OPEN-SOURCE AI AND THE TENSION BETWEEN INNOVATION AND PROTECTION

Mohammed Salman Siddiqui, Amboji Archana & Ammarah Ishaq[1]

ABSTRACT

The rapid proliferation of Artificial Intelligence has revolutionized global innovation ecosystems, creating a profound tension between the collaborative spirit of open-source AI and the traditional frameworks of Intellectual Property Rights. This research addresses the central question of how legal systems can reconcile the autonomous nature of AI-generated creations with a regulatory landscape designed primarily for human inventors and authors. This study is highly relevant to global digital governance as the rise of machine learning challenges established notions of ownership, authorship, and the social contract between innovators and the public.

This research investigates the limitations of human-centric IP statutes addressing autonomous machine outputs and analyses how open-source collaborative models impact innovation and competition, evaluate international judicial responses to non-human inventorship alongside potential regulatory pathways to balance public knowledge access with private protection incentives. Through doctrinal legal analysis of international treaties, (TRIPS Agreement and Berne Convention), and domestic statutes, specifically the Indian Patents Act, 1970, and Copyright Act, 1957. It also incorporates a comparative study of diverse jurisdictional approaches, including the US, EU, UK, and South Africa, alongside a case law review of landmark disputes like the DABUS applications. The analysis finds that current human-centric requirements for originality and inventive steps create a protection deficit for AI-generated works, potentially forcing innovators toward trade secrecy. Open-source models significantly influence competition by lowering barriers to entry, yet they remain vulnerable to algorithmic collusion and unauthorized data scraping. Furthermore, the lack of legal personhood for AI systems creates a liability vacuum. The research argues that while most jurisdictions reject AI as a sole inventor, recognizing distal labour, the human effort in designing the machine that creates, is vital for maintaining economic incentives.

[1] University College of Law, Osmania University.

The study concludes that resolving the tension between innovation and protection requires a forward-looking, flexible IPR system that moves beyond anthropocentric biases. Implementing sui generis rights for machine-generated works or a human guardian mechanism for AI IP administration provides a viable path to foster technological growth while ensuring legal accountability and equitable access.

1. Introduction

The rise of machine-driven innovation has precipitated a jurisprudential collision, thrusting the collaborative transparency of open-source innovation into a direct, unresolved conflict with the exclusionary boundaries of traditional Intellectual Property law. Historically, these legal structures were established on the premise that inventorship is a unique human faculty; however, this anthropocentric doctrine is currently being contested by landmark legal challenges such as the *DABUS*[2] and *RAGHAV*[3] applications. In the Indian context, the Patent and Copyright statutes that recognize only natural persons as creators causes a legal lacuna for machine-generated output. Consequently, the absence of clear statutory directives addressing large-scale data ingestion and collaboration threatens stifling the trajectory of technological advancement and destabilizing the economic equilibrium of creative industries.[4]

This paper critically examines the incompatibility between India's human-centric IPR framework and the functional realities of AI systems. It advances a thesis for adoption of hybrid regulatory approach, rooted in deemed inventorship and innovation oversight, balancing public access to AI-generated knowledge, economic incentives and legal accountability. By analysing global position, this study proposes a progressive IPR regime accommodating technological autonomy without eroding foundational legal principles.

2. Doctrinal Incompatibility Between AI Autonomy And Ipr

The research problem arises from disconnect between the human-centric structure of India's IPR regime and reality of autonomous AI systems capable of independent inventions and

[2] Thaler v. Vidal, 43 F.4th 1207 (Fed. Cir. 2022). The Court, referring to Patent Act's established 'individuals refer to natural persons rejecting sole inventorship to AI and reiterated human centricity followed by most common law jurisdictions.

[3] Registration No. ROC A-139040/2021 (Copyright Office of India). Initially, co-authorship was granted to the RAGHAV AI by Copyright Office alongside natural person, it was later withdraw citing lack of natural person under Sec. 2(d) of Copyright Act, 1957.

