



## LEGAL AND ETHICAL DILEMMAS IN PROTECTING AI-GENERATED INTELLECTUAL PROPERTY

By A Prerna Mahendra

Research Scholar at Jai Narain Vyas University,  
Jodhpur

### Abstract

The fast pace of AI has altered the IPR environment greatly, producing the pieces of work and inventions that are very similar to human creativity and, at the same time, go against accepted legal and ethical standards. This paper is a critical evaluation of the issue of dilemmas with regards to AI in the domain of copyright, patent, trademark, and design rights. Whereas the existing IP regimes are based on human authorship and inventorship, independent autonomous AI systems can now generate creative works and inventions on their own, revealing holes in ownership, responsibility and protection. Historical court cases like DABUS point to the inconsistencies in laws around the world, the majority of jurisdictions rejecting IP protection over inventions created by AI, although some jurisdictions like South Africa are more open-minded. Copyright law is also less adaptable, frequently rejecting works that lack human creativity, and patents have issues with attaching incentives and misattribution, and problems with assigning inventorship and transparency in situations where an invention has not been humanly conceived. There are also problems with training data applied to the development of AI, which has raised questions regarding data rights, fair use, and ethical compensation. The article discusses new international strategies, including sui generis, hybrid models to balance innovation and accountability.

At an ethical level, it goes beyond the legal aspects of the issue, questioning how AI creativity affects human dignity, fair access, moral responsibility, and reward

allocation. The suggested measures involve making human contribution clear, creating AI-specific rights, making the sources of data transparent, and developing soft law and contractual approaches to responsible implementation. In the end, the article states that legal and ethical changes to ensure the alignment of incentives to innovate, the well-being of society, and the continuously changing role of AI.

### 1. Overview

The Artificial intelligence has changed several facets of the human life, such as innovation, creativity, and even the generation of intellectual property (IP). Now AI systems automatically produce inventions, works of art, literary pieces, designs, and other artifacts that had traditionally demanded human intelligence. Although such developments will bring efficiency, innovation, and novel creative opportunities, they also present difficult legal and ethical challenges on how such AI-generated outputs must be safeguarded according to the current IP frameworks. The recent growth of AI has eroded the historical distinction between the human creative and machine functional capabilities. In the present-day world, AI systems are able to generate the outputs that are similar to human authorship or invention-musical pieces and literary works, architectural designs, intricate computer codes, and pharmaceutical molecules. When such outputs have become economically and culturally valued, it points out two challenges. According to the law, the current IP laws are made for humans and it cannot easily encompass AI in the conventional doctrines of copyright, patent or other rights.<sup>1</sup> Morally, the identification or non-identification of rights in AI products would influence equity, innovation motivation, societal wellness, and knowledge accessibility. Designing AI creations to have exclusive rights can be a threat to centralize power in the hands of the corporations, and not providing protection can lead to a reduction in the incentives to invest in AI innovation. This paper discusses the legal

<sup>1</sup> Sayed Qudrat Hashimy & M. S. Benjamin, *The Convolution of Artificial Intelligence and Intellectual*

*Property Rights*, 6 *Int'l J.L. Mgmt. & Human.* 2891 (2023).



and ethical issues that question AI-generated intellectual property. It examines how copyright, patent, trademark and these regimes face the advent of machine-produced works, the problem of defining authorship and inventorship, and the lack of accountability in autonomous AI systems. Also, it covers the international attitudes, comparative strategies, and suggested changes, and considers normative issues regarding equity, civic interest, and the place of Artificial intelligence.<sup>2</sup>

## 2. The Legal Framework for AI generated Intellectual Property

IPR law has always been based on human authorship and inventorship. Copyright guards original authorship work whereas patent law is used to appreciate innovative inventions made by natural individuals. Like trademark, design rights and other IP regimes are based on human creativity, labour or initiative. Such legal regimes presuppose a human creator to whom rights, duties and incentives are assigned. These fundamental assumptions are, however, challenged by the fact that nowadays, AI systems can produce creative or inventive outputs. AI-generated intellectual property is the intellectual property created by autonomous AI systems, that is, without human conceptual input.<sup>3</sup> This phenomenon provokes serious legal issues: Who is considered an author or an inventor? Who is it to belong to, the AI itself, the programmer or the AI operator? The present IP solutions are not well-suited to resolve these problems since a human intervention is always being demanded. DABUS, the AI system, is used as an embodiment of this tension. When claims that DABUS was the discoverer of new discoveries were made in a variety of countries, such as the US, UK, EU, and Australia, they were denied by patent offices and courts, which claimed that innovators were

required to be natural persons. The most apparent differences in the international practice can be observed in South Africa that officially recognizes AI as an inventor.<sup>4</sup> In AI-assisted works, human authors make use of AI as a resource, making significant contributions, direction, or editing, and thus meeting legal requirements in authorship or inventorship.<sup>5</sup> Conversely, AI-generated works include little or no human intervention, frequently just in the form of prompts or general parameters. The existing legislations find it hard to embrace this second category and thus, valuable outputs are not secured or the ownership, commercialization, and liabilities are left in a legal gray area. Such a lack of alignment has practical implications: companies that invest much in generative AI are put at risk of having their work become fruitless, depriving them of the motivation to innovate.

