

## AI and Authorship - Redefining Copyright in the Digital Age

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### ABSTRACT

The advent of artificial intelligence (AI) has ushered in a new era of content creation, challenging the traditional boundaries of authorship and copyright law. In India, as in many parts of the world, the legal framework governing copyright is predicated on human authorship, leaving a significant gap in the regulation of AI-generated works. This paper delves into the complexities of integrating AI into the existing copyright regime in India, examining the nuances of authorship, originality, and ownership in the context of digital innovation. Through a comparative analysis with international jurisdictions and the exploration of the Indian Copyright Act, this study highlights the inadequacies of current laws to address novel issues posed by AI in content creation. It discusses challenges of recognizing AI-generated works within traditional definitions of authorship and originality, alongside the economic and ethical implications for human creators and the creative industry at large. The article proposes a redefinition of authorship and suggests amendments to the copyright law that acknowledge the unique nature of AI-generated content, advocating for a legal framework that balances the interests of creators, users, and the public

**Keywords:** AI, Copyright Act, Authorship, IPR Laws, Technological Advancements

**How to Cite:** Dr. Aakriti Shukla, Dr. Dhananjay Kumar Mishra, Prachi Mishra, Dr. Sunita Arya, Nandani Rathore, Shantanu Shukla , (2025) AI and Authorship - Redefining Copyright in the Digital Age, *Journal of Carcinogenesis*, Vol.24, No.3, 130-134.

### 1. INTRODUCTION

In the rapidly evolving landscape of digital technology, the emergence of AI as a prolific entity in the realm of creation marks a significant shift from its erstwhile role as merely a facilitator to a potent source of original content spanning diverse fields such as literature, music, and the visual arts. The phenomenon of AI-generated content is a testament to the advanced capabilities of complex algorithms and sophisticated machine learning models, which process and analyse extensive datasets to yield creations that not only mirror but occasionally outstrip human creativity in terms of innovation and

complexity. This expansive range of AI-produced works includes, but is not limited to, novels and poetry penned by AI, as well as intricate visual artworks and musical compositions that pose a challenge to our traditional notions of creativity and authorship.

The process underpinning the creation of AI-generated works is both compelling and complex. This journey commences with a training phase during which AI models are inundated with large volumes of data. This data could encompass thousands of literary works, musical compositions, or visual images. Utilizing advanced machine learning techniques, these models meticulously analyse and discern patterns, styles, and structural nuances within the data, thereby learning to produce new content that mirrors the characteristics of the learned inputs. This algorithm-driven process ignites profound deliberations regarding the essence of originality. A pivotal question arises: can a creation be deemed original if it is born from the analysis and recombination of existing works? This query is central to ongoing debates around copyright, urging a re-evaluation of our conventional definitions of creativity and innovation.<sup>1</sup>

Moreover, the issue of originality in AI-generated works is a subject of considerable debate. Traditionally, the concept of originality, especially in the context of copyright law, is predicated on the idea of human authorship and the unique expression of ideas. However, AI challenges this paradigm by producing works devoid of direct human intervention in the creative process. This development not only obscures the distinction between human & machine creativity but also necessitates a critical reassessment of what constitutes an original work within the prevailing legal frameworks. As we navigate this new terrain, it becomes crucial to delve into a deeper understanding of the mechanisms fuelling AI-driven creation and the ramifications for copyright law. This exploration transcends academic curiosity; it is an essential endeavour towards aligning our legal systems with the technological advancements of our time. This alignment is crucial for safeguarding the rights of human creators while also embracing the innovative potential that AI introduces to the creative domain.<sup>2</sup>

## 2. THE INDIAN COPYRIGHT ACT AND AUTHORSHIP

The Copyright Act of India, enacted in 1957 and subsequently amended, is pivotal in safeguarding the rights of creators across various domains, including literature, drama, music, art, sound recordings, and films. At the heart of this legislation is the principle of authorship, which serves as the foundation for determining copyright eligibility. According to this principle, for work to qualify for copyright protection, it must be original, meaning it must be created by a human being and contain a certain level of creativity. This requirement underscores the traditional view that a tangible connection between the creator and the creation is essential for copyright claims.

The essence of copyright law has historically revolved around the recognition and protection of human creativity, emphasizing the need for a work to have originated from an individual or a collective of individuals engaging in a creative process. This perspective has been adequate and effective for decades, ensuring that creators receive recognition and remuneration for their work. However, the advent and evolution of AI as a tool in creative endeavours have introduced significant challenges to these established norms.