[4] Hema, *Protection of Artificial Intelligence Autonomously generated Works under Copyright Act, 1957: An Analytical Study,* International Journal of Law and Social Sciences, (2023).

creative works, exposing limitations in existing framework. Under Sec. 6 of Patents Act,[5] only a '*person*' claiming to be the '*true and first inventor'* is entitled to apply for protection. Judicial precedents and administrative practice have limited this category to natural persons and legal entities, excluding non-human agents.[6] Consequently, AI systems which satisfy the threshold of novelty, inventive step and industrial application are not being able to secure protection due to absence of legal personality. This protection gap for commercially valuable inventions incentivises trade secrecy and undermines patent system's objective of public disclosure and knowledge diffusion, potentially resulting in disincentive for R&D investment for AI in India to jurisdictions with greater legal certainty.

Similarly, Sec. 2(d)(vi) of the Copyright Act,[7] which recognises computer-generated works, attributes authorship to *'person who causes the work to be created'*, necessitating human involvement.[8] As established in landmark precedents such as *Eastern Book Company v. D.B. Modak*[9], modicum of creativity and exercise of skill and judgment are conditions for originality which require selection, coordination and arrangement distinct from pre-existing data.[10] These are deemed to be results of human intervention.[11] Autonomous AI-generated derivative outputs, arising from statistical calculations and algorithmic optimisation, do not fit within this framework, leading to legal uncertainty for both protection of works and ownership.[12]

The research problem is further compounded by rise of dependency of open-source AI developments, on large-scale data extraction for training AI models, particularly proprietary and copyrighted databases raising concerns regarding copyright infringement under Sec. 51 of the Copyright Act.[13] Ongoing litigation, such as *ANI Media Pvt. Ltd. v. OpenAI Inc.*,[14] highlights the absence of clear legal standards to determine whether such practices constitute permissible fair dealing under Sec. 52[15] or an unlawful appropriation of protected data and

[5] The Patents Act, 1970, § 6, No. 39, Acts of Parliament, 1970 (India).
[6] Deepa Kumar Srivastava & Akshat Kare, *Artificial Intelligence and Patent Law: Analyzing Patentability of AI-Generated Works,* Panjab U. L. Rev. Vol. 63, No. 1 (2024).
[7] The Copyright Act, 1957, § 2(d)(vi), No. 14, Acts of Parliament, 1957 (India).
[8] Rajiv Sharma & Ninad Mittal, *Artificial Intelligence lacks personhood to become the Author of an Intellectual Property*, LiveLaw, (2023); Rupendra Kashyap v. Jiwan Publishing House Pvt. Ltd, SLP(C) 24022/2023.
[9] Eastern Book Company v. D.B. Modak, (2008) 1 SCC 1.
[10] Periyar Self Respect Propaganda Insitution v. Periyar Dravidar Kazhagam, (2010) 44 PTC 422 Mad.
[11] Shivang Tripathi & Neha Singh, *Charting A Roadmap for Integration of AI & IPR: Analysing the Domestic and Global Regulatory Framework Posing Humanistic Challenge,* 1 HPNLU IPIR 1 (2024).
[12] Namrata Sahu & Priyesh Ghosh, *True and First Inventor: AI Generated Inventions*, International Journal of Law Management & Humanities, Vol. 6, Issue 3, (2023).
[13] The Copyright Act, 1957, § 51, No. 14, Acts of Parliament, 1957 (India).
[14] ANI Media Pvt. Ltd. v. OpenAI Inc, CS (COMM) 1028/2024.
[15] The Copyright Act, 1957, § 52, No. 14, Acts of Parliament, 1957 (India).

rights. This ambiguity threatens both innovation-driven AI development and the economic sustainability of original creators.

Finally, the autonomy and opacity of AI systems generate an accountability dilemma. In absence of legal personality under law, AI is incapable of bearing rights or liabilities, requiring responsibility for infringement to be traced back to human actors i.e., developers, deployers, or users.[16] Imposing liability on human actors for unpredictable outputs of self-learning AI systems either imposes disproportionate burden or leaves injured parties without effective remedies. This unresolved allocation of responsibility highlights the need for a coherent regulatory framework capable of reconciling technological autonomy with legal accountability.

