

REDEFINING CREATIVITY: BALANCING INNOVATION AND PROTECTION IN AI-DRIVEN COPYRIGHT LAW

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Abstract: The transformative power of Artificial Intelligence (AI) has ushered in a new era of creativity, enabling machines to compose music, craft artworks, and pen literary pieces with an unprecedented degree of sophistication. However, this technological marvel challenges the very foundations of copyright law, which traditionally celebrates human ingenuity as the bedrock of authorship. Questions surrounding originality, authorship, and ownership of AI-generated works demand urgent attention as AI blurs the boundaries between human and machine creativity. This paper delves into the evolving dynamics of AI and copyright law, with a special focus on India's Copyright Act, 1957², which remains silent on the treatment of AI-generated works. Through a comparative lens, it explores global approaches, from the human-centric frameworks of the United States (U.S.) to the pragmatic provisions for computer-generated works in the United Kingdom (U.K.) and the progressive policies in China. The research proposes targeted legislative reforms for India to bridge the existing legal void, advocating for clear authorship rules, ownership provisions, and liability frameworks. It also underscores the need for judicial guidelines and international treaties to harmonize global standards in addressing the transnational complexities of AI technologies. By fostering innovation while safeguarding intellectual property rights, this study envisions a copyright regime that adapts to the transformative potential of AI. It calls for a balanced approach to ensure that the legal system evolves alongside technology, empowering both human creators and AI-driven ingenuity.

Keywords: Artificial Intelligence, authorship, copyright law, intellectual property, legislative reform, originality.

INTRODUCTION

“The greatest challenge of the 21st century will be to ensure that AI advances in a manner that enhances human life, while preserving values like creativity and justice.”

— Fei-Fei Li, American computer scientist
The rapid advancement of Artificial Intelligence (AI) has profoundly impacted numerous facets of human life, from automating mundane tasks to driving creative innovations. In the realm of intellectual property, AI's capabilities have introduced novel opportunities and challenges, especially in the context of copyright law. Traditional copyright frameworks, which were designed to address works created by human authors, are now being tested against a backdrop of AI-generated content, raising questions about originality, authorship, and ownership. AI systems, such as OpenAI's DALL-E and ChatGPT, demonstrate remarkable capabilities in generating original content, ranging from visual art to written text. However, these advancements blur the lines between human and machine creativity, necessitating a re-evaluation of established copyright principles.

For instance, how does the law address a scenario where an AI system produces a painting or composes a symphony? Can an AI system itself be considered an author, or does this role revert to the human programmer or operator? These questions underscore the complexity of integrating AI into existing copyright frameworks.

While some jurisdictions, such as the United States (U.S.), have upheld the necessity of human authorship for copyright protection, others, like the United Kingdom (U.K.), have introduced nuanced provisions for computer-generated works. The Copyright Act of 1957¹ (Copyright Act), however, remains silent on the subject of AI-generated content, creating a legal vacuum that needs urgent attention. In the absence of clear legislative or judicial guidance, stakeholders in AI development and usage face significant uncertainty regarding the protection and exploitation of AI-generated works.

This paper seeks to address these challenges by exploring the interplay between AI and copyright law, focusing on the gaps in existing legal frameworks and the need for reform. It

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² The Copyright Act, 1957 (Act No. 14 of 1957).

¹ *ibid.*

examines how international jurisdictions are grappling with these issues and considers how India can learn from global experiences to create a balanced and forward-looking legal regime. By fostering innovation while ensuring robust protection for intellectual property rights, this research aims to propose actionable solutions that harmonize the evolving dynamics of technology and law.

EVOLUTION OF COPYRIGHT LAW

A. Historical Perspective

Copyright law has a rich history rooted in the desire to reward creativity and intellectual effort. Its early origins are tied to the protection of literary works during the age of the printing press, but its principles have since expanded to encompass diverse forms of expression. The Statute of Anne (1710)², enacted in U.K., is a cornerstone in the history of copyright law. It marked the first attempt to grant authors exclusive rights over their creations while balancing the public's access to knowledge.³ Under the Statute, authors were granted 14 years of exclusive rights to their works, with the possibility of renewal. This framework underscored the recognition of intellectual labour as property deserving legal protection, setting a precedent for copyright systems worldwide.⁴ Over time, this foundational model evolved to include protections for derivative works, performers' rights, and even moral rights, concepts central to modern copyright regimes.⁵

The Berne Convention for the Protection of Literary and Artistic Works⁶ (The Berne Convention) was a significant milestone in establishing international norms for copyright. Its principles, such as the automatic protection of works and the abolition of formalities for recognition, continue to influence national laws globally. For example, countries such as India, the United States, and members of the European Union (E.U.) incorporate these standards into their copyright frameworks,

² Statute of Anne 1710, 8 Ann c 19.

