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AI-DRIVEN INTELLECTUAL PROPERTY AND ITS INFRINGEMENTS: AN ANALYSIS OF INTERNATIONAL AND INDIAN LAWS

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ABSTRACT

The rapid growth of generative artificial intelligence (AI) has revealed serious cracks in the intellectual property (IP) systems adopted globally, putting into question the very foundations of human-centred legal frameworks that have governed innovation for more than a century. This article evaluates whether India's IP laws-Copyright Act (1957), Patents Act (1970), and Trademarks Act (1999)-and germinal treaties such as the Berne Convention and the TRIPS Agreement-encompass AI-related infringements through the case study of ANI Media Pvt. Ltd. v. OpenAI Inc. & Anr, where an AI tool allegedly reproduced copyrighted news content verbatim. The analysis reveals systemic gaps: India's Patent Act fails to define inventorship for AI-human collaborations, its Copyright Act ambiguously attributes liability for AI outputs, and trademark law struggles against algorithmic counterfeiting. Drawing parallels with the EU's AI Act (2024) and Japan's data mining exceptions, the article argues for urgent legal reforms to (1) impose strict liability on AI developers for infringements traceable to training data, (2) redefine "inventive step" and "originality" to acknowledge AI's role in innovation, and (3) establish global standards for transparency in AI training datasets, the study underscores the existential choice facing policymakers: adapt IP laws to hold AI accountable as both a tool and a disruptor, or risk rendering decades of human-centric protections obsolete in the algorithmic age.

INTRODUCTION

The dawn of sophisticated artificial intelligence tools has ignited a global debate, one that strikes at the heart of established legal frameworks. The real debate has at its core a single important question: how are existing intellectual property laws meant to apply to human creators involved in such activities, confronted by those forms of creativity mastering artificial intelligence? This tension culminated on September 8, 2024, following the filing of a suit by ANI Media Pvt. Ltd. against tech behemoths OpenAI Inc.¹ Their claim? ChatGPT, a cutting-edge AI tool, was systematically utilising ANI's proprietary news content without authorisation. The implications of ANI's allegations – that ChatGPT was generating detailed summaries, at times mirroring the content verbatim despite its placement behind a paywall – extend far beyond a single lawsuit. This case, which the Delhi High Court began hearing on November 19, 2024, with proceedings continuing through March 18, 2025, and which the court itself recognised as increasingly intricate, directly confronts the core principles of copyright in the digital age. An OECD report named "INTELLECTUAL PROPERTY ISSUES IN ARTIFICIAL INTELLIGENCE TRAINED ON SCRAPED DATA" plunges further into the hunt and concern over intellectual property rights in this age of rampant AI data scraping. Data aggregation, as an everyday practice of AI, sneaks under the fence for the companies processing data around its special protective measures to scramble incredibly huge datasets, nearly always without any kind of licensing or transparency along the way. Kinds of problems that sprout as consequences include AI systems producing outputs that are suffocatingly similar to copyrighted works, hence prompting huge infringement setbacks. Further deterioration of this type comes in the form of data disclosure for datasets, as it dropped to 20% in October 2023 and to just 7% by May 2024, which mirrors the growing implications of the uncertainty of using legal litigation as an excuse. As it has broadened concerns to touch other issues such as privacy or patent eligibility, the OECD report does so deliberately to exclude these wider-range issues from its definition of intellectual property concerns. That underlines the IP-directed venue for which the AI has thrown.² Indian intellectual property legislation, such as the Copyright Act of 1957, the Trademarks Act of 1999, the Patents Act of 1970, the Designs Act of 2000, and the Geographical Indications Act of 1999, operate within an expressly human-

