Closing the Remedies Gap: Implementing a Tiered Liability Matrix (AAILM) for Unintentional AI Patent Infringement in India

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ABSTRACT

Artificial Intelligence's (AI') recent times growth has proved to be extremely beneficial, starting from students and teachers to big and small industries. Micro Small and Medium Enterprises ('MSME') in India have developed prototypes, designs, and models, but it has its own shortcomings since the AI generated results bear similarity to components, processes already protected by patent law. Neither is there any distinction provided between intentional and unintentional infringement in the India's Patent framework, nor does it recognise AI as inventor. Subsequently, when MSMEs unintentionally copy patented works while using AI and incur penalties, it discourages innovation and technology. This paper aims to shed light on the urgency to acknowledge the peculiar character of AI infringement. Based on doctrinal analysis, global trends, and policy considerations, the paper has proposed a structured AI-Attribution and Liability Matrix ('AAILM'), a nuanced construct distributing responsibility between the human user, the AI developer, and the autonomous model based on their degree of contribution and control. It strikes a balance between maintaining patent rights and avoiding excessive penalization of MSMEs while strengthening India's innovation ecosystem in keeping intellectual property norms in step with emerging AI realities.

Keywords: AI-Generated Infringement, intentional v. unintentional infringement, MSME innovation, Patent Liability Matri

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INTRODUCTION

Artificial intelligence has rapidly become foundational to the Indian manufacturing and digital economy. MSMEs have increasingly adopted AI design tools, automated computer aided design (CAD') systems and optimisation algorithms since they have proved to be faster, efficient, and cost-friendly than conventional R&D method. However, since AI is developing at a fast pace, the output produced is neither controlled nor intended by the MSME.

In various reported cases worldwide, AI systems have designed mechanical parts, pharmaceutical molecules, circuit designs, and software code similar to already patented inventions. Unlike human engineers, AI does not have the ability to check its output against a patent database unless it is programmed to do so. This makes the likelihood of unintentional infringement much greater for MSMEs which lack legal departments, patent counsel, or due- diligence capabilities.

Currently, The Patents Act[2] does not recognize this technological context or the structural inequalities it generates. Infringement under Section 104A[3] is treated as homogenous regardless of intent, capability, or even mode of creation. The law assumes that all infringers whether a multination corporation with a dedicated intellectual property (IP') department or a small workshop relying on AI-generated designs are similarly positioned. In times of autonomous and semi- autonomous creation, this assumption is doctrinally and practically unsound.

The present paper tries to fill this gap. It places the problem at the juncture of AI design systems, MSME capacities, and the inflexible liability regime of Indian patent law. This is not done to dilute the rights of a patentee but to create a balanced regime wherein liability is proportionate to the control, foreseeability, and the extent of human intervention.

1. PROBLEM STATEMENT

The core doctrinal issue is that in patent infringements in India, the norm is a form of strict liability, i.e., the question of intention plays no role, nor does the source of creation. Section 48 of the Patents Act gives the patentee absolute exclusive rights, and Indian jurisprudence, right from *F.*

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[2] The Patents Act, 1970 (Act 39 of 1970).
[3] The Patents Act, 1970 (Act 39 of 1970), s. 104A.

Hoffmann-La Roche v. Cipla[4] to *Merck Sharp & Dohme v. Glenmark[5]* has followed with consistency that infringement is only a question of comparison, not a state of mind.

This creates three systemic problems in the context of AI-generated works:

First, it is unrealistic for MSMEs to audit all AI outputs. Most of them depend on third party software, such as Auto CAD-AI plugins, generative design software, or cloud-based optimization engines. They are incapable of performing extensive prior-art or patent checks before commercializing each design iteration. The control and predictability assumptions regarding AI outputs by MSMEs are both technically and economically wrong.

Whereas The Patent Act makes no provision to distinguish between those designs that are derived from AI training data and those independently created by human engineers, courts are increasingly confronted with questions of AI inventorship in various jurisdictions. For example, the Device for the Autonomous Bootstrapping of United Sentience (DABUS') cases (US Federal Circuit 2022[6]; UK Court of Appeal 2021[7]; EPO's 2020 rejection[8]) all held that AI cannot be an inventor because patents require a natural person.