3. Review Of Existing Literature And Research Gap

Contemporary scholarship on AI and IPR has examined the incompatibility between AI-generated outputs and human-centric legal frameworks primarily, with global rejection of AI inventorship in the *DABUS* decisions across United States,[17] the United Kingdom,[18] and the European Union.[19] Existing regimes presupposes human conception, intention and non-human exclusion, while this jurisprudential position is well documented, the literature offers limited guidance on constructive regulatory alternatives.

In India, the research gap is more pronounced. Existing scholarship predominantly interprets provisions of Patents Act, 1970[20] and Copyright Act, 1957[21] through a traditional anthropocentric lens, often reiterating standards of modicum of creativity, novelty and human agency.[22] There is insufficient analysis on adapting these standards to outputs generated by AI systems and statistical probability rather than human judgment. While precedents reinforce necessity of natural person, scholarship has not addressed the vacuum created when AI acts as

[16] Vishnu S, *Navigating the Grey Area: Copyright Implications of AI Generated Content,* JIPR, Vol. 29, No. 2 (2024); A. Kirakosyan, *Intellectual Property Ownership of AI-Generated Content,* Digital Law Journal, Vol. 4, No. 3, (2023).
[17] Stephen Thaler v. Katherine K. Vidal, Under Secretary of Commerce for Intellectual Property and Director of the United States Patent & Trademark Office, 43 F.4th 1207 (Fed. Cir. 2022).
[18] Thaler v. Comptroller-General of Patents, Designs and Trademarks, (2023) UKSC 49.
[19] Designation of Inventor/DABUS, J 0008/20 and J0009/20.
[20] The Patents Act, 1970, No. 39, Acts of Parliament, 1970 (India).
[21] The Copyright Act, 1957, No. 14, Acts of Parliament, 1957 (India).
[22] Bishwanath Prasad Radhey Shyam v. Hindustan Metal Industries, (1979) 2 SCC 511; R.G. Anand v. Delux Films, (1978) 4 SCC 118.

joint-inventor or co-author.[23]

Furthermore, despite growing discourse on AI training and data scraping, there is a lack of India-centric analysis regarding compatibility with statutory exceptions.[24] The *ANI Media* case[25] underscores this uncertainty, yet scholarly engagement as to whether algorithmic processing constitutes 'non-expressive use' remains limited lacking framework for AI-generated works beyond categorizing it as mere tool.[26]

Another critical gap concerns liability for IP infringement by autonomous systems. While comparative literature explores strict liability and product liability models, scholarship has not examined their adaptation in India's legal frameworks of reconciliation between technical effect,[27] and conception. The absence of accountability framework, leaves innovators and rights holders without legal certainty.

Accordingly, this study addresses these gaps by offering a focused Indian perspective integrating doctrinal analysis and comparative jurisprudence. It moves beyond the binary debate of recognition and rejection of AI work by proposing a hybrid regulatory approach based on deemed inventorship and innovation oversight.[28] With open-source AI development at the centre of the inquiry, this research contributes an original framework to reconcile technological innovation with IP protection within India's digital landscape.

4. Framework Of Inquiry: Objectives & Questions

The primary objective of this study is to critically examine the inadequacy of India's IPR framework against rise of autonomous and open-source AI and develop a doctrinal foundation for re-evaluating protection to balance innovation incentives with legal accountability.

Specifically, the objectives of this research are as follows:

- To critically analyse the personhood requirement embedded in Sec. 6[29] and Sec. 2(d),[30]

[23] Rupendra Kashyap v. Jiwan Publishing House (P) Ltd., (1994) 28 DRJ 286.
[24] The Copyright Act, 1957, § 52, No. 14, Acts of Parliament, 1957 (India).
[25] Supra Note 13.
[26] Lokesh Vyas & Luca Schirru, *Indian Copyright Law in the Age of GenAI: Knowledge/Power, Patchwork and Peril,* 20 Indian J.L. & Tech, 27 (2024).
[27] Ferid Allani v. Union of India, (2020) 266 DLT 767.
[28] Office of the Controller Gen. of Pats., Designs & Trade Marks, Guidelines for Examination of Computer Related Inventions, CRI, 2025 (India).
[29] The Patents Act, 1970, § 6, No. 39, Acts of Parliament, 1970 (India).
[30] The Copyright Act, 1957, § 2(d), No. 14, Acts of Parliament, 1957 (India).

in addressing autonomous machine creations.

