ARTIFICIAL INTELLIGENCE AND COPYRIGHT LAW: RETHINKING AUTHORSHIP, OWNERSHIP, AND INFRINGEMENT IN THE DIGITAL AGE

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ABSTRACT

Artificial Intelligence (AI) has revolutionized the creative landscape, posing intricate copyright issues in India and internationally. Traditionally, the Copyright Act, 1957, is based on the idea of human authorship and originality, a concept that is increasingly difficult to apply to works created with the help of AI or entirely by AI. The paper explores the legal ambiguities related to authorship, ownership and liability in such frameworks, and puts the Indian perspective in the international discourse on AI and IP. It uses a doctrinal research methodology that focuses on analysing statutory provisions, case law and literature as well as a comparative study of the emerging regulatory frameworks, especially in the European Union. The study reveals that Indian copyright law does not explicitly recognize works created by AI, and as a result, there exists ambiguity regarding rights and responsibilities. These issues are not unique to this area, and other nations are facing comparable problems as copyright owners attempt to balance the copyright principles with machine created creativity. Current legal interpretations are focused on human creativity and leave out other creators, leaving gaps in protection. With the advent of technology, there has been an increase in the likelihood of copyright infringement globally, especially with the use of automated content generation and reproduction systems, making it difficult to establish liability. The European Union (EU) offers a glimpse into a developing trend of structured AI regulation, while India remains lacking in such a system. The paper calls for rethinking or reshaping copyright laws in India considering global trends to perfectly balance innovation with IP rights in the era of AI-driven creativity. It suggests distinguishing between AI-assisted and autonomous works and emphasises the importance of internationally harmonised approaches to effectively regulate AI-related copyright issues.

Keywords: Artificial Intelligence, Copyright Law, Authorship, Infringement, India.

I. INTRODUCTION

With the advent of AI as a generative tool in creative industries, a pivotal legal issue of the digital age has arisen: whose is an AI-generated work? The doctrine of copyright has always been based on a benign concept: creativity is a gift of the human spirit and there is a legal mechanism to encourage the human mind to work for culture. This is now being put to the test. Generative systems that can author novels, write music, paint pictures, draft legal papers on large scales have shown that statutory frameworks are not made to account for non-human creativity, and were in fact designed a long time before non-human creativity was seriously considered. The situation is even worse in India. The Copyright Act, 1957, which was last amended in substance in 2012, was created in a time when 'computer-generated work' meant little more than text that was processed on a mainframe computer. The definition of authorship in section 2(d) includes computer-generated works and grants authorship to the 'person who causes the work to be created'. However, this seemingly accommodating provision is not meant to be applied to a scenario where an artificial intelligence system (A.I.) that has been trained on billions of documents creates a text seemingly original to it, but without any human author making creative decisions.[1] The problem with the doctrine is not just academic. Questions of authorship have direct implications on questions of ownership, commercialisation, and infringement liability each of which has practical implications for the developer, creative industries, and the public. If an AI system generates a sizeable number of elements from copyrighted training data in its output, under which legal provision is this considered? Is there any protection for a generative model trained on millions of copyrighted works without permission under the fair dealing provision of Section 52? If there is no human author, does the work go into public domain at creation? All these questions have no clear answers under the existing Indian law.[2] These questions are explored in this paper through a doctrinal perspective, with reference to the legal framework of the Copyright Act, 1957, as well as some of the relevant case law and a comparative overview of the development of the regulatory framework in the European Union. The EU's path from the Copyright in the Digital Single Market Directive (2019) to the Artificial Intelligence Act (2024) is the most detailed legislative attempt by any major jurisdiction to engage with AI and IP and provides a substantive

[1] Francesca Mazzi, *Authorship in Artificial Intelligence-Generated Works: Exploring Originality in Text Prompts and Artificial Intelligence Outputs Through Philosophical Foundations of Copyright and Collage Protection*, 27 J. WORLD INTELL. PROP. 410 (2024), https://doi.org/10.1111/jwip.12310; Pamela Samuelson, *Generative AI Meets Copyright*, 381 SCIENCE 158 (2023), https://doi.org/10.1126/science.adi0656.