DABUS application filed at the IPO office[9] in India for recognition of AI inventorship was rejected by interpreting section 6 of the Patents Act, 1970. This decision aligned with the ruling if Supreme court in case of *V.B. Mohammed Ibrahim v. Alfred Schafranek[10],* recognizing only natural persons possessing human skill and ingenuity as inventors. However, a very significant gap is still unattended- If AI cannot be an inventor, can it be made liable for infringement of a patent?

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[4] F. Hoffmann-La Roche Ltd. v. Cipla Ltd., 148 (2008) DLT 598

[5] Merck Sharp & Dohme Corp. v. Glenmark Pharmaceuticals Ltd., 221 (2015) DLT 563.

[6] Thaler v. Vidal, 43 F.4th 1207 (Fed. Cir. 2022).

[7] Thaler v. Comptroller-General of Patents, Designs and Trade Marks, [2021] EWCA Civ 1374.

[8] European Patent Office, Decision of the Receiving Section refusing EP 18 275 163 and EP 18 275 174 (Jan. 27, 2020).

[9] *In Re: Stephen L. Thaler*, Patent Application No. 202017019068 (Indian Patent Office, Aug. 10, 2021).

[10] *V.B. Mohammed Ibrahim v. Alfred Schafranek*, AIR 1960 SC 247.

Lastly, affixing a uniform liability on MSMEs would discourage AI use, undermining the growth of local industries intended under policies like Make in India[11], Vocal for Local[12], Digital MSME[13] and IndiaAI Mission[14]. These restrictive measures would altogether lead to small businesses avoiding using AI, curtailing innovation, and technology at the very stage where it is needed.

2. Doctrinal Incoherence: The Strict Liability Gap in the Age of AI

As it stands, the Indian system punishes technologically inevitable risks without corresponding remedies or defences. In this paper, arguments are advanced to establish that a differentiated liability framework is not only doctrinally coherent but economically indispensable.

2.1 The Doctrinal Structure of Patent Infringement within India - The Strict Liability Paradigm

Under Indian law, patent infringement is strict civil liability, and the right conferred under Section 48 of the Patents Act, 1970[15], is absolute: infringement is established solely by a technical comparison of the impugned product or process with the patent claims. The statutory scheme does not require any intention, knowledge, or willfulness for the finding of liability to arise.

Indian courts have repeatedly reiterated this position: In *F. Hoffmann-La Roche Ltd. v. Cipla Ltd.,* the Delhi High Court[16], ruled that when a comparison proves similarity and overlap, the intention of infringer is irrelevant in deciding culpability. Infringement of patent was described as "strict and technical comparison exercise," irrespective of the mental element behind the act as given in the case of *Merck Sharp & Dohme v. Glenmark[17]*. The logic traces back to *Raj Parkash v. Mangat Ram Chowdhary[18]*, where the court held that defendant infringed even though he acted honestly and that would not escape him from liability.

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[11] *See* Department for Promotion of Industry and Internal Trade, "Make in India" (Ministry of Commerce and Industry, Government of India, 2014), *available at:* https://www.makeinindia.com (last visited on Dec. 31, 2025).
[12] NITI Aayog, "Vocal for Local Initiative" (Aspirational Blocks Programme, Government of India, 2024).
[13] Ministry of Micro, Small and Medium Enterprises, "Digital MSME Scheme" (Government of India, 2017), *available at:* https://msme.gov.in (last visited on Dec. 31, 2025).
[14] Ministry of Electronics and Information Technology, "IndiaAI Mission" (Government of India, 2023) (detailing the national strategy for an inclusive AI ecosystem and sovereign AI capacity).
[15] The Patents Act, 1970 (Act 39 of 1970), s. 48.
[16] *Hoffmann-La Roche Ltd. v. Cipla Ltd.*, (2009) 40 PTC 125 (Del)
[17] *Merck Sharp & Dohme Corp. v. Glenmark Pharmaceuticals Ltd.*, (2015) 64 PTC 417 (Del), *cited in* n. 4.
[18] Raj Parkash v. Mangat Ram Choudhary, AIR 1978 Del 1.