³ *ibid.*

⁴ William F Patry, *Patry on Copyright* (7th edn, Thomson Reuters 2021) 17.

⁵ Berne Convention for the Protection of Literary and Artistic Works 1886, 828 UNTS 221, Art 6.

⁶ *ibid.*

⁷ European Union, 'Directive 2019/790 on Copyright in the Digital Single Market' [2019] OJ L 130/92.

⁸ WIPO, 'The Berne Convention for the Protection of Literary and Artistic Works: A Commentary' (WIPO 2015) 12-15.

ensuring that creators' rights are respected across borders.⁷

1. Expansion Through Technological Innovation

As technology advanced, copyright law adapted to protect new mediums of creativity. In the 19th century, the invention of photography brought visual works into the realm of copyright. The 20th century saw the inclusion of recorded sound, motion pictures, and broadcast works, spurred by the rapid development of audio-visual technologies.⁸

The digital revolution of the late 20th century necessitated further adaptations. Software, databases, and digital content became significant categories of copyrighted works, prompting jurisdictions to enact laws specifically addressing these areas.⁹ The World Intellectual Property Organization (WIPO) **Copyright Treaty (1996)**¹⁰ introduced provisions to protect computer programs and compilations of data while addressing the unique challenges posed by the internet and digital transmission.¹¹

2. Case Studies in Adaptation

Several landmark cases illustrate the evolving and adaptive nature of copyright law, showcasing how judicial interpretations have shaped its foundational principles over time:

Donaldson v. Beckett (1774, U.K.)¹²: This historic case established that copyright is not an inherent, perpetual natural right but rather a statutory one granted by law for a limited duration.¹³ By confirming that protections under copyright law are finite, the case laid the groundwork for balancing the rights of creators with the broader public interest. This decision continues to influence copyright frameworks worldwide by emphasizing the importance of a time-limited monopoly on intellectual property. *Feist Publications, Inc. v. Rural Telephone Service Co.* (1991, US)¹⁴: In this pivotal decision, the United States Supreme Court clarified that originality is a fundamental requirement for copyright protection.¹⁵ The Court ruled that merely compiling factual information without any creative input does not

⁹ European Union, 'Directive 2001/29/EC on the Harmonization of Certain Aspects of Copyright and Related Rights in the Information Society' (2001).

¹⁰ WIPO Copyright Treaty (1996).

¹¹ *ibid.*, Art 4.

¹² (1774) 1 Bro CC 318 (HL).

¹³ *ibid.*

¹⁴ 499 US 340 (1991).

¹⁵ *ibid.*

qualify for copyright. Instead, a work must exhibit a modicum of creativity and independent effort. This principle of originality is now being tested in the context of AI-generated works, which rely heavily on algorithms and preexisting data to produce outputs that may or may not meet the threshold of human creativity.

Eastern Book Company v. D.B. Modak (2008, India)¹⁶: In a landmark ruling, the Supreme Court of India raised the bar for originality, holding that for a work to be eligible for copyright, it must demonstrate both creativity and substantial effort.¹⁷ The Court rejected the idea of "sweat of the brow" as sufficient for copyright protection, focusing instead on intellectual contribution. This decision has significant implications for works created through automated processes, including those generated by AI, where the line between human and machine creativity becomes increasingly blurred.

These cases collectively underscore how courts across jurisdictions have grappled with defining originality, creativity, and the scope of copyright protections. As technology continues to advance, these principles will undoubtedly be tested further, particularly in the era of AI and automated content creation.

B. Modern Challenges in the AI Era

The rise of AI has introduced unprecedented complexities into copyright law. AI systems such as OpenAI's DALL-E, DeepMind's AlphaFold, and Google's Bard demonstrate the capability to produce works ranging from art and music to scientific discoveries and legal briefs. These developments challenge traditional assumptions about originality, authorship, and ownership in several ways:

1. Originality

Originality has historically been a cornerstone of copyright law. However, AI-generated works often derive their outputs from large datasets, raising concerns about whether these creations can be truly original. For example, AI-generated art might incorporate styles or elements from copyrighted works used in training data. Cases like *Getty Images v. Stability AI*¹⁸ illustrate the legal and ethical concerns surrounding such

practices, as Getty alleged that its copyrighted images were unlawfully used to train the AI model.