[2] Mark A. Lemley, *How Generative AI Turns Copyright Upside Down*, 25 COLUM. SCI. & TECH. L. REV. 190 (2024), https://doi.org/10.52214/stlr.v25i2.12761.

benchmark for the current status of India's law and the potential for reform.[3]

II. ARTIFICIAL INTELLIGENCE AND THE INDIAN COPYRIGHT FRAMEWORK

A. The Authorship Problem under Section 2(d)

Copyright is a law of authorship. Copyright belongs to 'original literary, dramatic, musical and artistic works' and the Supreme Court, in *Eastern Book Company v. D.B. Modak*,[4] has held that originality, meaning intellectual effort and a measure of creative ability on the part of the author, is an essential requirement of copyright. The judgment, based on the 'skill and judgment' standard, sets forth that the mechanical production is not enough. This is not something that is comfortable for AI systems that produce text statistically, not because of conscious creative choice. Section 2(d)(vi) is a new addition to the definition of author that includes 'in relation to any literary, dramatic, musical or artistic work which is computer-generated, the person who causes the work to be created'. The provision was added with 'rudimentary software generated works' in mind. The definitional gap has practical implications.[5] The problem is that the provision was never intended to cover the case where there is no identifiable person who has a meaningful role in the generative process: the outputs of large language models and diffusion models are not easily assignable to any one person's intellectual efforts.[6] If no author can be determined, there is no guidance in Section 17 which gives the first ownership to the author. In principle, the Act allows works for which no author can be determined to enter the public domain at creation, which would mean that commercial actors would not have proprietary rights in works produced by AI and would have powerful disincentives for investing in AI-based creative industries. Whether this is desirable from a policy perspective is different from whether this is the result that the Act imposes; the two questions are not necessarily identical.

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[3] P. Bernt Hugenholtz & João Pedro Quintais, *Copyright and Artificial Creation: Does EU Copyright Law Protect AI-Assisted Output?*, 52 IIC INT'L REV. INTELL. PROP. & COMPETITION L. 1190 (2021), https://doi.org/10.1007/s40319-021-01115-0; Christophe Geiger & Vincenzo Iaia, *The Forgotten Creator: Towards a Statutory Remuneration Right for Machine Learning of Generative AI*, 52 COMPUT. L. & SEC. REV. 105925 (2024), https://doi.org/10.1016/j.clsr.2023.105925.

[4] *Eastern Book Co. v. D.B. Modak*, (2008) 36 PTC 1 (SC) (India).

[5] A. Chakraborty, *Adapting Indian Copyright Law to the Age of Artificial Intelligence: Recognising AI as Authors Under the Copyright Act of 1957*, 4 INDIAN J. INTEGRATED RSCH. L. 1 (2024), https://ijirl.com/wp-content/uploads/2024/06/ADAPTING-INDIAN-COPYRIGHT-LAW-TO-THE-AGE-OF-ARTIFICIAL-INTELLIGENCE-RECOGNIZING-AI-AS-AUTHORS-UNDER-THE-COPYRIGHT-ACT-OF-1957.pdf.

[6] Mazzi, *supra* note 1.

B. Originality, Creativity, and the Machine

In comparative common law jurisdictions, the requirement for originality has been given a broad construction. Even the 'minimal creativity' test set forth by the United States Supreme Court in *Feist Publications v. Rural Telephone Service*,[7] the most permissive formulation, assumes an authored work, with the law being called upon to assess the creativity of the author. Under a plausible interpretation of the existing doctrine, works created by AI but which are edited and shaped by human operators through the use of an AI tool could be protected by copyright on a human operator's work, rather than the AI's work.[8] The latter is the more conceptual challenge, however, that if the human element is simply a generic prompt or the activation of a commercial service, then it is hard to see that any protectable authorial expression exists. The provisions of the Copyright Act, 1957, most relevant to the questions of authorship and ownership that arise in relation to AI-created works are summarized in Table 1 below and explained below.

Table 1: Key Provisions of the Copyright Act, 1957, Relevant to AI-Generated Works

Section / Provision	Relevant Text (Summary)	Significance for AI Works
Section 2(d): Definition of Author	Defines 'author' for literary, dramatic, musical, and artistic works; for computer-generated works, the 'person who causes the work to be created'	No explicit provision for non-human or autonomous AI creators; leaves interpretative gap
Section 13: Works in which copyright subsists	Copyright subsists in original literary, dramatic, musical, and artistic works	Originality requirement presupposes human intellectual effort; AI outputs may fall outside scope
Section 17: First ownership	The author of a work is the first owner of copyright therein	Unclear who 'owns' a work generated by an AI system without human authorship
Section 52: Fair dealing exceptions	Certain acts, including reproduction for research, criticism, and private study, do	Text and data mining for AI training remains legally ambiguous under this provision

[7] *Feist Publ'ns, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340 (1991).
[8] Lemley, *supra* note 2; Hugenholtz & Quintais, *supra* note 3.