¹ ANI Media Pvt. Ltd. v. Open AI Inc. & Anr., 2024 SCC OnLine Del 8120

² O.E.C.D., Intellectual Property Issues in Artificial Intelligence Trained on Scraped Data, OECD Artificial Intelligence Papers (2025), available at https://www.oecd.org/content/dam/oecd/en/publications/reports/2025/02/intellectual-property-issues-in-artificial-intelligence-trained-on-scraped-data_a07f010b/d5241a23-en.pdf (last visited Apr. 1, 2025)

centric perspective. Such legislations ordinarily confer exclusive rights on creators, inventors, and businesses while incorporating exceptions such as fair use and compulsory licensing to benefit the public good. Emergence of AI-enabled infringements under intellectual property, however, undercuts fundamental assumptions of this construct. The laws struggle to accommodate AI as a legal actor, grapple with the ambiguous legality of AI training data, and lack clear guidelines on liability for AI-generated outputs that may infringe existing rights. On the other hand, there are specific sector legislation such as the IT Act of 2000 and the DPDP Act of 2023, which do not have specific provisions regulating the way AI is going to make use of personal or copyrighted data. Internationally, key intellectual property frameworks seek to harmonize IP standards, action for innovational advancement, and international enforcement while making a balance between rights holders' interests and public access.³ These treaties only entail member states, including India, to protect copyrights, patents, trademarks, and trade secrets, enact anti-piracy measures, and adopt exceptions like fair use. Lacking, importantly, however, are provisions specifically tailored to address challenges unique to infringement of IP by AI applications. These international agreements fall short by not recognizing AI as an author or inventor (potentially contravening TRIPS' human-centric Article 27 or Berne's authorship norms), by failing to clarify accountability for the scraping of copyrighted data for AI training (a key concern under the WCT's digital rights provisions), and by not establishing clear liability for AI-generated outputs. Further in this article, we will discuss the historical background of both Indian laws and international laws and then highlight the key concerns of international laws and Indian laws related to the lack of Legal Accountability for AI-driven intellectual Property Infringements.

HISTORICAL BACKGROUND

In 1950, English mathematician and computer scientist Alan Turing raised the question: Can machines think or not? In his paper titled 'Computing Machinery and Intelligence,' Turing provided what is known today as the Turing Test, an idea to determine whether a machine could be said to think. The years spanning the emergence of the first digital machines witnessed the birth of the now-legendary Turing test; hence, the term "artificial intelligence" was yet to be coined. This very name, artificial intelligence, was attached to the new concept some years after Turing's death. Thus, the Dartmouth Conference is justly referred to as the birth moment of the discipline of Artificial Intelligence. The ostensible purpose of the conference was to

³ World Intellectual Property Organization (WIPO), WIPO-Administered Treaties, <https://www.wipo.int/treaties/en/> (last visited April 18, 2025).

determine the methods of constructing machines that can use language, form abstractions and concepts, solve kinds of problems now reserved for humans, and improve themselves. John McCarthy is given credit as the father of Artificial Intelligence. The American-born father of Artificial Intelligence coined the term.”⁴

INDIAN LAWS

Different types of intellectual property include patents, copyright, trademark, industrial design, geographical indications and business secrets.⁵ The Patents Act of 1970 is an Act that has been amended many times, including in 1999,⁶ 2002,⁷ and 2005,⁸ that provides the framework for granting, enforcing, and administering patent rights in the country. The Patents (Amendment) Act, 2002 has built up the legal framework of India to meet global standards in WTO and TRIPS obligations by modifying explicit mechanisms for licensing, regulation and adjudication of patent rights. With the development of a technology that can produce and disseminate its content with minimal human involvement, yet another particular challenge comes into play: the absence of legal accountability for infringement of intellectual property rights perpetuated through AI. Though the 2002 amendment empowered regulatory authorities like the Controller and Appellate Board to resolve human-related IP disputes, it did not envisage a scenario wherein AI systems could independently infringe copyrights or patents. This gap underlines the urgent necessity for revised legal frameworks that should not only include traditional human acts but also put AI developers, users, and platforms in the drift where AI infringes intellectual property rights, ensuring that the 2002 reforms' goals will also be fulfilled in the new age of AI.⁹ The Patents (Amendment) Act 2005 provided for product patent protection in respect of pharmaceuticals and agricultural chemical products that were automatically patent-protected. The amendment recognised the need for bringing Indian laws into consonance with international standards and enhancing the country's attractiveness for foreign investment, thereby strengthening its position in trade. This amendment puts some

