

[8] E. Chikhaoui and S. Mehar*, Artificial intelligence (AI) collides with patent law,* 23 J. Legal Ethical & Regul. Issue 1 (2020)

[9] A. Saravanan & M. Deva Prasad, *AI as an Inventor Debate under the Patent Law: A Post-DABUS Comparative Analysis*, 47 Eur. Intell. Prop. Rev. 26 (2025), (last visited 12 July, 2026), http://dx.doi.org/10.2139/ssrn.5053108

development should not operate to the exclusion of human labor and the recognition of human effort, given that intellectual property protections are historically justified by the personal labor of human creators not just economic utility and raw productive efficiency, protecting human creativity and originality from being sidelined is paramount. Therefore, any step toward enabling AI personhood must depend on the making of a balanced, globally applicable, and responsible AI governance framework.

V. AI AND TRADEMARK LAW

Trademarks are used to protect distinctive signs, symbols, or names that identify goods or services from a particular source and distinguish them from others, within competitive markets, a trademark serves as the foundation of corporate branding, forming a company's identity, values, and reputation, distinctive brand names and logos cultivate immediate consumer recognition and trust on the company, consequently, securing this asset through trademark registration is vital to establishing exclusive legal rights and mitigating the risk of unauthorized use.

However, the coming of the digital age has posed new difficulties in cultivating the potential of Trademark Law and its protection with respect to AI generated creations. Using AI to brainstorm and design trademarks is becoming the norm, but it introduces a massive legal gray area, it forces us to ask, should an algorithm-generated brand even qualify for trademark protection, and how do you prove it's truly unique?

AI operates in a black box. When it generates a logo or a brand name, it maybe recycling a slightly altered version of an existing, protected trademark it absorbed during training. In trademark law, the assertion that a mark was generated by an algorithm is not a valid legal defense, if an AI-generated mark causes consumer confusion with an established brand, one might face immediate liability for infringement, forced rebranding costs, and potential lawsuits, regardless of their intent, this is the reason why human work is preferred for its originality and uniqueness, IP experts often argue that algorithms lack the genuine human intent and creativity needed to build a truly unique trademark. On the other hand, many contend that as long as an AI-assisted mark does its core job standing out in the market and clearly pointing consumers to the right brand, it deserves legal protection, given that AI has the potential to assess trademark

similarity and likelihood of confusion more accurately than traditional methods, and it also conducts more comprehensive trademark searches and streamline the registration process.

VI. JUDICIAL INTERPRETATIONS

The Copyright Act 1957 lacks provisions for AI-generated content, creating uncertainty for both creators and technology companies. Section 27(2) of the Trade Marks Act, 1999 states that nothing in the Act shall affect the right to take or continue an action against another for passing off, in other words, the Act says that it does not stop anyone from taking legal action against someone who wrongly passes off someone's goods/ services as their own, this protection covers even unregistered trademarks or distinctive artistic styles from unauthorized use if such use causes confusion or misrepresents the origin of goods or services. Under Sections 2(d), 3, and 15 of the Indian Designs Act, 2000, protection is granted to new and original designs defined by their visual features applied to articles through industrial processes, giving the registered owner exclusive rights to use and commercialize such designs, this framework safeguards the ornamental aspects of products but requires novelty and industrial application for registration and enforcement.[10]

India's Patents Act contains no explicit provisions addressing AI inventorship. The statute presumes that inventors are natural persons capable of executing applications and bearing inventorship responsibilities. Current practice follows traditional human inventorship requirements, leaving substantial uncertainty regarding patent eligibility for autonomous AI generated inventions.

In the landmark RAGHAV Case or *Raghav v. Union of India*[11], an Indian developer used his AI tool (RAGHAV) to create an artwork titled "Suryast", The Indian Copyright Office initially registered the artwork, listing the AI tool alongside the human creator as a co-author. However, this remains a unique exception, as Indian copyright law generally attributes authorship solely to

[10] *Astha Ojha*, *AI & Copyright in India: Law, Policy, and the Future of Creative Rights*, national e-governance division, (last visited 12 July 2026), https://negd.gov.in/wp-content/uploads/2025/10/Astha-Ojha-AI-Copyright-in-India-Bridging-the-Digital-Divide.pdf, archived at https://web.archive.org/web/20251000000000/https://negd.gov.in/wp-content/uploads/2025/10/Astha-Ojha-AI-Copyright-in-India-Bridging-the-Digital-Divide.pdf

[11] *Raghav v. Union of India*, 2024 DHC 1332 (W.P.(C) 2415/2024)

natural persons, here the initial copyright recognition was later withdrawn due to unclear legal standing of AI co-authorship,

Global approaches to deal with copyright protection for AI generated works vary significantly, from the US's strict human authorship requirement to China's progressive recognition of AI-generated works with demonstrable human intellectual effort. This divergence complicates cross-border AI development and content licensing.