### A) Copyright Law: The Human Authorship Barrier

The issue of copyright protection has always been dependent on the concept of human creativity. The legal term original works of authorship assumes a human as an author. This principle has been restated with force by courts and administrative authorities. In USA, the Copyright Office declined to accept the registration of AI-generated works due to absence of a human author. Likewise, in 2023 the Office refused to register segments of an AI-assisted graphic novel in which the creative effort was entirely machine-generated. The decisions produce what scholars describe as the no-protection problem. A pure AI-created work falls under the default, which may discourage companies willing to invest in a generative model. Conversely, legal fiction attribution, including the rule under the UK where the person making arrangements necessary is credited with authorship,

<sup>2</sup> Anthoula Papadopoulou, *Creativity in Crisis: Are the Creations of Artificial Intelligence Worth Protecting?* 12 *J. Intell. Prop. Info. Tech. & Elec. Com. L.* 408 (2021).

<sup>3</sup> R. A. Aswin Krishna, *Unraveling Intellectual Property: A Study on the Transformative Role of AI*

*and Digital Innovations*, 7 *Int'l J.L. Mgmt. & Human.* 2661 (2024).

<sup>4</sup> *In re Thaler (DABUS)*, 2022 WL 1473402 (Fed. Cir. 2022).

<sup>5</sup> *AI, Art and Copyright: Part II*, 29 *Art Antiquity & L.* 333 (2024).



invites the risk of misattribution and undermine the labour-reward idea on which copyright is based. At the other end is the threat of over-protection: in case huge volumes of AI-created text, images, or music were copyrighted, the free space may be clogged with monopolized content, silt human expression. There is another fault line of training data. Millions of works are fed to generative AI models, frequently copied scraperlessly. The creators believe that it is a copyright infringement and require recognition or compensation and the developers believe that it is a fair use or a transformative purpose.<sup>6</sup> Opaqueness of machine learning operations makes it difficult to trace particular infringements, placing the courts in unparalleled evidentiary and doctrinal difficulties.

#### B) Patent Law: Inventorship and Disclosure in Crisis

The patent law has equally hard questions. Laws around the world associate patent rights with a natural person, the one inventing the inventive idea. But autonomous systems such as the DABUS cannot be attributed to any human mind. Many countries have taken the stance that they will not accept AI as a human inventor but South Africa did grant it to AI. The omission of AI inventorship is a paradox. There is no protection of inventions which lack a human inventor, even though they may meet the requirements of novelty and inventive-step. The result is either a vacuum of public-domain, or strategic misrepresentation of human inventorship. Numerous companies can resort to trade secrets, thereby compromising the disclosure requirement of patent and the people are denied access to technical expertise.<sup>7</sup> Besides, in the event AI is able to scan through the previous art databases and create creative outputs that human beings are unable to, the doctrinal tests of inventiveness themselves might need to be re-examined.

<sup>6</sup> Brooke Sause, *The Melodic Maze of Generative AI: Navigating Copyright and Publicity Protections*, 4 *Fla. Ent. & Sports L. Rev.* 107 (Feb. 2025).

<sup>7</sup> Sadir Tanveer, Shan Ali & Abdul Azim, *From Code to Courtroom: Legal Challenges and Opportunities in*

#### C) Trademark and Design Law: Emerging Frictions

The trademark law is not as directly under attack because rights are usually assigned to commercial source identifiers as opposed to authorship. But AI is associated with practical complications. Logos, slogans and brand names can be created automatically by an algorithm, and the issue of originality and secondary meaning is obscured. When infringement occurs, it is essential to determine the human actor who bears the responsibility as the developer, operator or deploying company, because AI itself does not have legal personality. There is also tension in design law when there is industrial design that is autonomously created. The registration system can become overloaded, in case AI systems produce thousands of variations. Fundamentally more, again originality demands a human designer. Whether jurisdictions will change design protection to include machine creativity is a question to be answered, but the stakes are high due to the use of AI in fashion, product engineering, and architecture.

