

# PATENTS AND ARTIFICIAL INTELLIGENCE: LEGAL AND ETHICAL ISSUES

Pranav Shankarrao Narwade

psnarwade04@gmail.com

Nutan College of Engineering and Research, Talegaon Dabhade, Pune-410507

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## 1 INTRODUCTION

The merge of Artificial Intelligence (AI) and Intellectual Property (IP) law adds it to one of the most complex challenges of the modern era. As AI systems evolve from just tools into autonomous creators, their change challenges the principles of patent law, particularly the definitions of **novelty**, **inventive step**, and the very concept of **inventorship** [1]. The purpose of this paper is to examine the ethical and legal issues raised by AI-generated inventions, with a particular emphasis on the requirements for patentability and the IP framework's need to change in order to keep up with technological developments.

Traditional patent laws are predicated on the concept of human agency—rewarding the "sweat of the brow" or the "flash of genius" of a natural person. However, the emergence of generative models challenges definitions of **novelty**, **inventive step**, and the very concept of **inventorship** [1]. This paper aims to analyze the legal and ethical friction points arising from AI-generated inventions, focusing on global judicial precedents, the specific constraints of the Indian legal framework, and the necessary evolution of IP policy to accommodate these technological advancements

## 2 MAIN BODY

### 2.1 The Challenge of Inventorship

The main legal challenge in the integration of Artificial Intelligence (AI) into patent law is the actual definition of an "**inventor**". The question of whether patents should always consider human inventors has been raised in recent international court cases.

#### 2.1.1 The DABUS Case Study: A Global Test

The most significant legal test for AI inventorship is the series of applications filed by Dr. Stephen Thaler for the *Device for the Autonomous Bootstrapping of Unified Sentience* (DABUS). Dr. Thaler listed DABUS as the inventor of a fractal container and a neural flame, arguing that the machine conceived the inventions without human intervention.

In the United States, the Court of Appeals for the Federal Circuit in *Thaler v. Vidal* definitively rejected this claim. The court performed a textual analysis of the US Patent Act, noting that the statute repeatedly uses terms like "individual" and personal pronouns such as "himself" or "herself" [3]. The court concluded that the plain meaning of "individual" is a natural human being, and statutes must be interpreted according to their ordinary meaning at the time of enactment. Consequently, an AI system, lacking legal personhood, cannot execute the required oaths or declarations to be an inventor [3].

Similarly, the UK Supreme Court in *Thaler v. Comptroller-General* upheld the rejection of the DABUS patents. The court's reasoning went beyond simple definitions. It addressed the "doctrine of accession"—the property law principle where the owner of a "fruit-bearing" asset (like a tree) owns the fruit (the apple). Dr. Thaler argued that as the owner of DABUS, he should own its inventions by accession. The court rejected this, ruling that an invention is an intangible concept, not a tangible fruit, and that patent rights are statutory creations that require a human inventor as the origin point [2].

#### 2.1.2 Judicial Interpretation of 'Natural Persons'

The question of whether an AI system can be given the title of an inventor has been definitively addressed in multiple jurisdictions through the test cases of the *Device for the Autonomous Bootstrapping of Unified Sentience* (DABUS). In *Thaler v. Vidal*, the US Court of Appeals for the Federal Circuit decided that the term "individual" in the Patent Act clearly refers to a human being [3]. The court noted that the statute uses personal pronouns such as "himself" or

”herself,” rather than ”itself,” clearly indicating legislative intent to exclude non-human entities [3].

Similarly, the UK Supreme Court in *Thaler v. Comptroller-General* held that under the **Patents Act 1977**, an inventor must be a ”natural person” [2]. The court further rejected the ”doctrine of accession”—the argument that the owner of a machine should automatically own the inventions it creates—ruling that inventions are not tangible property like fruit produced by a tree [2].