⁴ Lawrence Livermore National Laboratory, The Birth of Artificial Intelligence (AI) Research, <https://st.llnl.gov/news/look-back/birth-artificial-intelligence-ai-research> (last visited Apr. 10, 2025).

⁵ WIPO, WHAT IS INTELLECTUAL PROPERTY? (2020) available at https://www.wipo.int/edocs/pubdocs/en/wipo_pub_450_2020.pdf (last visited 11 April, 2025)

⁶ The Patents (Amendment) Act, 1999, S. 1.

⁷ The Patents (Amendment) Act, 2002, S. 1

⁸ The Patents (Amendment) Act, 2005, S. 1

⁹ Ministry of Law, Justice & Company Affairs, PRESIDENT'S ASSENT TO PATENTS (AMENDMENT) BILL (2002) available at: <https://archive.pib.gov.in/release02/1yr2002/rjul2002/10072002/r100720021.html> (last visited 15 April. 2025).

balance between the interests of domestic generic manufacturers and multinational pharmaceutical companies and introduced the TRIPS flexibilities, which were adopted on April 15, 1994, where India is a signatory, such that access to affordable medicines for the public could be facilitated.¹⁰ A copyright legislation enacted by the East India Company in 1847 was the first in India and provided for a copyright within its territories.¹¹ Under copyright law, it encompasses many types of works: painting, photography, illustration, musical composition, sound recording, computer program, books, poems, blogs, movies, architectural works, and plays. The time of protection is determined by the time at which a work is created. In the current law, the works made on and after January 1, 1978, have a copyright term of life of the author plus seventy years after the author's death.¹² The Indian Copyright Act of 1914 was meant to extend the provisions of the British Copyright Act of 1911 to India with only some modifications. It was intended for the copyright protection of works in India during British rule.¹³ WIPO Performances and Phonograms Treaty ("WPPT"); to protect the music and film industry and address its concerns; take into consideration of the physically disabled. A few of the vital amendments made within the Copyright Act in 2012 are virtual environment copyright protection, which include consequences for technological protection measures and rights management statistics circumvention; exceptions of copyright for the bodily disabled to get entry to any works; net service provider legal responsibility; and creation of statutory licenses for cover variations and broadcasting corporations. Other amendments similarly make sure royalty charge rights for authors and tune composers, exclusive monetary and moral rights for performers, and identical club rights in copyright societies for authors and other proper proprietors.¹⁴ A trade mark is applied to goods only. A trademark identifies the source of your goods or services. Provides legal protection for your brand and helps you guard against counterfeiting and fraud. For instance, you have a logo trademarked for your small toy-making business to identify and distinguish your goods or services from others in the toy field. This does not mean that you can bar other uses of the same logo for non-toy goods or services.¹⁵ The concept of trademarks dates very far back into history, including prehistoric animal brandings and ancient Egyptian quarry seals and wine sealings for

¹⁰ Embassy of India, THE PATENTS (AMENDMENT) BILL 2005 PASSED BY INDIAN PARLIAMENT (2025) available at <https://www.indianembassyusa.gov.in/ArchivesDetails?id=598> (last visited 21 April, 2025).

¹¹ The Indian Copyright Act, 1847, S. 1

¹² U.S. Copyright Office, WHAT IS COPYRIGHT? available at: <https://www.copyright.gov/what-is-copyright/> (last visited 22 April, 2025).