Section / Provision	Relevant Text (Summary)	Significance for AI Works
	not constitute infringement	
Section 65A: Technological protection measures	Circumvention of effective technological protection measures is prohibited	Relevant to AI-generated outputs that bypass rights-management systems

C. Text and Data Mining and the Limits of Section 52

In addition to the authorship issue, AI poses unique questions about what fuels the creative process. The systems are designed to be generative AI systems that are trained on copious amounts of text, images and other data, many of which are copyright protected. The reproduction of these works in a training set, and the use of the reproductions to calibrate model parameters, falls within the scope of the reproduction right as covered by Section 52 of the Act, which contains an exception for reproduction for the purpose of research, private study, criticism or review. It is highly unclear whether massively replicated AI for training purposes is part of these, or not. India's fair-dealing doctrine is based on a closed list of permitted uses, as opposed to the fair use doctrine that prevails in the United States, which allows for a multi-factor analysis. That position has been displaced by the concession in the working paper of 2024 by the Department for Promotion of Industry and Internal Trade that a specific mechanism is needed, as existing provisions under Section 52 do not seem to be sufficient to address the use of AI.[9]

III. THE INTERNATIONAL LANDSCAPE: COMPARATIVE PERSPECTIVES

A. The European Union's Regulatory Architecture

The European Union is the jurisdiction that has been most systematically involved with the intersection of AI and copyright. The CDSM Directive, adopted in 2019, established two new obligatory exceptions for TDM: Article 3 – TDM by research organisations and cultural heritage institutions for scientific research; Article 4 – a commercial TDM exception with an opt-out for rights-holders. The AI Act of 2024 introduced an additional layer of IP-specific requirements, while the opt-out mechanism introduces an additional complexity for AI developers, who have to track and respect machine-readable opt-outs on a scale previously not

[9] Chakraborty, *supra* note 5.

seen in the old European framework.[10] As per Article 53(1)(c), the providers of general-purpose AI models must establish a policy to adhere to the Union copyright law. The EU's Code of Practice for General-Purpose AI Models, which was developed in July 2025, and has been co-drafted by independent experts that included representatives of major model providers and rights-holder organisations, is the first step to operationalise the copyright compliance obligation of the AI Act and is based on a co-regulatory approach.[11] The model is a voluntary plus-statutory one, and it is unclear whether it is sufficient to protect rights holders, given the lack of litigation and enforcement to date.

B. The United States and the Human-Authorship Requirement

The U.S. Copyright Office has had a clear policy stance since 2023: works produced without a high enough level of human creative control are not copyrightable.[12] In January 2024, the Office published Part 2 of its AI and Copyright report in which it reiterated that copyright protection only extends to works in which the human element is 'genuine' and not where the human element is 'without any creative input or modification'.[13] The Office also clarified that works created with AI may be capable of being protected where the human contribution is distinct and sufficiently creative. This view has been consistently adopted by the federal courts. *Thaler v. Perlmutter*[14] held that human authorship is a necessary element of a copyrightable work, and, in 2025, the D.C. Circuit confirmed the District Court's ruling in that case that the incentive rationale of copyright protection is only applicable to human creative effort. The court refused to recognize a work as being the original creation of an artificial intelligence system. There have been mixed reviews from the academic world. By contrast, Henderson and the co-authors contend that prompting the models with copyrighted content could be potentially fair use under existing copyright doctrine, but that the risk of infringing the copyright would

[10] Thomas Margoni & Martin Kretschmer, *A Deeper Look into the EU Text and Data Mining Exceptions: Harmonisation, Data Ownership, and the Future of Technology*, 71 GRUR INT'L 685 (2022), https://doi.org/10.1093/grurint/ikac054; Martin Senftleben, *Control and Compensation: A Comparative Analysis of Copyright Exceptions for Training Generative AI*, 56 IIC INT'L REV. INTELL. PROP. & COMPETITION L. 1 (2025), https://doi.org/10.1007/s40319-025-01569-6.