### 2.1.3 The Indian Legal Context

The legal situation in India is similar to these global incidents. Section 6 of *The Patents Act, 1970*, states that an application may be made by the ”**true and first inventor**” [1]. The Act does not specifically grant computational systems legal personhood, even though it defines a ”person” to include the Government [4]. Because rights are granted based on human creativity and intention, scholars contend that the Indian framework implicitly assumes a **human creator**. As a result, without substantial legislative reform, current Indian statutes are ill-suited to handle autonomous AI generation [4].

## 2.2 AI as a Tool vs. Autonomous Creator

Differentiating between AI as a tool and AI as an autonomous creator is a crucial nuance in this discussion.

### 2.2.1 Computational Problem Solving

According to technical analysis, calling AI ”**autonomous**” could be deceptive both legally and technically. Artificial neural networks and evolutionary algorithms, according to Kim (2020), are basically ”computational problem solving” [5]. The distinction between human and algorithmic creativity is frequently artificial since these systems depend on human-defined instructions and parameters to understand the relationships between inputs and outputs [5].

### 2.2.2 Implications for the ’Inventive Step’

If AI is viewed merely as a sophisticated tool, the ”inventive step” (non-obviousness) requirement becomes the primary hurdle. If an AI can solve a problem via ”brute force computation” based on human instructions, the resulting invention may be considered obvious to a person skilled in the art equipped with such tools. Therefore, attributing inventorship to the human

who designed the computational method or the training data remains the most logical application of current patent principles [5].

## 2.3 Ethical and Policy Implications

Beyond the statutory definitions, recognizing AI inventorship raises significant ethical and economic concerns that policymakers must weigh.

### 2.3.1 Accountability and Liability

A primary ethical concern is accountability. Patent rights come with responsibilities, such as the duty of disclosure. If an AI is the inventor, who is liable if the invention infringes on existing patents or causes harm? Granting inventorship to a machine that cannot be sued or held legally responsible creates a liability vacuum. Legal frameworks rely on the premise that a human or corporate entity ultimately bears responsibility for the IP portfolio.

### 2.3.2 Monopolization of Innovation

There is a significant risk that recognizing AI inventors could lead to the monopolization of innovation by large technology corporations. AI systems can generate thousands of potential inventions per second. If companies could patent every output of a generative model, they could create massive "patent thickets" that block competitors and stifle human innovation. This would undermine the patent system's primary goal: to incentivize human ingenuity for the public good.

## 2.4 Pathways for Reform

Given the limitations of existing statutes, India faces a choice between reforming existing laws or creating new laws. Hazarika and Saikia (2025) propose that India could amend the definitions of "**author**" and "**inventor**" to recognize human-AI collaborations, or alternatively, create a separate legal framework specifically for AI-generated works to ensure clear ownership and liability rules [4].

## 2.5 Way Forward: Recognizing Collaborative Inventorship

While the current judicial consensus correctly restricts inventorship to natural persons under existing statutes, the exponentially increasing influence of AI in R&D cannot be ignored. Strict adherence to conventional definitions may ultimately hinder innovation as AI develops from a passive tool into an active participant in the creative process. Thus, in accordance with the reforms proposed by Hazarika and Saikia (2025), the legislature ought to take into consideration recognizing a model of "**collaborative inventorship**." This would ensure that the patent system is still applicable in the era of algorithms by protecting the human intent and investment behind AI-generated works while acknowledging the machine's role.

## 3 CONCLUSION

A human inventor is required by current patent laws, according to the global consensus and the *Thaler* rulings. However, the Indian patent system needs to change as AI transforms from a passive tool into an active participant in the creative process. In order to ensure that the patent system continues to encourage investment in technology without legally anthropomorphizing machines, future policy should probably concentrate on granting rights to the human users or developers who support AI innovation.

## References

- [1] The Patents Act, 1970, No. 39, Acts of Parliament, 1970 (India).
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- [5] Kim, D. (2020). 'AI-Generated Inventions': Time to Get the Record Straight? *GRUR International*, 69(5), 443-456.