#### D) Data and Training Inputs: The Hidden IP Battleground

In addition to conventional regimes, the very way information is handled has now been a cause of controversy. Scraping of copyrighted content, images and code on a large scale to train AI models has resulted in legal action across the world. Artists claim that their art is used without their permission and without payment. Developers respond that training is transformative statistical analysis and not reproduction, therefore, it is not infringed. This will continue to rank among the most disputed IP spheres due to the unresolved nature of the data rights as well as the technical incomprehensibility of AI.<sup>8</sup>

*AI-Human Collaborations within the Metaverse*, 2 *Pakistan J.L. Analysis & Wisdom* 378 (Sept. 2023).

<sup>8</sup> *ChatGPT: A Case Study on Copyright Challenges for Generative Artificial Intelligence Systems*, 15 *Eur. J. Risk Reg.* 602 (2024).



E) Accountability, Liability, and the Public Interest

Accountability is a fundamental challenge in all the regimes. Other developers usually offer models as generic tools with no responsibility for infringement or harmful output. Generation may not be much controlled by the users. In the meantime, AI systems do not have legal personality.<sup>9</sup> This accountability gap means that victims of infringement or discrimination do not have any obvious solution. The interest of the populace is involved, as well as the personal gain. Declining to protect AI-created works broadens the commons, but could deter innovation, whereas providing protection has the potential to privatize enormous segments of culture and knowledge. In medicine, such as in the pharmaceutical sector, AI can be applied to expedite the process of drug discovery, but patents threaten to limit access to life-saving medicines.<sup>10</sup>

F) Personhood and the Future of IP

It has been suggested by some scholars to give AI legal personhood so it can own IP rights. This prospect however is controversial. AI is not conscious, has no moral responsibility, no duties and these are the main elements of legal personhood. Giving rights to machines will blur human-based rationale of IP law. The preference of most policymakers is therefore to adjust existing frameworks-vesting rights to developers, operators, or deploying institutions, and not to create machine rights. Nevertheless, the discrepancy between the assumptions in the laws and technological facts creates a zone of uncertainty. The development of the IP law will be forced to address the following questions whether by judicial innovation, legislative change or treaty making in

international forums as AI keeps redefining the nature of creativity and innovation.<sup>11</sup>

3. Global and Comparative Perspectives on AI-Generated Intellectual Property

A) International Perspectives

The policymakers have been struggling to come on a consensus about the convergence of AI and IPR. WIPO has also created various groups of experts to discuss these emerging issues and noted that recent IP frameworks are largely human-oriented. Though in a handful of jurisdictions such as South Africa there has been experimentation with a human author or inventor named as such by AI, the vast majority of countries have demanded the criteria of human authorship for IPR.<sup>12</sup> TRIPS has also not contributed much to the domain of AI and IP. It only has a general overview about IP protection.

B) Comparative Legal Approaches

The various legal traditions take a slightly different approach to AI-generated IP. In common law countries such as the US and UK, originality and innovative step rely on the human creativity/invention. One of the striking examples of this is DABUS case where AI was not given priority over human author. By contrast, civil law jurisdictions, like Germany and France, instantiate moral rights within copyright regimes, increasing further ethical issues about the appropriation of non-human creators. Japan has focussed on sui generis protection of AI works to maintain balance of innovation and human authorship. Comparative analysis indicates that the words of statutory language vary, but the underlying conflict, the tension between

<sup>9</sup> Cathina L. Gunn-Rosas, *Beyond the Binary: AI, Ethics, and Liability in the Legal Landscape*, 10 *Tex. A&M J. Prop. L.* 389 (Spring 2024).

<sup>10</sup> *Ibid.*

<sup>11</sup> Md. Jewel Ali, *AI and the Legal Frontier: Balancing Innovation and Challenges in the Age of Artificial*

*Intelligence*, 2 *LawFoyer Int'l J. Doctrinal Legal Rsch.* 503 (2024).

<sup>12</sup> Jo-Anne Yau, *Creation, Commerce, Conflict, & Conscience: AI's Disruption on Existing IP Frameworks in the United States and Canada*, 28 *UCLA J.L. & Tech.* 1 (Winter 2023).



innovation motivators and the humanistic ethos of IP, is universal.

#### C) Emerging Proposals and Hybrid Models

Researchers and policy makers have suggested hybrid or sui generis framework to resolve these issues where AI is trying to fit in IP regimes. These encompass architectures in which AI outputs are safeguarded by restricting rights of creators, executors or consumers, and where the contribution of the machine is instrumentally acknowledged as legal personhood is not conferred. Additional suggestions focus on licensing of training data to make sure that original creators are recognized and rewarded when AI use it to create new works. Other scholars support a regime of duty of attribution, in which products of AI-aided production are attributed in a corresponding manner, without necessarily giving the machine exclusive rights.<sup>13</sup> These models are meant to preserve the incentivization role of IP and to deal with the accountability and fairness gaps that AI poses.