- Analyse the legal challenges surrounding data scraping for AI training as a potential act of infringement under Sec. 51,[31] weighing it against fair dealing exceptions of Sec. 52.[32]

- Evaluate the judicial responses to AI-related IPR cases globally and propose a specialized regulatory framework for India.

- To explore potential regulatory models for allocating ownership and liability involving AI-generated IP, focusing on deemed inventorship and innovation oversight mechanisms.

The research is guided by the following questions:

- **RQ1:** To what extent can *'true and first inventor'* under Sec. 6,[33] be reinterpreted or restructured to accommodate AI inventions without conferring legal personhood?

- **RQ2:** Does large scale data extraction for training AI models constitute permissible transformative use or amounts to infringement under current framework?

- **RQ3:** Which regulatory and liability allocation models can be adopted to address the accountability gap created by autonomous AI while maintaining incentives?

5. Significance And Original Contribution

The significance of this study lies in its shift from the binary debate of AI personhood toward a rational, policy-oriented approach that recognizes the functional role of autonomous systems while upholding foundational IPR principles. By analysing the realities of collaborative, open-source innovation rather than abstract theory, the research addresses a critical gap in Indian legal scholarship regarding data scraping and intersection of technological practices with statutory limitations. The work proposes hybrid regulatory framework, which seeks to attribute rights to human actors exercising meaningful control or investment balancing public access to knowledge with private protection.

[31] The Copyright Act, 1957, § 51, No. 14, Acts of Parliament, 1957 (India).
[32] The Copyright Act, 1957, § 52, No. 14, Acts of Parliament, 1957 (India).
[33] The Patents Act, 1970, § 6, No. 39, Acts of Parliament, 1970 (India).

6. Competing Theoretical Approaches To AI And IPR

The scholarly discourse regarding AI and IPR is currently defined by doctrinal divide between requirement of natural person and promotion of technology. While international scholarship is dominated by the global rejection of the *DABUS* applications, Indian literature attempts to reconcile the mental act and human intellect with statutory requirements.[34]

A significant body of scholarship maintains that IPR is an extension of human personality and intellect and does not envisage non-human authorship.[35] This position is reflected in statutes of UK[36] and Ireland[37] prioritizing human agency, connecting rights with legal personality and granting protection only to legally recognized authors.[38] International position remains solidified with global rejection of AI inventorship claims in *DABUS* and authorship in other applications. Jurisdictions of United States,[39] the United Kingdom, and the European Union[40] have uniformly concluded that inventorship under existing patent statutes is limited to natural persons and cannot accommodate non-human innovation without legislative intervention. In India, administrative developments such as the brief recognition and subsequent withdrawal of co-authorship in the *RAGHAV* AI showcases uncertainty as precedents recognise protection being reserved for original expressions with human intervention.[41] With traditional statutes, the derivative work is deemed as mere mechanical transformations of datasets failing tests of skill and judgment or conception.[42] This position undermines the primary objective of IP law, i.e., commercial incentives.