[11] Christophe Geiger & João Pedro Quintais, *The Copyright Chapter of the EU's Code of Practice for General-Purpose AI Models: A Commentary*, 56 IIC INT'L REV. INTELL. PROP. & COMPETITION L. 1 (2025), https://doi.org/10.1007/s40319-025-01664-8.

[12] Copyright Registration Guidance: Works Containing Material Generated by Artificial Intelligence, 88 Fed. Reg. 16,190 (Mar. 16, 2023), https://www.federalregister.gov/documents/2023/03/16/2023-05321/copyright-registration-guidance-works-containing-material-generated-by-artificial-intelligence.

[13] U.S. COPYRIGHT OFF., COPYRIGHT AND ARTIFICIAL INTELLIGENCE, PART 2: COPYRIGHTABILITY (2024), https://www.copyright.gov/ai/copyright-and-artificial-intelligence-part-2-copyrightability-report.pdf.

[14] *Thaler v. Perlmutter*, No. 1:22-cv-01564 (D.D.C. 2023), *aff'd*, No. 23-5233 (D.C. Cir. 2025).

lie in the model's memorisation of the literal reproduction of training data in the output.[15]

C. The WIPO Process and International Convergence

The World Intellectual Property Organization has been holding a series of structured discussions on intellectual property and AI since 2019 at the multilateral level. Three main concerns were identified in the 2023 Issues Paper: whether AI-generated output is protectable, whether copyrighted works can be used as training data, and whether the operator and developer of an AI system can be held liable for copyright infringement on the outputs generated by the AI system.[16] There is, so far, no consensus, as member states have conflicting economic and cultural interests. But the discussion has created a common language for analysis, and a language of the issues on which harmonisation, if it takes place, might happen. This observation by Grimmelmann is as relevant as ever in 2025 as it was when he made it: copyright law was developed for 'literate humans' and when machines become able to create text that is 'functionally indistinguishable' from that authored by humans, "the foundational categories of copyright, such as author, work and expression, lose their coherence."[17]

Table 2: Comparative Framework: India and the European Union on AI and Copyright

Dimension	**India (Copyright Act, 1957)**	**European Union (AI Act 2024 / CDSM Directive 2019)**
Recognition of AI-generated works	No explicit provision; computer-generated works attributed to the 'person who causes the work to be created'	No direct copyright for autonomous AI outputs; human creativity requirement affirmed under EU acquis
Text and data mining exceptions	Section 52 fair dealing; no dedicated TDM exception; ambiguous scope for commercial AI training	Arts. 3–4 of the CDSM Directive provide mandatory TDM exceptions, with opt-out rights for rights holders
Liability for AI-generated infringement	General infringement provisions apply; no AI-specific liability regime for developers or	EU AI Act (Art. 53) imposes copyright compliance obligations on general-purpose AI model

[15] Peter Henderson et al., *Foundation Models and Fair Use*, 24 J. MACH. LEARNING RSCH. 1 (2023).
[16] World Intell. Prop. Org. [WIPO], *Conversation on Intellectual Property and Artificial Intelligence: Issues Paper*, WIPO/IP/AI/3/GE/23/1 (2023), https://www.wipo.int/edocs/mdocs/mdocs/en/wipo_ip_ai_3_ge_23/wipo_ip_ai_3_ge_23_1.pdf.
[17] James Grimmelmann, *Copyright for Literate Robots*, 101 IOWA L. REV. 657 (2016).

Dimension	India (Copyright Act, 1957)	European Union (AI Act 2024 / CDSM Directive 2019)
	deployers	providers
Transparency obligations	Absent from current statutory framework	GPAI providers must publish summaries of training data (Art. 53(1)(d) AI Act)
Reform trajectory	DPIIT working paper (2024) proposes hybrid licensing model and Copyright Royalties Collective for AI Training	Code of Practice for General-Purpose AI finalised July 2025; iterative co-regulatory approach in progress