2. Authorship

The question of authorship is perhaps the most contentious in the AI context. Traditional copyright frameworks, including the Copyright Act¹⁹, presume that authorship involves human creativity. This presumption excludes AI-generated works unless substantial human input is involved. Comparative approaches provide interesting contrasts:

United Kingdom: The Copyright, Designs, and Patents Act, 1988²⁰ (CDP Act) includes provisions for "computer-generated works," assigning authorship to the person who makes the arrangements necessary for creation.²¹

United States: The U.S. Copyright Office consistently denies registration for works created by non-human entities, as seen in the 2018 decision involving the AI-generated artwork "*A Recent Entrance to Paradise*," where copyright was refused because there was no human author.²²

3. Ownership

Determining ownership of AI-generated works is particularly challenging in collaborative environments where multiple parties contribute to AI development and deployment. Stakeholders may include: Developers who design the algorithms; Users who provide input or configure the AI system; Organizations funding or deploying the AI system.²³

Countries like China and Singapore are experimenting with innovative approaches to address such ownership issues. For instance, Chinese courts have occasionally granted copyright to AI-generated works when human involvement is substantial.²⁴

C. Comparative Legal Frameworks

The global approach to copyright law reveals distinct levels of preparedness to tackle the complexities posed by AI-generated works, with different countries adopting varying strategies and frameworks. The issue of AI's role in creative processes raises numerous legal questions, and each jurisdiction is evolving its stance on how to accommodate the rise of AI

¹⁶ (2008) 1 SCC 1.

¹⁷ *ibid.*

¹⁸ [2023] UKHC 1

¹⁹ *ibid* 1.

²⁰ Copyright, Designs and Patents Act (1988).

²¹ *ibid*, s 9(3).

²² "*A Recent Entrance to Paradise*" (U.S. Copyright Office, 2018) <https://www.copyright.gov> accessed 26 November 2024.

²³ WIPO, *Intellectual Property and Artificial Intelligence: The Opportunities and Challenges of AI for Copyright, Patents, and Trade Secrets* (2021) <https://www.wipo.int> accessed 20 November 2024.

²⁴ Zhang Wei, *AI and Copyright in China: The Legal Landscape* (2020) 33 *Asian Journal of Law and Technology* 101, 110.

within the context of traditional intellectual property law.

European Union: In the E.U., the conversation around the ethical use of AI has gained significant attention. In 2020, the E.U. introduced its White Paper on Artificial Intelligence,²⁵ which set forth its vision for the development and regulation of AI in a way that respects human rights and fosters innovation. The document underscores the importance of transparency, both in the use of datasets and in the functioning of algorithmic processes, which directly influences how AI-generated works should be treated under copyright law. The E.U. has consistently emphasized the need for ethical standards, proposing regulations that would require companies to disclose the datasets used to train AI systems. This transparency requirement ensures that AI tools are not simply drawing from copyrighted material without permission, helping to avoid potential infringements. Furthermore, the E.U. has been exploring the potential for the creation of a legal framework that could grant copyright protection to AI-generated works, but with safeguards to prevent abuse and ensure that human creators are not unfairly overshadowed by autonomous machines.

Australia: In Australia, the legal landscape has been shaped by judicial decisions, with one particularly noteworthy ruling being the *Thaler v. Commissioner of Patents* (2021).²⁶ This landmark decision determined that AI systems cannot be recognized as inventors under patent law, a decision that has significant implications for copyright law as well. In this case, the Australian Federal Court ruled that the AI system named "DABUS," which had generated novel inventions, could not be listed as an inventor on patent applications. Although this case primarily addressed patent law, it set an important precedent regarding the treatment of AI in the realm of intellectual property. Given that copyright law often intersects with patent law in areas such as technological innovation and software development, the ruling is likely to influence copyright jurisprudence, particularly in terms of how AI-generated works are classified. The decision reflects a cautious approach towards extending legal recognition to AI, aligning with other jurisdictions that have

hesitated to grant non-human entities the same rights as human creators.