Conversely, to accommodate realities of technological advancements, a purposive interpretation of law is required. The primary objective of IPR is to incentivize innovation,

[34] Rohan Deshpande, Karan Kamath, *Patentability of Inventions created by AI – the DABUS claims from an Indian Perspective,* Journal of Intellectual Property Law & Practice, Vol. 15. Iss. 11, (2020).
[35] Aditi Bharti & Dr. Gagandeep Kaur, *Determining Authorship & Ownership of AI-Generated Work under Indian Copyright Law,* ISSN 2323-5233, Vol. 14, Iss. 2 (2024).
[36] U.K. Copyright, Designs and Patents Act, 1988, § 9(3).
[37] Irish Copyright and Related Rights Act, 2000, §21.
[38] Xiao Y, *Decoding Authorship: Is there Really no place for an Algorithmic Author under Copyright law?,* 54 IIC 5 (2023).
[39] U.S. Copyright Office Review Board*, Second Request for Reconsideration for Refusal to Register A Recent Entrance to Paradise,* Feb, (2022).
[40] Directive (EU) 2019/790 of the European Parliament and of the Council of 17 April 2019 on Copyright and Related Rights in the Digital Single Market, Articles 3 and 4.
[41] Shivang Tripathi & Neha Singh, *Charting A Roadmap For Integration of AI and IPR: Analysing the Domestic and Global Regulatory Framework Posing Humanistic Challenge,* I HPNLU IPIR 1 (2024).
[42] Burrow Gillies Lithographic Co. Sarony, 111 U.S. 53 (1884); Fiest Publications v. Rural Telephone Service Co., 499 U.S. 340 (1991).

which is undermined if high-utility autonomous outputs are left in a legal vacuum.[43] The Technical Effect doctrine recently affirmed in CRI Guidelines 2025[44] suggests that if an AI-generated design demonstrates a concrete technical contribution, its origin should be secondary to its utility. This is supported by opening in Sec. 2(d)(vi) of Act,[45] which attributes authorship to the person who *causes* a computer-generated work to be created, suggesting a shift from facilitator being an author to creator being an author.[46]

Critically, as highlighted by *ANI Media* litigation, the ingestion of data for AI training raises concerns. Scholarly views are split in this regard, with former viewing unauthorized scraping as a prohibited reproduction in material form u/s. 51,[47] while arguing digital storage constituting copy regardless of its transient nature.[48] The latter, however, invoke the Idea-Expression Dichotomy**,** arguing that machine learning is a 'non-expressive' and intermediate use.[49] This suggests algorithmic processing should be protected as a Transformative Use, provided it extracts ideas to create a new technological tool rather than replicating the protected expression of ideas.[50]

The recent policy initiatives, such as the DPIIT Working Paper,[51] are moving toward a *'Compulsory Licensing'* model as a middle ground for AI-driven innovation. Instead of debating personhood, this suggests, the law should establish a mandatory statutory licensing scheme framework. This model addresses the accountability gap by creating a centralized Copyright Royalties Collective for AI Training (CRCAT), which would collect royalties from AI developers and distribute them to human creators based on commercialization.[52] By shifting the focus from *who is the author* to *who is being compensated*, this approach seeks to mitigate the erosion of creative incentives while ensuring that developers are not adversely affected by market failure in data licensing. Effectively, this showcases evolution from doctrinal questions

[43] Erica Fraser, *Computers as Inventors – Legal and Policy Implications of Artificial Intelligence on Patent Law, SCRIPTed,* Vol. 13, Issue 3 (2016).
[44] Supra Note 27.
[45] The Copyright Act, 1957, § 2(d)(vi), No. 14, Acts of Parliament, 1957 (India).
[46] Avishek Chakraborty, *Authorship of AI Generated Works under the Copyright Act, 1957: An Analytical Study,* 8 NIRMA U. L.J. 37 (2019).
[47] The Copyright Act, 1957, § 51, No. 14, Acts of Parliament, 1957 (India).
[48] Arul George Scaria, *Does Human Learning equal Machine Learning? High Court of Delhi to rule on lawfulness of TDM for Machine Learning*, Kluwer Copyright Blog (Nov. 25, 2024)
[49] Supra Note 25.
[50] Matthew Sag, *The New Legal Landscape for Text Mining and Machine Learning,* 66 J. Copyright Soc'y, U.S.A 291 (2019).
[51] Dept. for Promotion of Indus. & Internal Trade, Ministry of Com. & Indus., Working Paper on Generative AI and Copyright – Part I, Working Paper No. P-24029/34/2025-IPR-VII (2025) (India).
[52] Ibid.

of inventorship toward a Facilitator-centric Ownership model, where rights vest in the human entities while ensuring essential oversight and intellectual investment.