In the US, courts have consistently protected the human element of creativity. For instance, *Thaler v. Perlmutter* [12]denied copyright protection to artwork generated by the DABUS AI system. These disputes challenge a long-standing American precedent set by *Authors Guild v. Google Inc.*[13], in that case, the Second Circuit ruled that digitizing books for a searchable database was a non-commercial, transformative "fair use" that did not replace the market for the original books, a ruling that AI developers now heavily rely on to justify text and data mining.

A similar battle is now unfolding in India. In *ANI Media Pvt. Ltd. v. OpenAI Inc.*[14], the Delhi High Court is grappling with claims that OpenAI trained ChatGPT on copyrighted news articles without permission, this case forces the court to decide how copyright infringement, the fair dealing exceptions under Section 52 of India's Copyright Act, and cross-border jurisdiction apply when algorithms ingest global data.

In December 2023, MeitY issued its first advisory on due diligence under the Intermediary Guidelines and the IT Act, focusing on misinformation and deepfakes. This was followed by the March 1, 2024 Advisory (“Old Advisory”), which for the first time expanded the scope to AI-specific regulations. It introduced provisions such as mandatory prior Government approval for deploying under-tested or unreliable AI tools, labelling requirements, and reporting obligations to MeitY

And the release of *“Regulation for use of Artificial Intelligence in India”* (draft) by Supreme Court of India also is a step forward to the inclusion of AI in IPR and other laws of the country. Section 17 of the draft states; *(1) the adoption of Artificial Intelligence in Court processes shall be pursued, in a responsible manner, as a catalyst for impactful innovation in the justice delivery*

[12] *Thaler v. Perlmutter*, No. 22-cv-01564 (D.D.C. Aug. 18, 2023)
[13] *Authors Guild v. Google, Inc.*, 804 F.3d 202 (2d Cir. 2015)
[14] *ANI Media Pvt. Ltd. v. OpenAI Inc. & Anr.*, CS(COMM) 1028/2024 (Delhi HC) (India)

system; and the exploration, development and integration of AI Systems and AI Tools that demonstrably further the goals of judicial efficiency and easy access to justice shall be actively encouraged.

(2) All innovation under sub-regulation (1) shall be carried out with due regard to the other general principles set out in this Chapter, so as to maximize the overall benefit of AI adoption while eliminating or minimizing potential harm; and, all other things being equal, an approach that prefers active and responsible adoption over restraint shall be encouraged[15].

It also has provisions for permitted and prohibited use of AI along with auditing, management, grievance redressal, transparency and emergency protocols.

VII. CONCLUSION

The crossroads where Artificial Intelligence meets Intellectual Property law is easily one of the most complex, fast-moving areas in both technological and legal theory today. Safeguarding IPR against the advent of AI is still a work in progress, and is presented with a lot of challenges as applying traditional concepts of IPR to AI entails complications like who will claim authorship or ownership, originality, who will take up the liability in case of infringement, what will jurisdiction be on AI related cases, etc., these are the knots that needs remedies and clarifications.

On the other hand, AI can be a boon in the field of IPR too, as it can help in regulating and identifying duplicates in the market, provide speedy solutions, etc., still there is a need for a comprehensive policy governing the AI system. There could be reforms where AI could be designated as co-inventors or there could be regulation in copyright law where human creativity takes first priority and AI can be given limited rights. AI developers should strive for transparency and disclose whether AI has been adopted or not and a strict verification should be done for the same. The law should be updated to permit certain AI uses under specific conditions, while also enabling creators to license their works efficiently for training purposes.

Reinforce trademark protection and creations where misuse can be efficiently prevented. Global cooperation is needed where there can interchange of technological know-how and formation of

[15] *Regulation for use of Artificial Intelligence in Courts* (draft), Supreme Court of India, 2026, (last visited 12 July 2026), 2026060342.pdf

strategies as making of a strong accountability framework is needed to prevent fraudulent use of AI, and the ethical use of AI should be given relevance where developers and users conform to an ethical and moral standard of AI exploitation.

Together, these recommendations offer a solid framework for navigating the unique opportunities and challenges AI brings to intellectual property. By putting these strategies into action, we can build a fair, balanced IP system, one that encourages new creativity while genuinely protecting the rights of creators and innovators in the AI era.