As AI technology has advanced, its role in creative processes has evolved from being a mere instrument that assists human creators to that of an autonomous entity capable of producing works independently. This shift raises profound questions about the nature of originality and authorship. Traditional copyright laws are predicated on the assumption that creative works are the product of human intellect and effort. Consequently, these laws implicitly require human involvement for work to be eligible for copyright protection.

Emergence of AI-generated content, which lacks direct human authorship in the traditional sense, poses a dilemma for the current legal framework. Such works, created autonomously by AI without explicit human creative input, challenge the conventional understanding of authorship. The legislative gap becomes apparent when AI-generated works, which may exhibit creativity and originality, do not fit neatly into the existing definitions and requirements for copyright protection. This discrepancy highlights a critical area of concern: the law's current structure is ill-equipped to address the nuances of AI-generated creations, leaving them unprotected and raising questions about the rights, ownership, and control of these works.<sup>3</sup>

In response to these challenges, there is a growing consensus among scholars, policymakers, and the creative community

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<sup>1</sup> Morriss W, "Who Owns AI Created Content? The Surprising Answer and What to Do about It" (*Reuters*, August 23, 2023) <<https://www.reuters.com/legal/legalindustry/who-owns-ai-created-content-surprising-answer-what-do-about-it-2023-12-14/>> accessed March 1, 2024.

<sup>2</sup> "Navigating Originality in AI-Generated Art..." (*IIPRD*, January 4, 2024) <<https://www.iiprd.com/dalle-and-the-copyright-crossroads-navigating-originality-in-ai-generated-art/>> accessed March 1, 2024.

<sup>3</sup> "Artificial Intelligence and Copyright" (*WIPO*, October 2017) <[https://www.wipo.int/wipo\\_magazine/en/2017/05/article\\_0003.html](https://www.wipo.int/wipo_magazine/en/2017/05/article_0003.html)> accessed March 1, 2024.

that copyright law must evolve to accommodate the realities of AI-driven creativity. This evolution would involve rethinking concepts of authorship & originality to consider contributions of AI in the creative process. Adapting the legal framework to acknowledge & protect AI-generated works, while ensuring fair compensation and recognition for human creators, is crucial in navigating the complexities introduced by the integration of AI in creative domains.

The exploration of intellectual property law in India, particularly in the context of AI and copyright, offers a fascinating insight into the judiciary's gradual adaptation to the digital era's challenges. Although explicit legal precedents directly addressing the notion of AI as an author are yet to be established, a nuanced understanding can be derived from the judiciary's approach to cases where technology plays a crucial role in the creation process. This analysis reveals an underpinning principle that the acknowledgment of copyright necessitates a discernible level of human creativity and intellectual input.

A pivotal case that sheds light on the Supreme Court of India's perspective on copyright eligibility is *Eastern Book Company & Ors. v. D.B. Modak & Anr.*<sup>4</sup> In which court ventured beyond specificities of AI to articulate a broader principle concerning the role of human endeavour in the creation of copyrightable works. The judgment reinforced the "sweat of the brow" doctrine, asserting that copyright protection is granted not for the mere act of labour but for the creative judgment and intellectual effort invested by humans. This principle suggests that for a work to be copyrightable, it must transcend the realms of automated production, highlighting the indispensable value of human creativity.

Furthermore, the Delhi High Court's observations in *University of Oxford & Ors. v. Rameshwari Photocopy Services & Anr.* Offer additional insights into the judiciary's stance on the interplay between human creators and technology.<sup>5</sup> The court acknowledged that while computers facilitate the assembly of compilations, the underlying selection and arrangement reflect human judgment and choice. This acknowledgment of the human element in technologically assisted

creations suggests a judicial inclination to protect such works under copyright law, emphasizing the collaborative synergy between human intellect and technological tools.

Similarly, the Delhi High Court's engagement with copyright in the digital age in *Myspace Inc. v. Super Cassettes Industries Ltd.* reflects a nuanced understanding of technology's role in content creation and distribution, setting a precedent for adaptive legal reasoning in the era of AI.<sup>6</sup>

These judicial precedents, albeit not directly addressing AI-generated content, underscore a significant legal principle: the attribution of authorship and subsequent copyright protection are fundamentally tied to human creativity and intellectual contribution. This stance places AI-generated works in a precarious position within the existing legal framework of the Copyright Act, which currently does not explicitly accommodate the autonomous creative capabilities of AI.