#### D) Case Law Analogies: Non-Human Authorship

The debates about AI-generated IP in the legal arena may be compared to previous cases of non-human authorship. The *Naruto v. Slater* (a monkey that created a self-portrait) highlights the problem of copyrighting the work of a non-human being. The courts there ruled that the copyright was not granted, it was important that human authorship was met, but the social value of granting creative recognition and access was also taken into consideration. We can see analogous ideas arising in the realm of AI, and it is clear that despite the fact that technology can generate

works with characteristics of creativity, the law is still rooted in human responsibility and authorship.<sup>14</sup>

#### 4. Ethical Considerations in AI-Generated Intellectual Property

Ethical dilemmas that emerge as a result of AI-generated works are complicated because they touch upon such foundations as creativity, fairness, accountability, and societal wellbeing. AI-generated work, in contrast to traditional intellectual property (IP), makes us question established moral and social values, as AI-created works focus on human authorship and inventorship.

##### A) Creativity and Human Dignity

The recognition of AI as creator is one of the fundamental ethical dilemmas. The concept of creativity has long been considered as a human ability peculiar to people, being strongly associated with human dignity and self-expression. Allowing AI to have equal rights with human authors might reduce the importance of human work and devalue human innovation in the society. It also begs the question as to what happens to creative careers, in which human inventors or artists may be sidelined or even demoted as AI-generated material takes over.<sup>15</sup>

##### B) Accountability and Moral Responsibility

AI systems are independent and cannot be held accountable to the repercussions of their products. In cases where AI-generated materials violate already existing rights, create biased information, or harm, it is human agents, such as developers, operators, or end-users that need to be held to ethical

<sup>13</sup> Ngo Kim Hoang Nguyen & Doan Hong Quan, *Artificial Intelligence and Inventorship under the Patent Law Regime: Practical Development from Common Law Jurisdictions*, 2023 *Vietnamese J. Legal Sciences* 25 (June 2023).

<sup>14</sup> Amir H. Khoury, *Generative AI out of Thin Air!: On the Question of Property in Intellectual Property-Type Subject Matter That Is Generated by Autonomous*

*Intelligent Robots*, 24 *Wake Forest J. Bus. & Intell. Prop. L.* 1 (Fall 2023).

<sup>15</sup> Catherine O'Callaghan, *Can Output Produced Autonomously by AI Systems Enjoy Copyright Protection, and Should It? An Analysis of the Current Legal Position and the Search for the Way Forward*, 55 *Cornell Int'l L.J.* 305 (Fall 2022).



accountability. However, it is not easy to implement strict accountability because the degree of human intervention can be different. Moreover, AI has no moral agency, so the traditional concept of moral rights, reputation and attribution, can not be directly applied to machines.<sup>16</sup> Attribution or legal fiction of authorship may therefore pose ethical dilemmas and may falsely inform people about the provenance of a work.

#### C) Fairness and Equitable Access

There is also the ethical consideration in terms of distribution of the benefits of AI innovation. When IP rights over AI-generated works are concentrated into a small number of corporations or developers, it would lead to the monopolization of creative and technological output, lessening the chances of more general innovation, and restricting access by the populace. This is especially important in socially important areas like medicine, environmental technology, and education where fair access to knowledge and innovation has a direct impact on society.

#### D) Training Data and Ethical Use

Another ethical problem lies in the fact that the inputs that are used to train AI models are text, images, music, and code, which is a further layer of ethical complexity. Any unauthorized high-volume scraping of copyright content without permission or payment brings up issues of equity, exploitation and unjust enrichment. This is regularly defended by developers as transformative use, although ethical issues remain regarding the equilibrium between encouraging innovation and not infringing the rights and work of original creators. On the same note, societal interests of access and advancement might be in conflict with

the proprietary rights to datasets, which provides a sensitive ethical dilemma between incentives of innovation and the common good.<sup>17</sup>

#### E) Transparency and Explainability

Ethical theories are becoming more and more urgent about the necessity of transparency in the works produced with the help of AI. Attribution, improved accountability and increased trust can be achieved through explainable AI (XAI) systems, which enable humans to comprehend the decision-making and creative process of AI.<sup>18</sup> Not only does transparency in human participation and use of data enhance compliance with ethical standards, it also promotes responsible use and implementation of IP protection.