7. Research Methodology

The study employs a qualitative, doctrinal analysis approach, centred on a systematic black-letter analysis of the Patents Act, 1970,[53] the Copyright Act, 1957[54], and the CRI Guidelines 2025.[55] The statutory thresholds specifically of personhood requirement in Sec. 2 and originality standard in judicial precedents are analysed to identify legal friction points created by autonomous AI. Primary data is synthesized with secondary insights from WIPO, NITI Aayog, and the DPIIT Working Paper[56] to review Indian law with global positions and emerging practices.

The analytical framework is further enriched by a multi-jurisdictional comparative study of the US, UK, EU, and South Africa, focusing on division between Human-Centric and Technologically evolved judicial responses.[57] Regulatory gaps are identified by evaluating the Significant Oversight model against India's unique socio-economic realities. This thesis ends in a policy-oriented assessment of hybrid frameworks and necessity of maintaining an incentive-based innovation ecosystem in India.

8. Doctrinal Analysis And Key Findings

The doctrinal analysis reveals that the existing Indian IP framework are not equipped to accommodate the realities of AI systems. While the law seeks to promote technological advancement, statutory language remains firm in intervention of natural persons.[58] The results of this study categorize current position and proposes solutions in four dimension:

Under patent law, the requirement of natural person true and first inventor under Sec. 6 operates as a substantive barrier to the protection of AI-generated inventions coupled by procedural obligations under Sec. 7 and 10 linking inventorship to conception and human mind. Across

[53] Supra Note 19.
[54] Supra Note 20.
[55] Supra Note 25.
[56] Supra Note 50.
[57] Saravanan A. & Deva Prasad M., *AI as an Inventor Debate under the Patent Law: A Post-DABUS Comparative Analysis,* 47 Eur. Intell. Prop. Rev. 26 (2025).
[58] Japman Singh Bagga, *Legal Accountability for AI-driven Intellectual Property Infringements: An Analysis of International and Indian Laws,* SCC Online Blog (Aug. 30, 2025).

jurisdictions, autonomous AI systems cannot satisfy these legal prerequisites due to their lack of legal personality and capacity to perform juridical acts. The Indian patent regime, in the absence of legislative clarification, compels innovators to attribute inventorship to human actors without material contribution to the inventive step, distorting the doctrinal integrity of inventorship and undermining transparency in the patent system.[59]

In the copyright domain, although Sec. 2(d)(vi),[60] recognises computer-generated works, authorship is statutorily assigned to the person who *causes* the work to be created, preserving a human-centric attribution model. Judicial interpretation, particularly the originality standard restricts protection to works demonstrating a modicum of creativity arising from human skill and judgment. Autonomous AI-generated outputs, which are the product of algorithmic processing and statistical calculation, do not readily meet this threshold. Consequently, such works fall into the public domain, potentially discouraging investment in AI-driven creative industries and creating uncertainty regarding ownership and enforcement.[61]

The analysis of data scraping practices reveals a significant conflict between technological innovation and copyright. Training LLMs requires extensive data ingestion, often involving copyrighted material extracted from proprietary databases. Under Sec. 51,[62] such unauthorised reproduction constitutes prima facie infringement unless it falls within the fair dealing exceptions of Sec. 52.[63] The commercial context and market impact of AI training complicates classification of data scraping as a permissible transformative use. With uncertainty, unrestrained data extraction may diminish incentives for original authors.[64]

The emergence of an accountability and liability gap in AI-driven IP infringement is identified. As law does not recognise AI systems with legal personality capable of bearing rights or obligations, liability is allocated to human stakeholders. However, the autonomous and opaque nature of advanced AI systems complicates this process, as harmful or infringing outputs may arise without foreseeable human intent. Imposing strict or absolute liability in such cases risks discouraging innovation while lack of standards undermine enforcement and access to