IV. COPYRIGHT INFRINGEMENT IN THE AGE OF GENERATIVE AI

A. Training Data and the Reproduction Right

At least, a training set should include the reproduction of copyrighted works for training a Generative AI Model. Each of these variables could impact the infringement analysis in a unique way under different national schemes, whether it is a temporary or permanent reproduction, complete or partial, commercial or non-commercial. Section 14(a) of the Indian Copyright Act 1957 provides the copyright owner of a literary work with exclusive rights to reproduce it 'in any material form, including the storing of it in any medium by electronic means'. The other, more controversial issue is whether the reproduction being used for the training of AI is 'expressive' in the copyright sense, that is, whether the AI system has used the protected expression in the work, or has merely used the information which is unprotected. This is an argument that is gaining momentum, as Sag claims that machine learning is a 'non-expressive use' as the model does not replicate or share the expressive content of the training data with the end user but only captures statistical patterns.[18] There has been some support and criticism of this argument. Lemley and Casey argue that, although it is analytically valid, it may not adequately capture the way that modern large language models are trained, as they can and do memorise parts of their training data.[19] The memorisation problem is not just a theoretical one. Under certain prompting conditions, large language models have been shown to verbatim reproduce text from the corpus that they have been trained on, in which case the

[18] Matthew Sag, *Copyright Safety for Generative AI*, 61 HOUS. L. REV. 295 (2023).
[19] Mark A. Lemley & Bryan Casey, *Fair Learning*, 99 TEX. L. REV. 743 (2021).

'non-expressive use' defence is not available and the output of the model is a direct infringement of the original work.[20] The practical difficulty for any rights-holder is evidential: knowing that a particular output is a reproduction of a particular training work is either to have access to the training work itself (and AI developers usually view the training work as their own), or to employ specialised technical analysis.

B. Liability Attribution: Developers, Deployers, and Users

The issue of liability in AI-generated content infringing on copyright is doctrinally intricate and relevant. Copyright law in India allows for primary, secondary, and authorisation liability but lacks any AI-specific provisions that would allocate these types of liability between the actors involved in the creation and deployment of AI. The European Union, on the other hand, has adopted a tiered approach in the AI Act, where copyright compliance obligations are imposed on providers of general purpose AI models, which includes the developers of foundation models used for multiple downstream applications.[21] Kaminski's analysis of AI risk regulation provides a helpful theoretical framework: she suggests that liability rules for AI should be designed to internalise the externalities of AI deployment, so as to provide incentives for AI developers to invest ex ante in safety and compliance, rather than shifting the costs of enforcement to rights holders ex post.[22] Transferred to the copyright context, this means that liability rules should be structured to encourage AI developers to obtain licences, implement opt-out compliance systems and invest in technical measures to reduce memorisation, rather than forcing rights holders to bear the costs of enforcement ex post.

C. The Output Infringement Problem

A separate, but related, question is whether the AI system's outputs by themselves copyright infringing of existing works are. The traditional substantial similarity test that asks whether an ordinary observer would recognize the defendant's work as having been substantially copied from the plaintiff's work was developed for human-generated works, and may be unpredictable

[20] Henderson et al., *supra* note 15.
[21] Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 Laying Down Harmonised Rules on Artificial Intelligence (Artificial Intelligence Act), 2024 O.J. (L 1689) 1, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32024R1689; Philipp Hacker, *The European AI Liability Directives: Critique of a Half-Hearted Approach and Lessons for the Future*, 51 COMPUT. L. & SEC. REV. 105871 (2023), https://doi.org/10.1016/j.clsr.2023.105871.
[22] Margot E. Kaminski, *Regulating the Risks of AI*, 103 B.U. L. REV. 1347 (2023).

when applied to the output of AI models.[23] An AI model trained on the entirety of one author's output could generate works that are stylistically similar but expressively different, while a model that merely regurgitates training materials might generate works that are textually almost identical to protected works. Whether copyright law should be adapted to deal with the replication of style, as a form of misappropriation, has been a subject of scholarly debate but has yet to be translated into legislation in any major jurisdiction, according to Sun's analysis of copyright protection in the AI era.[24] A related doctrinal approach for a 'forgotten creator' remuneration mechanism is taken by Geiger and Iaia, who rely on fundamental rights principles to argue that, even if the substantive copyright exceptions are not sufficient to address the market-displacement problem, human authors whose works contribute to the value of the AI systems nonetheless have a legitimate claim to compensation.[25]