Even though the MSME users had no idea of the patent, they are a direct infringer. The strict liability finding is undercut. However, by the principle of innocent infringement, limiting the patentee's financial remedies (damages or account of profits) for past acts committed before the infringer gained knowledge, as provided under Section 114[19] of the Patents Act. This creates the central remedies gap that the Liability Matrix is designed to close.

2.2 The Global DABUS Consensus and its Implications for Infringement

The global jurisprudence on AI and patent law is dominated by the results of the DABUS litigation from jurisdictions like Australia, United Kingdom, South Africa, among many others, which is exclusively concerned with inventorship but, in that sense, fundamentally frames the legal boundary of AI agency that in turn dictates where infringement liability needs to be placed.

Across major jurisdictions, courts reached a uniform conclusion: In the United States (*Thaler v. Vidal*)[20], United Kingdom (*Thaler v. Comptroller-General of Patents*)[21], and at the European Patent Office, the courts have clearly held that AI cannot be an inventor since it does not have legal personhood. A minority opinion of Lord Briss in UK[22] is significant as it acknowledged the legal gap existing due to strict statutory language and AI generated anonymity.

This has two main implications for AI in India:

1. AI Cannot be an Infringer: Since AI does not possess legal personhood, it neither enjoys the status of inventor, nor can it be attributed as infringer or subject to accountability. The AI cannot be sued, enjoined, or ordered to pay damages.

2. Liability is Forced onto Human Actors: All liability and responsibility is forcefully assigned to the human or corporate entity (user and deployer), since no alternative

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[19] The Patents Act, 1970 (Act 39 of 1970), s. 114.
[20] *Thaler v. Vidal*, 43 F. 4th 1207 (Fed. Cir. 2022), *cited in* n. 5.
[21] *Thaler v. Comptroller-General of Patents, Designs and Trade Marks*, [2023] UKSC 49, *cited in* n.6.
[22] *Thaler v. Comptroller-General of Patents, Designs and Trade Marks*, [2021] EWCA Civ 1374, para 98 (per Birss, LJ, dissenting): "There is no rule of law that a patent application must name a person as the inventor.
Section 13(2)(a) requires the applicant to identify the person whom he believes to be the inventor... The Comptroller's stance is that even though the applicant has identified the entity he believes to be the inventor,
because that entity is a machine, the application must be taken to be withdrawn. In my judgment that is wrong."

exists. This makes the MSME user the prime infringer in patent litigation, though economically limited.

2.3 Why the Indian Patent Act is Ill-Suited for AI-Generated Outputs

The Patent Act 1970[23] is structurally insufficient and ill- equipped to effectively cater to modern day challenges of AI infringement and liability fixation.

(1) Lack of Statutory Secondary Liability- The concept of contributory and induced infringement is not explicitly included in the Indian patents act. This gap leads to escape of the developer from paying compensation for the infringement it facilitated.

(2) The Failure of the Tool Equivalence Assumption- The patent law does not distinguish in the treatment of AI, which is a complex, opaque system, and simple tool such as CAD. However, it is no surprise that AI operate as a "black box"[24] often escaping human comprehension, and users therefore cannot rely on the design without proper checks.

(3) Increased MSME Vulnerability- Doctrinal coherence of strict liability means practical injustice to the MSMEs. These small players, pushed by policy to use AI for innovation, are threatened with injunctions and possible damages on the basis of designs they do not personally create; cannot conceivably review; or independently verify by professional prior searches due to their financial and technical limitations.

The consequence at the structural level of these deficiencies is that the law defaults to strict liability against the user, bereft of doctrinal tools to allocate responsibility to the party best positioned to prevent the infringement-the developer of the AI-so that full compensation to patentees and meaningful systemic deterrence is precluded.

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[23] *The Patents Act, 1970*, *cited in* n. 1.

[24] The "black box" phenomenon refers to the lack of transparency in AI decision-making processes where the internal workings of the system are hidden from the user. *See* W. Nicholson Price II, "The Black Box Innovation," 132 *Harv. L. Rev.* 423 (2018) (discussing how the opacity of black-box algorithms complicates traditional legal frameworks).