¹³ The Indian Copyright Act, 1914, S. 1

¹⁴ Copyright Office, available at <https://copyright.gov.in/> (last visited 25 April, 2025).

¹⁵ United States Patent and Trademark Office, WHAT IS A TRADEMARK? available at <https://www.uspto.gov/trademarks/basics/what-trademark> (last visited 26 April, 2025).

identification and indication of origin. Concerns were then raised for the international concerted effort in this aspect, hence establishment of the 1883 Paris Convention for the Protection of Industrial Property as the first major international treaty covering industrial property, including trademarks, and this started the set pattern of its protection among member states for the future conventions, among them the Madrid System.¹⁶ The Madrid protocol was meant to simplify and operate the process to achieve international trademark protection and was adopted as a signatory with India on 28 June 1989. This system, managed by the World Intellectual Property Organisation (WIPO), aims to reduce cost and time for trademark owners in demanding global security.¹⁷

INTERNATIONAL LAWS

All personnel, structures and treaty systems are created and managed by the World Intellectual Property Organisation, which includes 26 treaties of intellectual property. Some of these treaties are: Paris Convention on Industrial Property, Bern Convention for Copyright, Patent Cooperation Treaty, Madrid Protocol on Trademark, Hague Agreement on Industrial Design, WIPO Copyright Treaty for Copyright in Digital Environment. The Paris Convention for the Protection of Industrial Property (1883) established for the harmony of global industrial property rights (patents, trademarks, industrial design), "national remedies" (foreigners get equal rights to citizens) and "Priority's Right to Citizens) and" Priority's Rights "(12-Men's welfare periods). It has 179 member states, and India was a signatory in 1998.¹⁸ Some of these treaties are: Paris Convention on Industrial Property, Bern Convention for Copyright, Patent Cooperation Treaty, Madrid Protocol on Trademarks, Hague Agreement on Industrial Design.. The Paris Convention for the Protection of Industrial Property (1883) has 179 member states, and India was a signatory in 1998. It eliminated territorial fragmentation, enabling cross-border innovation. Critically, it laid the groundwork for modern patent systems but lacked enforcement mechanisms, relying on national laws. It had no explicit provisions for AI-generated inventions, creating ambiguity in assigning ownership.¹⁹ The Madrid Protocol

¹⁶ WIPO, Transcript of Episode 1, WIPOD – International Trademark System Talks, https://www.wipo.int/en/web/podcasts/madrid/transcripts/international_trademark_system_talk_01 (last visited April 26, 2025).

¹⁷ WIPO, Summary of the Madrid Agreement Concerning the International Registration of Marks (1891) and the Protocol Relating to that Agreement (1989), WIPO Treaties, https://www.wipo.int/treaties/en/registration/madrid/summary_madrid_marks.html (last visited April 26, 2025).

¹⁸ WIPO, WIPO-Administered Treaties, <https://www.wipo.int/treaties/en/> (last visited April 27, 2025).

¹⁹ WIPO, Summary of the Paris Convention for the Protection of Industrial Property (1883), WIPO Treaties, https://www.wipo.int/treaties/en/ip/paris/summary_paris.html (last visited April 27, 2025).

(1989) had its purpose was to modernising the Madrid System (1891) for international trademark registration, streamlining multi-jurisdictional filings through a centralised WIPO mechanism. It reduced costs and complexity for global trademark protection, fostering brand globalisation. Further, there is no framework for AI-generated trademarks or liability for AI-driven counterfeit networks²⁰, where 112 member states were signatories, including India, which joined in 2013. Marrakesh VIP Treaty (2013) Purpose is to enable cross-border exchange of accessible-format works for visually impaired persons, exempting signatories from copyright restrictions. Its impact is Advanced human rights-centric IP law, but limited enforcement mechanisms. Further, AI tools (e.g., text-to-speech) could enhance accessibility, yet the treaty lacks guidance on balancing AI use with copyright exceptions. 95 member states were signatories and including India, which ratified in 2014.²¹