V. TOWARDS A REFORMED FRAMEWORK: PRINCIPLES AND PROPOSALS

A. Distinguishing AI-Assisted from Autonomous AI-Generated Works

A principled distinction should be drawn between works created with the help of an AI where there is meaningful human creative control, which should continue to be protected by copyright, and fully AI-generated works where no identifiable human makes expressive choices that could be the subject of copyright protection.[26] The latter category is the more difficult one and may well require a sui generis or neighbouring right or a conscious decision to assign explicitly to the public domain, but this policy decision should not be left to be decided by default by the application of provisions which were designed for a different era. It is instructive to look at the European experience. The four-step test developed by Hugenholtz and Quintais, asking at each step whether the human author has exercised free and creative choices, is an adaptation of the Court of Justice of the EU's consistent interpretation of the originality standard as requiring the author's 'own intellectual creation'.[27] Adapting this analytical framework to the Indian context would require no immediate statutory amendment; it could be accomplished through judicial interpretation of the existing originality and authorship

[23] Lemley, *supra* note 2.
[24] Haochen Sun, *Redesigning Copyright Protection in the Era of Artificial Intelligence*, 107 IOWA L. REV. 1213 (2022).
[25] Geiger & Iaia, *supra* note 3.
[26] Samuelson, *supra* note 1; R. Wang, *The Copyright Requirement of Human Authorship for Works Containing Artificial Intelligence-Generated Content*, 13 IP THEORY art. 2 (2024), https://www.repository.law.indiana.edu/ipt/vol13/iss2/2.
[27] Hugenholtz & Quintais, *supra* note 3.

requirements, provided that courts are willing to engage with the problem directly rather than avoid it through formalistic readings.

B. A Dedicated Text and Data Mining Regime

The most urgent structural reform needed in India is in relation to the use of copyrighted works in AI training data. The DPIIT working paper suggests a middle-ground model of a hybrid licence, where AI training would be permitted but with a mandatory licence and a centralised royalty collection mechanism.[28] This approach would pose significant challenges in relation to the valuation of training data, the distribution of royalties among rights holders, and the governance of a new collecting society. A specific TDM exception, similar to the EU CDSM but tailored to the Indian context, would offer more legal clarity than the current general fair-dealing exception, and could allow for non-commercial and research-oriented TDM without restriction, and impose a licence or opt-out compliance for commercial AI training, essentially following the EU's Article 3/Article 4 distinction. The key design issue is whether the opt-out system would work in practice, in the context of the vast volume of commercial AI training and the asymmetries of information between large AI developers and individual right holders.

C. Liability, Transparency, and International Alignment

A liability regime that properly distributes liability for AI-caused infringement in a logical and rational way is also essential for effective reform. It would be helpful for the reform process in India to directly engage with these findings and not just view the question as a purely domestic legislative issue. The EU Code of Practice for general-purpose AI models offers a model of 'co-regulation' that could be adapted to the Indian context: instead of detailed rules being set out in primary law, the legislature could set out a framework of objectives and principles, while the implementation is negotiated, via codes of practice, between the AI developers and rights-holder organisations and overseen by regulators. At the international level, the engagement of the Indian reform should be rooted in the WIPO IP and AI process, the G7 Hiroshima AI Process Principles and the principles of TRIPS flexibilities which allow for the introduction of copyright exceptions, if they meet the three-step test.[29] Lemley's foundational analysis of what a reformed copyright law must accomplish in the generative AI era, preserving the incentive to

[28] DEP'T FOR PROMOTION OF INDUS. & INTERNAL TRADE, MINISTRY OF COM. & INDUS., GOV'T OF INDIA, WORKING PAPER ON ARTIFICIAL INTELLIGENCE AND INTELLECTUAL PROPERTY RIGHTS (2024).
[29] WIPO, *supra* note 16.

create while preventing appropriation of the expressive labour of human authors, provides a useful normative anchor for this international engagement.[30] This paper proposes reforms which are summarized in a comparative format in Table 3 below. Table 3 below presents the reform proposals advanced in this paper in a structured comparative format.

Table 3: Proposed Reform Measures for the Indian Copyright Framework in the AI Era

Reform Area	Proposed Measure	Rationale
Authorship definition	Amend Section 2(d) to distinguish AI-assisted works (human co-author) from fully autonomous AI-generated works (no copyright / sui generis protection)	Addresses interpretative gap; aligns with global trend toward human-creativity requirement
Text and data mining	Introduce a dedicated TDM exception within Section 52, modelled on EU CDSM Arts. 3–4, with opt-out rights for commercial training	Provides legal certainty for AI developers while protecting rights holders' economic interests
Liability framework	Codify tiered liability allocating responsibility among AI developers, deployers, and end users	Resolves ambiguity in attributing infringement where AI systems generate protected content autonomously
Transparency obligations	Mandate disclosure of training data summaries by commercial AI developers, consistent with EU AI Act obligations	Enables rights holders to identify and enforce copyright; facilitates evidence-based litigation
International harmonisation	Align reform with WIPO IP and AI conversations and TRIPS flexibilities; engage with G7 Hiroshima AI Process principles	Ensures India's regulatory posture remains coherent with international IP obligations