[59] Aneesh V. Pillai, *AI-Assisted Inventions and Inventorship: A Commentary on Thaler v. Comptroller-General for Strengthening of India's Patent Framework,* 14 Christ Univ. L.J. 2 (2025).
[60] The Copyright Act, 1957, § 2(d)(vi), No. 14, Acts of Parliament, 1957 (India).
[61] Nikhil Mishra & Digvijay Singh, *AI-Generated Work and its Implications on Copyright Law in India,* 30 J. Intel. Prop. 35 (2025).
[62] The Copyright Act, 1957, § 51, No. 14, Acts of Parliament, 1957 (India).
[63] The Copyright Act, 1957, § 52, No. 14, Acts of Parliament, 1957 (India).
[64] U.S. Copyright Office, *Copyright and Artificial Intelligence: Part I, Digital Replicas & AI Training,* (May 2025).

remedies highlighting inadequacy of traditional doctrines.

Ultimately, these findings demonstrate that India's current framework, if applied without adaptation, risks either excluding AI-generated innovation from protection or imposing disproportionate legal burdens on human actors. It needs regulatory response preserving both incentive structure of IP law while acknowledging the operational autonomy of AI systems. This analysis provides doctrinal basis for hybrid model on deemed inventorship, innovation oversight and liability allocation.

The current IP law vacuum stems from a rigid, binary approach of legal personality that fails to distinguish between automatic tools and autonomic agency.[65] A shift towards a Cluster Concept of Personhood,[66] where legal status is viewed as a flexible set of incidents rather than a monolithic right bridges the gap. By adopting a model of Passive Personhood**,** regime could grant AI the limited right to be named as a co-author or joint-inventor serving the public interest of transparency while reserving property and moral rights exclusively for natural persons. This recognizes the AI as a Functional Agent[67] and advanced instrument of innovation, acknowledging the reality of self-evolving engines without resulting in the legal uncertainty of machine-owned assets.

7. Recaliberating Intellectual Property For Autonomous AI

To bridge these doctrinal gaps, this study proposes a Hybrid Regulatory Framework that integrates autonomic agency into the regime through three pillars. Firstly, a Limited Attributional Model allowing joint authorship or inventorship, where the AI is credited with passive right while the human facilitator retains economic interests. Secondly, an amendment to recognize AI as a Sui Generis Electronic Agent, enabling a Graded Liability System that balances strict liability for deployers with the use of traceable logs as evidence of autonomous decision-making. Finally, to resolve the data ingestion deadlock, a Mandatory Statutory License[68] should be instituted, ensuring that while AI agents are permitted to ingest data for training, human creators are equitably compensated through a centralized royalty collective.

[65] Luc Steeels, *Defining AI for purposes of Ethics and Legal Regulations*, Catalan Institute of Research and Advanced Studies, (2024).
[66] Visa A.J. Kurki, *A Theory of Legal Personhood*, Oxford University Press, Vol. 30, Issue 2 (2022).
[67] Mark O. Riedl & Deven R. Desai, *AI Agents & the Law*, Proceedings of the 2025 AAAI/ACM Conference on AI, Ethics & Society, (2025).
[68] Supra Note 50.

7. Conclusion

The intersection of AI and IPR represents the most significant challenge to anthropocentric foundations of legal systems in the 21st century. This research demonstrates that tension between transparent nature of open-source AI and the protectionist framework of traditional IPR is a fundamental statutory misalignment. In India, the failure of the Patents Act and Copyright Act to recognize non-human entities risks stagnating the Digital India and #AIforAll initiatives. As autonomous systems generate high-utility works, the rigid rejection of machine inventorship in *DABUS* and *RAGHAV* precedents, threatens to drive innovation toward the opacity of trade secrecy, eroding public disclosure objectives of patent system. Furthermore, the conflict between large-scale data ingestion and the economic rights of human creators, aggravated by the black box nature of algorithmic models, necessitates a transition toward a flexible, *sui generis* IPR system. By recognizing labour of human designers and implementing a human guardian mechanism for IP administration, current accountability gap can be solved and establish a regulatory roadmap that preserves economic incentives while redefining the social contract between the creator, the machine, and the public interest.