NAVIGATING THE LEGAL VOID IN AI-IP LAW

As defined by the World Intellectual Property Organisation, the word IP (intellectual property) refers to the creations of the mind, such as inventions, Literary and artistic works, Design, and symbols, names and pictures used in commerce. A patent is a special right for an invention. Patents benefit society by providing public access to technical information about these inventions, and thus intensify innovation. Many products contain many inventions. For example, a laptop computer involves hundreds of inventions working together.²² In this subsection, we will briefly introduce and criticise Indian and international law related to their Legal Accountability for AI-Driven Intellectual Property Infringements.

A. Indian and International Laws

The Controller General of Patents, Designs and Trademarks administers the Act. There are 24 chapters in this Patent Act, out of which some relevant key sections of this act are sections 2, 6, 10, 48, 83, and 107a. Section 2 lays down precise meanings for every term used throughout the law everything from “invention” (a new product or process with an inventive step and

²⁰ United States Patent and Trademark Office, Madrid Protocol for International Trademark Registration, <https://www.uspto.gov/ip-policy/international-protection/madrid-protocol> (last visited April 28, 2025).

²¹ WIPO, Summary of the Marrakesh Treaty, WIPO Treaties, https://www.wipo.int/treaties/en/ip/marrakesh/summary_marrakesh.html (last visited April 28, 2025).

²² WIPO, What is Intellectual Property?, WIPO About IP, [https://www.wipo.int/en/web/about-ip#:~:text=Intellectual%20property%20\(IP\)%20refers%20to,and%20images%20used%20in%20commerce](https://www.wipo.int/en/web/about-ip#:~:text=Intellectual%20property%20(IP)%20refers%20to,and%20images%20used%20in%20commerce) (last visited April 28, 2025).

industrial applicability) and “inventive step,” to who counts as the “true and first inventor,” “patentee,” “Controller,” “patent office,” “patented article/process,” and so on. By fixing these core definitions, such as what qualifies as a “new invention,” who may apply, and what constitutes an “exclusive licence”, Section 2 ensures every subsequent provision has a clear, unambiguous reference point. Section 2 (1) (J),²³ talks about the definition of “invention”, the invention is a new product or procedure that includes an inventive step (not clear to anyone skilled in the concerned field). Imagine, for example, that an engineer develops a new type of water filter that can remove microplastics more effectively and at a lower cost than the current filter. The trained AI tool highlights the risk that Generative AI may produce inappropriate or illegal outputs, including incorrect information, IP infringements, deepfakes, personal information, defamatory allegations, and discriminatory, biased, and harmful content. Technical safeguards are being advanced, but given the complexity of the calculations concerned, predicting AI behaviour in all circumstances is challenging. “Person skilled inside the artwork” is a legal fiction representing a median human professional with a common, widespread understanding in the area.²⁴ In the case of *Biswanath Prasad Radhey Shyam vs Hindustan Metal Industries* on 13 December 1978²⁵, the court stated that the object of patent law is not only to encourage scientific research but promote new technology and industrial progress. The Act doesn’t clarify: How much human input qualifies the invention as “non-obvious”? Is a 1% human idea + 99% AI output patentable? To resolve this, Section 2(1)(j) must redefine “person skilled in the art” as a ‘Human-AI Team’, a dynamic collaboration where human intuition synergises with AI’s data-driven precision. This hybrid standard, inspired by the EU’s ‘Human-in-the-Loop’ doctrine (refers to a system where humans actively participate in or oversee the AI system's decision-making process. This ensures that human oversight and accountability are in place, particularly for high-risk AI systems. Under its AI Act (2024)²⁶, it would mandate that patentability assessments account for AI’s role as both a tool and a co-innovator. For instance, an AI-generated pharmaceutical formulation would require proof of meaningful human direction problem framing, training data ethics, or iterative refinement to qualify as non-obvious. The Indian Patents Act’s ‘person skilled in the art’ is a legal fiction stuck in the 20th century. In an era where AI outpaces human ingenuity, Section 2(1)(j) risks

²³ The Indian Patent Act, 1970, S. 2(1)(j)

²⁴ WIPO, Generative AI: Navigating Intellectual Property (2025), https://www.wipo.int/export/sites/www/about-ip/en/frontier_technologies/pdf/generative-ai-factsheet.pdf (last visited April 29, 2025).