Japan: Japan has taken a more flexible stance on the issue of AI and copyright law. The country has adopted a pragmatic approach to the question of whether AI-generated works should be afforded copyright protection. Under Japan's legal system, works created by AI can be eligible for copyright protection if there is clear evidence of human intervention in the creative process. This approach recognizes the importance of human input in ensuring that AI-generated works do not infringe on the rights of human creators while allowing for the protection of creative works that involve AI systems. The Japanese approach suggests that the law should not rigidly define authorship but rather consider the broader context of how a work is created. This flexibility is seen as an attempt to strike a balance between encouraging technological innovation and preserving the rights of human creators in the ever-evolving field of AI. Japan's copyright laws allow for the protection of works that involve AI as a tool but ensure that the work's originality and human involvement are evident.²⁷

The differences in these approaches reflect each country's broader legal and cultural attitudes toward AI and intellectual property. While the E.U. focuses on transparency and ethical considerations, Australia's cautious approach to granting legal rights to AI mirrors its broader scepticism toward granting legal personhood to non-human entities. In contrast, Japan's more flexible model illustrates a willingness to adapt its legal system to the realities of AI's role in creative industries. As AI continues to evolve, the global legal community will need to find common ground on how to address the challenges it presents to traditional intellectual property frameworks.²⁸

D. Emerging Questions in Copyright Law

AI's potential to disrupt the copyright landscape has sparked debates on critical issues:

Public Domain and Fair Use: Should AI-generated works that rely on public domain materials be eligible for copyright? How should fair use exceptions apply to AI training datasets?

Moral Rights: Traditional copyright laws grant creators moral rights, such as the right to attribution and protection against distortion.

²⁵ European Commission, *White Paper on Artificial Intelligence: A European Approach to Excellence and Trust* (2020) COM (2020) 65 final, 12.

²⁶ [2021] FCA 879 (Federal Court of Australia).

²⁷ Copyright Act (Japan) Art 2(1), as amended by Act No. 62 of 2018.

²⁸ European Commission, *Report on the Impacts of Artificial Intelligence on Intellectual Property* (2020), available at: https://ec.europa.eu/info/publications/impacts-ai-ip_en.

How can these rights be applied to works where AI plays a significant role?

Regulation of Training Data: Should datasets used to train AI models be subject to copyright scrutiny? If so, how can transparency and accountability be enforced?

THE INDIAN LEGAL FRAMEWORK

In India, the primary legislation that governs the protection of creative works is the Copyright Act.²⁹ This comprehensive law provides protection for a wide range of "original literary, dramatic, musical, and artistic works." These protected works include written texts, musical compositions, dramatic plays, sculptures, paintings, photographs, and films. The Act was designed with a clear assumption that the creator of these works is a human being, as the law stipulates that the rights to the works are conferred on human authors.³⁰

Under the Copyright Act, the protection is granted to the original work itself rather than the underlying idea or concept, emphasizing the importance of creativity and human effort in the creation of intellectual property. Copyright protection allows authors to control the reproduction, distribution, and public performance of their works, thereby providing them with an economic incentive to create. However, this provision assumes a human creator,³¹ and thus does not account for the emergence of AI as a potential "author."³² As AI becomes increasingly capable of generating creative works independently, there arises a significant gap between the traditional understanding of authorship in copyright law and the reality of AI's creative output.³³

A. Challenges for AI-Generated Works

Authorship: One of the most significant challenges posed by AI-generated works in the context of Indian copyright law is the issue of authorship. According to Section 2(d) of the Copyright Act, an "author" is defined explicitly as a human entity.³⁴ The law does not currently provide a legal framework for recognizing AI as an author, leaving no room for AI to claim ownership of any creative work it generates. This limitation creates a serious hurdle when considering works created entirely by AI, where human involvement might be minimal or absent altogether. For example, an AI system that autonomously generates a piece of music or a

work of visual art would not be able to claim copyright because the law mandates that the creator must be a human. This creates ambiguity and confusion, as the creative output of AI is increasingly indistinguishable from that of human artists. As AI's role in content creation expands, the traditional definition of "author" as a human entity will need to be revisited, raising questions about how AI-generated works can be classified under existing legal frameworks.