3.   The Liability Problem for MSMEs Using AI: A Doctrinal and Economic Impasse

The tension between India's strict liability patent law and the autonomous nature of generative AI creates a severe economic and doctrinal impasse, with MSMEs bearing disproportionate, uninsurable risk.

3.1 Structural Asymmetry: AI Violates the Assumption of Human Control

Indian patent law is based on a strict liability structure that presumes an underlying human capacity to foresee risks, control design choices, and perform reasonable due diligence. AI- generated outputs violate this core assumption:

(1) Lack of Control: The MSME user does not decide upon the intermediate logic, latent representations, and optimization pathways of this AI model. The design is generated rather than being consciously constructed.

(2) Non-determinism: AI systems are probabilistic and opaque. The law assumes deterministic tools and treats AI's unpredictable output no differently than a knowing human copy. The user becomes liable for the result of input they neither foresee, nor intended.

3.2 MSMEs Are Uniquely Vulnerable to Algorithmic Infringement

The government is encouraging the MSMEs to adopt AI tools, but its structure increases the patent infringement risk.

(1)   Financial and Cognitive Constraint: Unlike large firms, the majority of MSMEs lack the financial wherewithal to conduct extensive FTO (Freedom to Operate) searches or even professional IP counsel. They also routinely lack technical literacy required to understand, much less audit, how generative AI designs. Patent law, in assuming diligence, presumes a capacity that MSMEs generally do not have.

(2)   Infrastructure Constraint: MSMEs, reliant on cloud-based AI tools, have no visibility into the developer's infrastructure: the training datasets, embedded model functions, and lineage tracking. They are not able to audit the design provenance needed to prove innocence or non-infringement.

This asymmetry in the structure therefore results in pushing MSMEs to adopt high-risk technology for which the MSMEs must bear strict liability for outputs over which they have no control, thus creating a developmental contradiction to India's Industry 4.0 objectives.

3.3 The Current Remedial Framework Exacerbates Harm

Section 108 of the Patents Act, 1970[25], dealing with final remedies, does not mitigate disproportionate harm to an innocent MSME infringer:

(1) Disproportionate Injunctions: Even where the MSME succeeds in limiting damages by establishing innocent infringement, the injunction remains the primary and often automatic remedy upon a finding of liability. For a small manufacturer relying on an AI- designed component-e.g., in automotive or in drone technology-an injunction stopping the assembly line is an economically devastating penalty, amounting to business closure.

(2) Damages are Ineffective for Patentee: On the other hand, this innocent infringer defense deprives the patentee of recovering damages from MSME for its past commercial acts, thus limiting compensation, and undermining one of the deterrent functions of patent protection.

3.4 The Upstream Risk Problem: The Doctrinal Dead-End

This means that the developer, from a risk perspective, controls the input, or training data, the process, which are algorithmic safeguards, and the output filters. They are in the best position to prevent systemic infringement.

However, Indian patent law cannot attribute risk upstream because:

(1) Secondary Liability Void: Studies have confirmed that Indian law does not have any express statutory provision relating to contributory infringement[26] and that the threshold

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[25] The Patents Act, 1970 (Act 39 of 1970), s. 108.

[26] *See* Adarsh Ramanujan, *Patents Law and Practice* 485 (Thomson Reuters, Gurugram, 3rd edn., 2020) (observing that unlike the US or UK, the Indian Patents Act, 1970 does not contain express provisions for contributory or indirect infringement); *see also* Elizabeth Verkey, *Law of Patents* 312 (Eastern Book Company, Lucknow, 2nd edn., 2012).

of scienter for induced infringement is high[27] (knowledge of the particular patent), which AI developers can easily deny.