#### F) The Incentive Dilemma

Another ethical dilemma is the question of who is to enjoy the results of AI. In case the rewards are paid to the AI developers who put money and skills into it, to the user who guided or optimized the AI, or to the output itself to stay in the commons as a common good? Every decision is associated with trade-offs in terms of ethics. Rewarding developers may consolidate power and wealth, rewarding users may be gratuitous, and putting outputs in the open may undermine incentives to invest more in technology. To guarantee fairness and favorable social welfare, ethical policy has to strike a balance in these conflicting interests.

### 5. Legal Solutions and Policy Reforms

The ethical and legal issues of AI-created intellectual property require a careful reform which would balance innovation, justice and societal interests. Although the current IP frameworks rely mostly on humanistic

<sup>16</sup> Dennis Crouch, *Using Intellectual Property to Regulate Artificial Intelligence*, 89 *Mo. L. Rev.* 781 (Summer 2024).

<sup>17</sup> Jonathan D. Bick, *Improving Solutions to AI-Related Difficulties*, 50 *Rutgers Computer & Tech. L.J.* 159 (2024).

<sup>18</sup> Keri Grieman & Joseph Early, "A Risk-Based Approach to AI Regulation: System Categorisation and Explainable AI Practices", (2023) 20 *SCRIPTED* 56.



models, a number of solutions have been suggested to fill the existing lacunae.

#### A) Clarifying Human Contribution

The most popular solution is to refine authorship and inventorship doctrines to explain the human input in AI output. As an illustration, the protection of works or inventions might be provided in the case when human beings make a considerable creative/inventive contribution, despite the large role played by AI. In this way, adopted by the USPTO in 2024, it is possible to make sure that human responsibility is kept at the center and encourage people to work with the AI systems in a productive way.<sup>19</sup>

#### B) Sui Generis Rights for AI Outputs

The other avenue is through the establishment of new AI-specific protection regimes. Sui generis rights might give short-lived exclusive rights to the developers, operators or users of AI systems, and recognize their investment without creating long-term monopoly over the outputs. This might also be extended to other rights like labeling to provide transparency and ethical attribution so that AI generated works are not confused with traditional human-generated IP.

#### C) Data Transparency and Licensing

Models of AI are trained using very large volumes of data, which raises the issue of copyright infringement and fairness. Legal changes might include the disclosure of data sources of training, licenses or collective compensation plans, and original creators must be identified and compensated. Open systems would reduce not only ethical issues, but also bring more clarity to accountability in the possible cases of infringement.<sup>20</sup>

#### D) Soft Law and Ethical Guidelines

Industry codes and ethical principles can be very important even prior to the development of official laws. *Such frameworks promote the responsible AI usage, adequate attribution of contributions, and equitable licensing.* Although soft law is not mandatory, measures establish a set of standards of conduct, assist in avoiding exploitation and can serve as a reference in future statutory reform.

#### E) Judicial Adaptation and Contractual Ordering

Courts may also play their part by giving existing doctrines the flexibility of interpretation, especially in human supervision and participation. Considerable human control, editing or curating of AI output might be covered by the existing IP regimes. Simultaneously, ownership, attribution and rights of use can be defined in a contractual agreement between the developers, users and other stakeholders to offer interim clarifications where statutory guidance lacks.

### 6. Conclusion

The intellectual property created by AI is at the crossroads of the technological innovation, conventional legal ideas, and the changing moral standards. Non-human creators challenge the existing IP frameworks, and leave a loophole in protection, accountability and ownership. Meanwhile, the ethical issues of fairness, transparency, and equitable access should be taken into consideration.

To proceed, the multi-layered solutions are needed: the legislative innovation, the judicial adaptation, the clarity of contracts, the ethical principles, and the visibility of the AI actions and use of the data. Such actions must not be intended to provide AI systems

<sup>19</sup> Hadar Y. Jabotinsky & Michal Lavi, *Can ChatGPT and the like Be Your Co-Authors?*, 42 *Cardozo Arts & Ent. L.J.* 347 (2024).

<sup>20</sup> Orly Lobel, *The AI Regulatory Pyramid: A Taxonomy & Analysis of the Emerging Toolbox in the Global Race for the Regulation and Governance of Artificial Intelligence*, 57 *Loy. L.A. L. Rev.* 859 (2025).



---

with rights of their own but to safeguard rights of human authors under IP regime.

In the long run, the bigger objective is to help grow the original aim of IPR which is to protect innovation, creativity and societal development. Creating legal and ethical structures that tackle the unique aspects of AI, policymakers can create a dynamic ecosystem that encourages human resourcefulness, promotes responsible AI implementation, and protects the interest of the population in the era of autonomous creativity.

\*\*\*\*\*