²⁵ *Biswanath Prasad Radhey Shyam vs Hindustan Metal Industries*, 1982 AIR SC 1444.

²⁶ The Act text, EU Artificial Intelligence Act, <https://artificialintelligenceact.eu/the-act/> (last visited April 29, 2025).

rendering India a patent backwater, where AI's breakthroughs are either monopolised by corporations or left unprotected. To lead the AI revolution, India must redefine 'inventive step' not by the limits of human cognition, but by the boundless potential of human-machine collaboration. Section 6²⁷ restricts patent applications to human inventors, assignees, or legal heirs, mandating a "true and first inventor" to anchor ownership. This human-centric framework collapses when AI autonomously generates patentable outputs (e.g., DeepMind's drug discoveries). The Act's silence on liability creates an accountability vacuum: if AI infringes a patent, is the developer, user, or AI itself liable? While the U.S. and EU treat AI as a "tool" (denying inventorship but preserving human accountability), India's rigid anthropocentrism lags behind even South Africa's precedent (allowing AI as a named inventor in *DABUS*). By ignoring AI's creative agency, Section 6 undermines equitable remedies for AI-driven infringement and stifles innovation. Further, Section 10²⁸ mandates "sufficiently clear and complete" disclosures to enable human replication of inventions. AI-generated innovations (e.g., neural networks) often function as black boxes, rendering compliance with Section 10(4)'s disclosure norms impossible. For instance, an AI-designed algorithm may optimise energy grids in ways even its developers cannot explain. The Act's failure to mandate algorithmic transparency (e.g., open-source code requirements, model interpretability protocols) allows corporations to weaponize AI opacity, monopolising inventions while evading scrutiny. This violates the patent bargain's quid pro quo: public disclosure for exclusivity.

Section 48²⁹ grants patentees exclusive rights not only to prevent third parties from making inventions but also from using, or selling inventions. The Act's anthropocentric bias presumes human intent, leaving courts ill-equipped to adjudicate AI's autonomous acts. The term "inventor" under the Patents Act 1977, refers exclusively to a natural person, as indicated by the language and structure of the Act, including the requirement in Section 13 to identify the inventor and the derivation of right, and supported by precedent confirming the inventor as the natural person conceiving the invention.³⁰ Furthermore, the court admitted that Section 7 of the Act provides a complete statutory code for entitled to a patent, which determines that any right to apply should be obtained from an inventor (a natural person) through specific legal routes defined within that section; As a result, the

²⁷ The Indian Patent Act, 1970, S. 6

²⁸ The Indian Patent Act, 1970, S. 10

²⁹ The Indian Patent Act, 1970, S. 48

³⁰ *Thaler v. Comptroller-Gen. of Pat., Designs & Trade Marks*, [2023] UKSC 49 (Dec. 20, 2023).