(2) Volition Assumption: Patent jurisprudence assumes volition. In other words, developers create general-purpose models, not specific infringing outputs. Thus, the knowledge or intent requirement for imposing secondary liability is hard to meet.[28]

Consequently, application of strict liability falls foul of all relevant policy axes inasmuch as it cannot fully compensate the patentee, nor does it deter systemic negligence by the developer. Moreover, it severely penalises the MSME user and chills AI adoption in critical sectors.[29]

4.   **The Proposed Solution: The AI-Attributed Infringement Liability Matrix AAILM**

The structural deficiencies identified in Parts I–III make clear that the Indian patent system which is founded on the assumption that human intention, human agency, and human interpretability underlie all inventive activity is misaligned with the realities of AI- assisted design. The purpose of this Part is therefore to articulate a coherent, legally workable model for allocating responsibility when AI produces outputs that overlap with patented claims.

The proposed solution is the AI-Attributed Infringement Liability Matrix (AAILM') - a three-tier liability apportionment mechanism based on control, knowledge, and the ability to prevent the infringing outcome. AAILM provides a principled foundation for the distribution of liability-

(1)   Between the user of the AI agent (Tier 1)

(2)   Its developer (Tier 2), and

(3)   Shared responsibility in the case of a genuinely autonomous system behaviour (Tier 3).

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[27] *FMC Corporation v. GSP Crop Science Pvt. Ltd.*, 2022 SCC OnLine Del 3784; *see also Global-Tech Appliances, Inc. v. SEB S.A.*, 563 U.S. 754 (2011) (discussing the "willful blindness" standard in induced infringement).

[28] Gyandeep Chaudhary, "Artificial Intelligence: The Liability Paradox" 10 *ILI Law Review* 147 (2020) (noting that the autonomous nature of AI decision-making creates a "transparency gap" where the human developer's volition is disconnected from the machine's infringing output).

[29] Anat Lior, "AI Strict Liability Vis-À-Vis AI Monopolization" 22 *Colum. Sci. & Tech. L. Rev.* 90 (2020) (arguing that a strict liability regime for AI could erect barriers to entry for small companies and MSMEs, ultimately stifling innovation and leading to market monopolization by well-financed entities).

Presented here is a normative proposition of legislative alteration, thereby implementing MeitY's principle of "graded responsibility" within the Patents Act.[30]

4.1 Tier 1- Direct User Liability

The liability of the human user needs to remain the main anchor for patent law, but this needs to be curtailed in situations where the user has meaningful control in the design process. Tier 1 applies when the MSME or designer: Instructs the AI system to reproduce, alter, or reverse-engineer any known product; Explicitly provides patented specifications; or Utilizes AI only as an assistive tool and retains substantive manual control over the final technical configuration.

In such situations, strict liability already under Section 48[31] is adequate. The user has deliberately initiated the creative act and thus can have no defence that the AI "cause" the infringement independently. Tier 1 thereby upholds the corrective and deterrent goals of patent law in situations of explicit user volition but does not extend to situations where the infringing configuration results from internal operations of the AI that the user did not intend and could not technically have comprehended.

4.2 Tier 2- AI-Induced Liability

Developers are the only actors with insight into and control over the system architecture, training data, and risk-mitigation protocols. They are in charge of the model's choice of learning datasets, postprocessing output filtration, and whether infringement-avoiding measures exist. Thus, when the AI produces infringing technical features because the developer failed to establish good enough governance, responsibility must shift upstream.

This tier introduces Systemic Induced Infringement, a normative standard based not on intent to infringe, but on the developer's superior capacity to foresee and prevent systemic risk. This standard operates by linking liability to a policy-informed scienter, drawing on the principle that liability should follow control and knowledge.

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[30] Ministry of Electronics and Information Technology, *IndiaAI 2023: Expert Group Report* (Government of India, New Delhi, 2023) (advocating for a "graded responsibility" framework where liability is commensurate with the level of control and ability to mitigate risks in the AI lifecycle).
[31] The Patents Act, 1970 (Act 39 of 1970), s. 48.

Evidentiary Hooks for Scienter. The knowledge requirement is satisfied by evidence of willful blindness to systemic risk on the part of the developer:

1. Failure to Disclose: failure to disclose publicly whether a training dataset includes patented material-something progressive legislation, like California's AB 2013[32], which encourages disclosure of IP status in materials used to train models.

2. Failure of Technical Standard of Care: failure to implement technologically feasible safeguards relevant to commercial design tools, such as patent similarity detection tools or duplication filters.