VI. DISCUSSION

Based on the doctrinal analysis outlined in this paper, it is apparent that the Copyright Act, 1957, is fundamentally outmoded in its approach to the realities of the creative production through Artificial Intelligence. It is a mismatch at three levels. Authoring, as covered by the Act, is not finely grained enough to capture the spectrum of relationships between humans and

[30] Lemley, *supra* note 2.

the new generative systems. Second, at the training-data problem level, the Act does not provide an explicit framework for text and data mining, leaving the rights of content creators and the responsibilities of AI creators in law-enforceable limbo. Third, in infringement liability, no rules specific to AI means that rights holders have opportunities for regulatory arbitrage and enforcement is often impractical without access to AI training data disclosures. A few insights emerge from conducting the comparative analysis. The EU has a history of success and failure in this area. The CDSM Directive's "transparency and compliance provisions" constitute a more direct challenge to the AI-specific aspects of the issue, but enforcement mechanisms are still under development.[31] The AI Act's further requirements for transparency and compliance will require further litigation, co-regulation and academic debate over their effectiveness in protecting rights holders. The EU model is not the all-in-one solution for India. India's IP policy has long recognised the developmental aspect and its sensitivity towards safeguarding access to knowledge and against unduly 'over-prioritising' information goods that would stifle the indigenous innovation. These considerations are also applicable in AI, and any reform framework should be able to strike a balance among rights holders' interests and the public interest in the development and deployment of AI.[32] One more aspect of the analysis that gives cause for concern is the Indian content creators whose content has been used without permission or payment to train AI models that are deployed across the world. The foreign use of Indian copyrighted works in AI training datasets has created concerns for private international law, and questions about the effectiveness of India's domestic IP enforcement regime that lie outside the scope of this paper but are worthy of continued academic and policy debate.[33]

VII. CONCLUSION

AI is at the doorstep of copyright law, and it is not sufficiently welcomed by the law. AI-generated authorship is not explicitly covered by the Copyright Act, 1957; there is no specific mechanism for covering AI training data; and there is no liability regime for AI that is specifically for AI, as the omissions create uncertainty for developers, lack legal protections for creators and leave courts without any statutory guidance in a space of significant

[31] EUR. PARLIAMENTARY RSCH. SERV., AI AND COPYRIGHT: THE TRAINING OF GENERAL-PURPOSE AI, EPRS_ATA(2025)769585 (2025), https://www.europarl.europa.eu/RegData/etudes/ATAG/2025/769585/EPRS_ATA(2025)769585_EN.pdf.
[32] Geiger & Iaia, *supra* note 3; Martin Senftleben, *Generative AI and Author Remuneration*, 54 IIC INT'L REV. INTELL. PROP. & COMPETITION L. 1535 (2023), https://doi.org/10.1007/s40319-023-01399-4.
[33] Kaminski, *supra* note 22.

technological and economic importance. Reform is not only desirable, but possible as well. The difference between works created with AI assistance and works created entirely with AI creates a principled basis for the distinction of copyright analysis, depending on the extent of the involvement of human creativity. A specific and adapted EU CDSM model exception for TDM would ensure legal clarity and security for research and commercial use of AI training, simultaneously maintaining opt-out rights for rights holders. A stakeholder-based liability model that clarifies who is responsible for copyright compliance (developers, deployers and users) will set the right incentive framework for responsible AI development. Requirements to be transparent, including disclosure of training data summaries, would help rights holders to identify and enforce their rights. All of these reforms are not easy. Both are daunting calibration problems, contain conflicting economic motives, and are fraught with the problem of passing legislation for a rapidly changing technology. But one thing the analysis does reveal is that the current policy of inaction based on provisions that were created for a pre-digital world to answer questions that are quite different in the digital world is no longer viable. India can create a copyright framework for the AI era, which is locally relevant and globally compatible. Whether that opportunity will be taken will depend on how fast and good legislative engagement is with a problem that is already present.