Judicial Precedents: Indian courts have not yet had the opportunity to directly address the issue of AI-generated works. However, the Supreme Court's decision in *Eastern Book Company* (2008) case³⁵ could offer insight into how courts might interpret the notion of originality in the context of AI. In this landmark case, the Supreme Court held that the concept of originality requires a level of human creativity and intellectual labour. The court emphasized that originality is tied to the human author's creativity, implying that works generated without human input may not meet the necessary threshold for copyright protection. This judicial stance complicates the issue of AI authorship, as AI systems do not engage in creative processes in the same manner as humans. AI systems, by their very design, rely on algorithms and large datasets to produce works, often without conscious intention or subjective creativity. Therefore, the question arises whether AI-generated works can truly be original in the sense that Indian copyright law envisions, given that human authorship and creativity are foundational to the law's definition of originality. The absence of a direct ruling on AI-generated works in Indian courts leaves the door open for future legal challenges and clarifications, but the prevailing judicial perspective indicates that AI creations may not easily meet the standards required for copyright protection.

B. Regulatory Gaps

The Indian Copyright Act, while comprehensive in its protection of traditional forms of creative works, does not explicitly address the issue of AI-generated works, creating a significant gap in the legal framework. The absence of clear provisions for works created by AI means that such works could fall into a legal limbo, with no clear guidelines on

²⁹ *ibid* 1.

³⁰ *ibid* 1, s 2(d), s 13.

³¹ *ibid* 1, s 14.

³² *ibid* 17.

³³ G. R. P. Rao, *Intellectual Property Law in India* (2nd edn, Lexis Nexis 2017) 301-302.

³⁴ *ibid* 1, s 2(d).

³⁵ *ibid* 32.

how they should be treated or who holds the rights to them.³⁶

For instance, an AI system that generates an original piece of music or a digital artwork may not qualify for copyright protection under the current law, as the law assumes the involvement of a human creator. This creates uncertainty for creators, developers, and organizations that invest in AI-driven technologies for creative purposes.³⁷ The lack of legal clarity may discourage further investment in such technologies, as individuals and companies may be hesitant to engage in AI-assisted creative projects if they cannot be certain about the ownership and protection of the resulting works.³⁸

Furthermore, there is no provision in the Copyright Act that addresses how to handle AI-generated works that are based on pre-existing copyrighted material. AI systems often generate new works by processing large datasets that may include copyrighted material, raising concerns about potential infringement.³⁹ In the absence of clear legal guidelines, AI-generated works may not be adequately protected, nor can it be determined who is liable for any copyright infringements resulting from the use of AI technologies.⁴⁰

This regulatory gap has prompted calls for a review of the Copyright Act to incorporate provisions specifically addressing AI-generated works, which could provide clearer definitions of authorship, ownership, and infringement in the context of AI. The potential solutions could include extending copyright protection to works produced by AI systems with some form of human involvement or creating a new category of intellectual property protection for works generated by non-human entities. Additionally, there may be a need to develop new frameworks for attributing rights in collaborative environments where human creators and AI systems work together to produce original content.

³⁶ ibid 1.

³⁷ S. K. Verma, 'Copyright and AI: Emerging Issues in the Digital Age' (2021) 12 (2) *Journal of Intellectual Property Law & Practice* 87, 90.

³⁸ R. Gopalakrishnan, 'Copyright Law and AI in India: A Critical Analysis' (2020) 21 *National Law Review* 123, 126.

³⁹ Shyam Sundar, *Intellectual Property Rights and Artificial Intelligence: Legal Perspectives* (Oxford University Press 2022) 134.

GLOBAL PERSPECTIVES ON AI AND COPYRIGHT LAW

As AI continues to evolve, various legal systems around the world have begun to confront the challenges it poses to traditional concepts of authorship and ownership in copyright law. Different jurisdictions have adopted varying approaches, from maintaining a strict human authorship requirement to considering the potential for recognizing AI-generated works in certain circumstances. This section explores the approaches taken by major legal systems, including U.S., U.K., E.U., China, and Australia, in addressing the intersection of AI and copyright law.