This approach ensures full compensatory damages are recovered from the corporate entity best equipped to absorb and mitigate systemic risk, with a view to addressing the remedies gap created by innocent MSME infringement.

4.3 Tier 3- Collective Liability

Tier 3 represents the most difficult category: those cases where neither user nor developer has direct control over the infringing output, because the infringement results from emergent, autonomous algorithmic behaviour-for example, in self-optimising EV motor design or complex chemical process discovery.

In such a case, a shared responsibility structure would be applied, by borrowing common law doctrine of Joint Tortfeasors. Under this principle, when two parties (user and developer) cause a single joint injury (patent infringement), then joint liability is established.[33] The basis of this division is reasonable, given the fact that both parties reaped substantial economic benefit resulting from the deployment of the high-risk, autonomous technology.

4.4 Safe Harbours and the Need for a Certification Regime

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[32] California Assembly Bill 2013, 2023–2024 Session, "Generative Artificial Intelligence: Training Data
[33] *See* Ratanlal & Dhirajlal, *The Law of Torts* 184 (Akshay Sapre ed., 28th edn., LexisNexis, Gurugram, 2019) (defining joint tortfeasors as persons who aid, counsel, or join in the commission of a wrongful act in the furtherance of a common design or where the law imposes a joint liability for the same damage).

Statutory safe harbours would be needed to make the AAILM workable and protect the vulnerable MSME sector. These would not absolve the MSME from the finding of infringement but protect them from disproportionate remedies (damages, penalties, costs) if the MSME demonstrates:

(1) No technical expertise or control over internal AI.

(2) Inability to anticipate the infringement; and

(3) Reliance on an AI tool certified under a government- mandated IP compliance scheme.

This demands a Patent-Safe AI Certification Framework, in which there will be pre- deployment assessment of training datasets, built-in patent similarity detection, and traceability logs. Models certified under the system become legally safer for MSMEs to use, reducing the chilling effect on innovation.

4.5. **Normative Justification: Why Liability Must Follow Control**

AAILM is compatible with the basic tenets of patent law because it shifts the remedial burden without affecting the finding of infringement. The core normative assertion is that the law needs to impose responsibility on that party who has the highest degree of control over system behaviour, knowledge of how AI works, capacity to prevent infringement, and capability to absorb the financial risk.

The law needs to reflect this asymmetry where developers have maximum control while MSMEs hold minimum capacity to bear risk. In Global South, this liability framework is of much importance due to strict adherence to IP laws and subsequent stifling of innovation and technology of MSME.[34]

5. **Codifying AAILM: Proposed Amendments to the Patents Act and Systemic Oversight**

The structural deficiencies and the AAILM framework necessitate a comprehensive package of statutory and regulatory reforms to modernise Indian patent law.

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[34] Arpan Banerjee, "AI and IP: A Narrative from the Global South" 14 *Indian Journal of Law and Technology* 1 (2018) (discussing the unique challenges developing economies like India face when applying Western IP standards).

5.1. Statutory Amendments to the Patents Act, 1970

The amendments necessary to form the AAILM are as follows:

(1) New Section 108A: Once the structure of AAILM is codified, this new section should demarcate remedies with respect to control and intent and thereby empower the court to give full damages against Tier 2/3 entities while capping or reducing damages for good-faith MSMEs, that is, Tier 1. It shall also order compulsory court licensing under Sections 84[35] and 92[36] rather than injunction, where the very existence of MSME gets threatened.

(2) New Definitional Clause: S. 2(1)(ab) - Introduce a legal definition of "AI Design System," recognising AI as a non-legal entity that generates technical outputs. The new liability provisions anchor, confirming that AI cannot be an inventor or patentee, putting all liability on human actors.

(3) Modify Section 140[37]: Restrictive Conditions: Prevent unfair contractual clauses in the licensing agreements of AI tools from taking undue advantage of MSME's weak bargaining position: for example, blanket "no-liability" clauses for developers or terms forcing MSMEs to indemnify developers for AI-caused infringement.