ownership of an artificial intelligence system to generate an invention on an invention, in itself, has not formed a valid base to claim entitled to the patent under the infrastructure of the Current Act, provides arguments based on unnecessary concepts for such claims. Thus, the theatre decision reflects the deepest dependence of the Act on human actors, underlining the very human prejudice that creates uncertainty about whether the use of AI's autonomous "forming" or a patent invention "forms actionable violations under Section 48, which exposes the need of the advisor at the need of the advisor. Section 83³¹ mandates that patents serve public interest, prohibiting their abuse to unfairly stifle competition or trade. The provision fails to address how AI enables algorithmic patent trolling, where corporations deploy machine learning to file strategic patents (e.g., AI-generated "patent thickets" in semiconductor or pharmaceutical domains) that weaponize IP systems against competitors. AI can analyse patent databases to identify gaps, file frivolous claims, and automate litigation threats, rendering Section 83's human-centric "abuse" standards obsolete. To uphold its legislative intent, Section 83 must adopt algorithmic transparency mandates (e.g., disclosing AI use in patent filings) and empower the Appellate Board to void patents deemed AI-engineered to suppress competition. Further, Section 107a³² ("Bolar exemption") permits patented inventions to be used for research to obtain regulatory approval. The exemption's narrow focus on "regulatory experiments" ignores AI's iterative learning processes, where training on patented data (e.g., drug compound libraries) is essential for innovation. Under current law, AI systems ingesting patented data to generate novel outputs (e.g., training neural networks on copyrighted molecules to design new medicines) risk infringement liability, chilling AI-driven R&D. Contrast this with the U.S. *Authors Guild v. Google* (2015)³³, where transformative "data mining" was deemed fair use. Section 107a must be amended to include an AI-specific safe harbour, permitting patented data use for AI training if outputs are non-derivative and socially beneficial. Without this, India's patent regime will lag behind the EU's proposed AI Act (2024), which carves exceptions for AI's "non-expressive" data analysis. Sections 2, 13, 51, 52 and 55 of the Copyright Act, 1957 are the relevant major sections to legal accountability for intellectual property violations. Section 2(d)(vi)³⁴ ("Author" for Computer-Generated Works) states that while the Act nominally assigns authorship to the

³¹ The Indian Patent Act, 1970, S. 83

³² The Indian Patent Act, 1970, S. 107A

³³ *Authors Guild, Inc. v. Google Inc.*, 804 F.3d 202 (2d Cir. Oct. 16, 2015).

³⁴ The Indian Copyright Act, 1957, S. 2(d)(vi)

“person who causes” AI-generated works, this *anthropocentric* framing collapses when AI operates autonomously (e.g., GPT-4 drafting novels without human prompts). The UK’s Copyright Act (Section 9(3))³⁵ resolves this by attributing authorship to humans “arranging” AI’s creation. To prevent evasion, amend Section 2(d)(vi) to define “author” as the human who exercises creative control (e.g., curates training data, sets ethical guardrails), aligning with the EU’s “human oversight” mandate under the AI Act (Article 14). Current copyright law, particularly Section 2(ff)’s definition of infringement based on making works available via digital networks, struggles with AI platforms. These systems dynamically generate outputs, potentially mimicking copyrighted works, without ‘storing’ the final output on servers in the way traditional infringement cases (like *Disney v. Hotstar*)³⁶ require. This creates a loophole allowing AI firms to shift liability to users, even though AI models are trained on copyrighted data, meaning outputs are functionally derived from protected content stored within the model’s weights. To close this gap, Section 2(ff)³⁷ needs redefinition to encompass algorithmic recompositing based on derivation, holding platforms liable for outputs substantially similar to copyrighted works, regardless of storage, aligning with recent judicial trends. Section 13(1)(a)³⁸ (Originality Requirement) states India’s “*sweat of the brow*” doctrine (*Eastern Book Company*, 2008) rewards labour, not creativity, granting copyright to AI outputs like AI-generated news (zero human input). This creates perverse incentives: AI firms could mass-produce low-effort content, crowding out human creators.³⁹ Adopt the EU’s “*human intellectual creation*” standard (*Infopaq*, C-5/08) to deny copyright to purely AI works, forcing accountability onto humans who commercialise outputs. Section 51⁴⁰ (Infringement) states that AI training’s *reproduction* of copyrighted works (e.g., ingesting films to generate deepfakes) violates Section 51. Yet, unlike the U.S, India lacks a “fair use” shield for AI’s non-expressive data use. Legislators must borrow the EU’s text/data mining exception to exempt AI training if outputs are transformative. Section 52(1)(a)⁴¹ states about fair dealing, where Courts narrowly interpret “research” as human-centric, leaving AI training on copyrighted datasets (e.g., medical journals) vulnerable to infringement claims. Japan’s