The evolving capabilities of AI in the creative domain present a compelling argument for the re-evaluation of copyright law in India. The traditional definition of authorship, deeply rooted in humanistic values, faces a challenge in recognizing the autonomous creative processes facilitated by AI. This discrepancy between the existing legal framework and the advancements in AI technology calls for a critical examination of whether legislative reforms are necessary to reconcile these differences. Such an examination is not only of academic interest but also has profound implications for legal protection of AI-generated works & the delineation of rights and liabilities in an increasingly digital world.

### 3. INTERNATIONAL PERSPECTIVES ON AI AND COPYRIGHT

The global landscape of AI is undergoing rapid transformation, presenting unique challenges and opportunities for the international legal community, especially in the realm of copyright law. As AI technologies become increasingly capable of generating works that resemble those created by humans, legal systems around the world are faced with the task of reconciling these advancements with existing copyright frameworks. This process involves a careful consideration of how AI-generated works fit within the constructs of authorship, originality, and creativity, which are foundational to copyright law. Countries such as the EU, the US, and Japan have been at the forefront of this legal exploration, each adopting distinct approaches that reflect their individual legal philosophies and cultural values.

The EU has positioned itself as a leader in addressing the intersections between AI and copyright law. The EU's approach, as encapsulated in the EU Copyright Directive, provides a broad legislative framework that, while not specifically designed for AI-generated works, lays the groundwork for member states to interpret and potentially adapt copyright laws to the realities of AI-driven creativity. The central tenet of the EU's copyright system is the concept of originality, which requires that a work be the author's "own intellectual creation." This principle, while clear in the context of human authors, becomes more complex when applied to AI-generated content. The Directive's silence on this matter leaves a significant degree of interpretative flexibility, urging a need for legislative updates or judicial clarification to specifically address the status &

<sup>4</sup> 2008 (1) SCC 1.

<sup>5</sup> 2016 SCC OnLine Del 5128.

<sup>6</sup> 2017 (69) PTC1 (Del).

copyrightability of AI-generated works.<sup>7</sup>

In contrast, the US has adopted a more definitive stance through the practices of its Copyright Office, explicitly stating that AI-generated works, in the absence of human intervention, do not qualify for copyright protection. This position is rooted in the requirement that work must be authored by a human to be eligible for copyright. The refusal to register the AI-created artwork “A Recent Entrance to Paradise” exemplifies this policy, highlighting the US’s commitment to human authorship as an indispensable element of copyright eligibility. This approach underscores a clear demarcation between human and AI contributions to creative works, reflecting a broader philosophical stance on the nature of creativity and authorship.<sup>8</sup>

Japan offers a third perspective, one that acknowledges the evolving role of AI in the creative process while maintaining the traditional concept of human authorship. The Japanese Copyright Law incorporates a forward-thinking view by recognizing the contributions of AI to the creation of works, without attributing authorship to AI itself. Instead, copyright protection is afforded to human creators who employ AI as a tool in their creative endeavours. This approach effectively bridges the gap between technological innovation & copyright law, recognizing the symbiotic relationship between human creativity and AI assistance. It encapsulates a pragmatic acknowledgment of AI’s role in modern content creation, while firmly anchoring copyright in the human element of the creative process.<sup>9</sup>

As India navigates its own path toward a comprehensive and future-ready copyright framework, these international examples offer valuable insights. The diversity of approaches underscores the complexity of integrating AI into traditional copyright systems and highlights the importance of balancing innovation with the protection of human creativity.

#### 4. CHALLENGES AND IMPLICATIONS FOR COPYRIGHT IN THE DIGITAL AGE

The integration of AI into the realm of content creation presents a complex tapestry of challenges and considerations for copyright law, a domain traditionally predicated on human ingenuity and creativity. The advent of AI-generated works necessitates a thorough re-examination of copyright’s foundational principles, particularly as we navigate the nuances of ownership, originality, and creativity in the context of digital innovation.

One of the foremost issues in this intersection is the question of ownership for AI-generated works. Traditionally, identification of authorship & subsequent ownership rights in the realm of creative works is straightforward, predominantly because these aspects are intrinsically tied to human creators. However, the emergence of AI as a creator introduces a blur in these lines of demarcation. The central quandary revolves around the determination of copyright ownership: Should it reside with the AI developer, the end-user who provided the initial input, or an entity entirely separate? This question becomes even more perplexing considering the AI’s lack of legal personality, which traditionally precludes it from holding property rights, including copyright.