5.2 Regulatory and Institutional Reforms for Systemic Risk Mitigation

This calls for preventive measures to gradually shift the burden from ex post litigation to ex-ante compliance, meeting MeitY's policy objective concerning system safety and resilience:

(1)   Patent-Safe AI Certification Regime-DPIIT/MeitY: Set up a Joint Certification System which would assess and accredit commercial AI design models for compliance with IP standards. Certification shall be awarded upon the developer proving the following: Provenance in training data, patent similarity filters (technical exclusion filters), and the maintenance of technical traceability logs.

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[35] The Patents Act, 1970 (Act 39 of 1970), s. 84.
[36] The Patents Act, 1970 (Act 39 of 1970), s. 92.
[37] The Patents Act, 1970 (Act 39 of 1970), s. 140.

(2)   Mandatory Disclosure: Require applicants and litigants in patent cases to disclose when an AI Design System has contributed to an invention or the challenged product, respectively. This would prevent evidentiary confusion and ensure that the AAILM is applied correctly.

(3)   IPO Oversight Cell: Set up an AI-Patent Oversight Cell at the Indian Patent Office comprising technical experts that would help advise courts, maintain the certification database, and help the examiners in dealing with complex AI-related applications.

MSME Policy Guidelines: Provide a national model guideline that guides MSMEs on how to document good-faith compliance and conduct basic IP checks, for example, using government tools such as Indian Patent Advanced Search System ('InPASS'). This will provide the much-needed benchmark for "reasonable conduct" in support of the innocent infringer defence.

5.3 Model Judicial Test

To operationalise the AAILM, courts must be guided to conduct a three-step test in line with MeitY's "graded responsibility" policy. Step 1 would include identifying Functional Control, i.e., who had the most control over the generation of the infringing feature: User or Developer? Then, Step 2 entails Proximity of Knowledge[38]- Who had actual or constructive knowledge of the possible patent overlap, and the last step includes determining Prevention capacity or least cost avoider[38], by whom could the infringement most easily have been prevented through reasonable technical or procedural precautions?

6. Graded Responsibility Globally

AAILM is a unique liability affixation model, but some countries globally have adopted similar graded responsibility models such as:

6.1 European Union

The EU AI act and revised Product Liability Directive provide for a similar graded responsibility like AAILM. Tier I responsibility is affixed to the Developers of AI, who have highest burden.[39]

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[38] *See MySpace, Inc. v. SuperCassettes Industries Ltd.*, (2017) 236 DLT 478 (DB) (establishing the standard for "actual knowledge" versus "general awareness" in the context of digital intermediaries in India).

[39] Guido Calabresi, *The Costs of Accidents: A Legal and Economic Analysis* 135 (Yale University Press, New Haven, 1970) (pioneering the "least cost avoider" principle, which posits that liability should be assigned to the party who can most cheaply avoid the accident/infringement).

The developers are expected to conduct ex ante or preventive measures such as risk management and data quality checks.

Tier II responsibility is fixed on the user of AI. They are instructed to follow the instructions responsibly; otherwise, the liability shifts on the deployer (user).

Doctrine of Rebuttable Presumption of Causability[40] introduced by EU presumes that when AI infringes a patent, developer is at fault, unless the developer satisfactorily prove that their black box was designed perfectly, shifting the burden back to tier II (deployer).

6.2 China

China's model is centred around liability fixation of service provider. Their "Interim Measures for the Management of Generative AI Services"[41] states that the entity providing services is primarily responsible for content and output. The developers can use Traceability Logs, which allows developers to restrict users from using AI labeled content, or else they will be liable.

7. The AAILM in Practice: Remedial Allocation Through Case Studies

This Part applies the AAILM to apportion remedial liability when AI-generated technical designs inadvertently infringe upon existing patents in the real world. The strict liability imposed under Section 48 remains undisturbed, but the AAILM pro rata apportions Section 108 remedies based on control, foreseeable capacity, and preventive capacity operationalising MeitY's principle of "Accountability" in a patent context.

7.1 Structure of AAILM for Remedial Allocation

The doctrinal finding of infringement continues to follow strict liability. However, remedial responsibility (financial compensation) is distributed across three tiers:

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[40] *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] OJ L 1689 (establishing a risk- based tiered approach that imposes heavy compliance and transparency duties on AI providers to prevent systemic failures).