³⁵ the Copyright, Designs and Patents Act, 1988 S. 9(3)

³⁶ *Disney Hotstar sued by Pocket FM over alleged Copyright Violation* - Report, Outlook Business, June 30, 2024, <https://www.outlookbusiness.com/corporate/disney-hotstar-sued-by-pocket-fm-over-alleged-copyright-violation-report> (last visited April 30, 2025).

³⁷ The Indian Copyright Act, 1957, S. 2(ff)

³⁸ The Indian Copyright Act, 1957, S. 13(1)(a)

³⁹ *Eastern Book Co. & Ors. v. D.B. Modak & Anr.*, 2008 AIR SC 809 (Dec. 12, 2007).

⁴⁰ The Indian Copyright Act, 1957, S. 51

⁴¹ The Indian Copyright Act, 1957, S. 52(1)(a)

2018 Copyright Act amendment⁴², permitting AI training sans consent, offers a blueprint. The Paris Convention for Protection of Industrial Property, as modified, includes 27 articles and 11 attachments. These articles cover various aspects of industrial property, including national treatment, right to priority and general. The Paris Convention, while foundational for global IP harmonisation, is riddled with archaic provisions that falter in the AI-driven digital era. Article 4's "Right of Priority", designed to protect cross-border patent filings, ignores AI-generated inventions if an AI autonomously devises a drug formula in France, can a U.S. developer claim priority? The Convention's silence perpetuates legal limbo. Lastly, Article 28's dispute mechanisms crumble when AI, trained in India, infringes German patents, as the Convention offers no framework to assign liability (developer? AI?). Collectively, these gaps render the Paris Convention a pre-digital artefact, ill-equipped to govern AI's borderless, algorithmic IP landscape, risking systemic exploitation and fragmented global innovation.⁴³

CONCLUSION

Cases like *ANI Media v. Openai* (2024)⁴⁴ and *Thaler v. Comptroller-General* (2021) starkly illustrate, existing laws anchored in 20th-century notions of authorship, inventorship, and liability are ill-equipped to govern an era where machines autonomously create, replicate, and infringe. India's Patents Act (1970) and Copyright Act (1957), while progressive in their time, falter before AI's capacity to generate patentable inventions without human ingenuity or reproduce copyrighted works at an algorithmic scale. Similarly, international treaties like the Berne Convention and Paris Convention, designed for analogue innovation, lack mechanisms to address AI's borderless, data-driven infringements, whether algorithmic patent trolling, AI-generated counterfeiting, or autonomous content replication. By embedding accountability in AI's life cycle from dataset creation to output generation - India can lead a legal paradigm where innovation thrives without renouncing the rights of the creators. The future of IP lies not in resisting AI, but in regulating its genius to serve humanity, not undermine it

⁴² WIPO, AI and Copyrights under Japan's Copyright Act, WIPO_IP_CONV_GE_2_23_SS05 (2023), https://www.wipo.int/edocs/mdocs/mdocs/en/wipo_ip_conv_ge_2_23/wipo_ip_conv_ge_2_23_ss05.pdf (last visited April 30, 2025).

⁴³ Paris Convention for the Protection of Industrial Property, as last rev. July 24, 1971, available at United Nations Industrial Development Organization (Apr. 2014), https://www.unido.org/sites/default/files/2014-04/Paris_Convention_0.pdf (last visited April 30, 2025).

⁴⁴ *ANI Media Pvt. Ltd. v. Open AI Inc. & Anr.*, CS(COMM) 1028/2024 (Delhi H.C. Mar. 20, 2025).