Complicating matters further is the issue of originality in AI-generated content. Copyright laws across jurisdictions hinge on the concept of originality, which is often intertwined with human creativity and the intellectual effort exerted in the creation process. AI, by its nature, functions through algorithms processing data inputs provided by humans. This mechanistic approach to content creation casts a shadow over the traditional understanding of creativity, prompting a re-evaluation of what constitutes originality in the output produced by AI.

The economic ramifications of AI in the creative landscape are significant and multifaceted. AI technology heralds new possibilities for content creation, potentially enhancing efficiency and reducing production costs. However, it also poses a competitive threat to human creators, potentially undermining their economic viability and the value traditionally ascribed to human-driven creativity. This shift necessitates a refined understanding of how copyright law can protect human creators in the evolving digital landscape, balancing the need for innovation with the imperative to safeguard creators’ economic interests.<sup>10</sup>

Beyond the legal and economic dimensions, ethical considerations loom large in the discourse on AI-generated works. The advent of technologies such as deepfakes and other forms of manipulative content raises pressing concerns about accountability, transparency, and the potential for misuse. These issues underscore the importance of moral rights and the integrity of creative expressions, challenging the legal framework to strike a balance between fostering technological

<sup>7</sup> Hugenholtz PB and Quintais JP, “Copyright and Artificial Creation: Does EU Copyright Law Protect AI-Assisted Output?” (2021) 52 IIC - International Review of Intellectual Property and Competition Law 1190 <<http://dx.doi.org/10.1007/s40319-021-01115-0>>.

<sup>8</sup> “The Debate on AI-Created Art and Copyright Protection” (*Bird & Bird*, September 1, 2023) <<https://www.twobirds.com/en/insights/2023/global/the-debate-on-ai-created-art-and-copyright-protection>> accessed March 2, 2024.

<sup>9</sup> Deck A, “Japan’s New AI Rules Favor Copycats over Artists, Experts Say” (*Rest of World*, June 28, 2023) <<https://restofworld.org/2023/japans-new-ai-rules-favor-copcats-over-artists/>> accessed March 2, 2024.

<sup>10</sup> “Art-Istic or Art-Ificial? Ownership and Copyright Concerns in AI-Generated Artwork” (*Center for Art Law*, September 8, 2023) <<https://itsartlaw.org/2022/11/21/artistic-or-artificial-ai/>> accessed March 2, 2024.

innovation and preventing harm.

Addressing the multifaceted challenges posed by AI's role in content creation requires a holistic and adaptive approach. This entails crafting legal frameworks that are both forward-looking and flexible, capable of accommodating the dynamic nature of AI technology while ensuring the protection and promotion of human creators' rights and interests. As society continues to delve deeper into the digital age, the imperative to redefine copyright law in light of AI's growing influence becomes not merely a legal task but a societal obligation.<sup>11</sup> It demands deliberate, collaborative efforts among a diverse array of creators, technologists, and legal professionals to forge a path that harmonizes the imperatives of innovation and protection in the ever-evolving landscape of digital creativity.

## 5. CONCLUSION

As we stand on the brink of a new epoch, where the boundaries between human ingenuity and artificial intelligence blur, the imperative to recalibrate our legal and ethical frameworks grows ever more pressing. The advent of AI-generated content, spanning from literary works to intricate art pieces, challenges the very edifice upon which copyright laws have been constructed. Traditionally, these laws were designed to protect the creative expressions of human intellect, fostering an environment where innovation could flourish under the safeguard of legal rights. However, the digital age, heralded by the rise of artificial intelligence, compels us to reconsider what constitutes authorship and originality in a landscape increasingly dominated by non-human creators.

The issue at hand transcends mere academic debate; it strikes at the core of economic realities, ethical considerations, and the future trajectory of creative industries. As AI continues to evolve, producing works that rival and sometimes surpass human creativity, the question of ownership and copyright becomes not just a matter of legal technicality but of fundamental fairness and economic viability. How do we allocate rights in a way that encourages innovation while ensuring that creators, whether human or not, are duly recognized and rewarded for their contributions?

Moreover, the ethical dimensions of AI authorship demand rigorous scrutiny. In a world where AI can generate content that influences opinions, shapes cultural narratives, and even affects political landscapes, accountability and transparency become paramount. The potential for misuse and manipulation through AI-generated content underscores the need for a legal framework that not only addresses copyright but also considers the broader implications of AI's role in our society.

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<sup>11</sup> *Ibid.*