[41] *Interim Measures for the Management of Generative Artificial Intelligence Services* (promulgated by the Cyberspace Administration of China, July 13, 2023, effective Aug. 15, 2023) (China) (mandating that AI service providers assume the responsibilities of a "producer" of content and implement technical measures to prevent the infringement of intellectual property rights).

(1) Tier 1 End-User (MSME): The statutory infringer, though protected by the innocent infringer defence for the pre-notice period, remains the statutory infringer. Exposure is limited to post-notice damages and mandatory injunctions.

(2) Tier 2 (AI Developer): Becomes the primary compensatory debtor where the infringement is the result of the developer's failure to implement ex ante safeguards (e.g., patent-aware filters or overlap warnings). This is systemic induced infringement, justifying shifting damages and accounts of profits to the developer.

(3) Tier 3 (Platform/Intermediary): Bears conditional liability where it plays an active role-curation, modification, or commercial promotion and ignores foreseeable patent risks. Liability is proportionate and arises only when the intermediary has meaningful control or commercial benefit.

• Case Study 1: AI-Generated EV Motor Assembly (MSME)

An MSME employs a generative-design tool to optimize an EV motor assembly. The AI returns with a winding configuration that happens to read on a patent claim. The MSME fabricates the part for months until notice is received. Under the prevailing law, the MSME is a solo infringer, subjected to injunctions despite its ignorance, and the innocent-infringer defense deprives the patentee of damages for the pre-notice period. The AI developer, whose model did not take any patent-aware precautions, stays beyond the reach of liability.

Under the AAILM, the MSME is still the direct infringer but is exempted from the burden of heavy damages. The compensatory liability would primarily lie with the AI developer, as its failure to implement reasonable patent-filtering in a high-risk sector forms a case of systemic induced infringement. This restitutes the patentee's right to full compensation and incentivizes developers to incorporate ex ante compliance mechanisms.

• Case Study 2: Platform Republishes AI-Designed Drone Components

A cloud platform curates and distributes AI-generated drone arm designs, some of which replicate the geometry of a patented load-bearing joint. The domain is dense with patenting, but the AI developer and the platform do not undertake checks for patent overlaps before commercial

dissemination. Under the current law, it is the innocent end-users that become the infringers, the patentee receives little compensation, while both the developer and platform totally escape liability.

The AAILM shifts this burden. A developer is principally compensatorily liable for publishing a model without domain-specific safety features, while the platform bears conditional joint liability as its active curation and commercialisation of high-risk designs gives rise to an enhanced duty of care. Damages are apportioned accordingly, better reflecting actual control, foreseeability, and commercial benefit.

8. Conclusion

Due to the inadequacy of Indian Patent laws in catering to AI generated infringement, the innocent MSME users are made liable for the infringement they neither intended nor forsee. This leads to a detrimental situation for all the stakeholders since the MSMEs face injunctions hurting their small businesses, patentees do not receive monetary relief due to innocent infringement doctrine and the developers of AI facilitating the entire process remain immune to all liability. Such an arrangement leads to undermining of main objectives of patent law ensuring compensation to the aggrieved and creating restrictions when it is necessary to do so.

The framework of AAILM presents a unique arrangement where strict liability is retained in favour of the patentee's exclusive rights, but financial burden is spread across the stakeholders with three parameters-control, foreseeability, and preventive capacity. The AAILM framework proposed for India aligns with the global benchmarks and rules, such as EU's risk-based approach and rebuttable presumption, and China's directive to service providers to function as gatekeepers against AI infringement. By adopting the graded framework, India can adhere to the global standards as well as provide for protection of the MSME ecosystem.

Drawing from exiting doctrines of innocent infringement and joint tortfeasor liability, among others, AAILM ensures that cost of systemic neglect would be internalized by developers and platforms while ensuring that MSMEs do not suffer disproportionately and patentees get complete remedial protection as per Section 108 of the Act. It is imperative to implement such a graded responsibility framework to drive innovation goals in harmony with equity, legal certainty, and the long-term economic growth of an increasingly AI- driven manufacturing ecosystem in India.