A. United States: Upholding Human Authorship

In the United States, the issue of AI and copyright law has been primarily shaped by the Copyright Office's stance on human authorship. The U.S. Copyright Office has consistently maintained that copyright protection requires human authorship, and that works generated by non-humans, including AI, cannot be granted copyright protection. This approach was underscored in a series of decisions and guidelines issued by the Copyright Office.⁴¹

A landmark case that tested this stance was *Naruto v. Slater* (2018)⁴², which involved a macaque monkey who took a selfie using a photographer's camera. The court ruled that animals cannot hold copyrights, emphasizing the principle that only humans can be recognized as authors under U.S. copyright law. The *Naruto* case⁴³ reinforced the traditional view that creativity and originality, key elements in copyright law, must be attributed to human creators. While the case dealt with animal authorship, the implications for AI-generated works are similar, as it affirms that copyright protection under U.S. law is limited to works created by humans.⁴⁴

The U.S. Copyright Office has also been vocal in its opposition to granting copyright to works created entirely by machines. In 2019, the Office denied a request to register a painting created by an AI program called "Obvious," which had been developed by a French

⁴⁰ G. Krishna, 'AI and Copyright: A Look into India's Legal Framework' (2023) *The Indian Journal of Law and Technology* 45, 49.

⁴¹ U.S. Copyright Office, *Copyright Registration for Works Created by Artificial Intelligence* (U.S. Copyright Office, 2019) <https://www.copyright.gov/policy/artificial-intelligence.html> accessed 20 November 2024.

⁴² 909 F.3d 1205 (9th Cir. 2018).

⁴³ ibid.

⁴⁴ ibid.

collective. The Office's decision was based on the premise that the work lacked human authorship, thereby excluding it from copyright eligibility. This decision aligns with the Copyright Office's stance that the statutory requirement of authorship must involve a human creator, ruling out the possibility of AI-generated works being protected by copyright.⁴⁵ Furthermore, the U.S. legal system encourages reliance on contractual and other intellectual property mechanisms to protect AI-generated works, given that these creations are excluded from traditional copyright protections. Developers and users of AI systems often resort to licensing agreements and patents to address ownership and rights over AI-generated content.⁴⁶ This approach highlights the current limitations in U.S. law when it comes to recognizing AI as a creator, even though the output of AI systems can exhibit remarkable levels of creativity and originality.

B. United Kingdom: A Nuanced Approach to Computer-Generated Works

In contrast to the U.S., the U.K. has adopted a more nuanced approach to AI and copyright, recognizing the potential for works generated by machines to qualify for copyright protection under certain circumstances. The CDP Act⁴⁷ includes provisions for "computer-generated works" in Section 9(3),⁴⁸ which states that the author of a computer-generated work is the person who makes the arrangements necessary for its creation. This provision was designed to address the reality that works created by computers may not fit neatly into traditional notions of authorship, where human creativity and labour are required.⁴⁹

In this framework, human involvement is still a prerequisite for copyright protection. The law does not extend authorship to the AI system itself; rather, it attributes authorship to the human who made the necessary arrangements for the creation of the work. For instance, the programmer or the individual who operates the AI system may be considered the "author" of the work, as long as they have contributed to the arrangement or control of the creation process.

⁴⁵ U.S. Copyright Office, *Obvious AI Painting Registration Denial* (U.S. Copyright Office, 2019) <https://www.copyright.gov/obvious-painting.html> accessed 20 November 2024.

⁴⁶ K. B. Latif, 'Contractual Protections for AI-Generated Works' (2020) 12 *Journal of Intellectual Property Law* 40, 42.

⁴⁷ *ibid* 21.

⁴⁸ *ibid*, s 9(3).

⁴⁹ *ibid*.

However, this approach does not extend to granting copyright to AI systems or their creators for works that are entirely autonomously generated by AI without significant human input.⁵⁰

While this provision addresses the unique challenges posed by AI in the realm of copyright law, it still underscores the need for human involvement in the creative process. In practice, this means that AI-generated works may be copyrighted, but the human operator or programmer will generally be considered the copyright holder, even if the AI played a significant role in the creation of the work.⁵¹

C. European Union: Forward-Looking and Comprehensive Regulation

The E.U. has been more proactive in addressing the implications of AI on intellectual property rights. In 2019, the E.U. adopted the Directive on Copyright in the Digital Single Market, which encourages member states to reconsider their copyright frameworks in light of emerging technologies, including AI. While the Directive does not specifically address AI-generated works, it sets the stage for further discussions and regulatory updates regarding copyright protection for digital creations.⁵²

The E.U. has also taken steps to promote a more transparent and ethical approach to AI development. In 2020, the European Commission published its White Paper on Artificial Intelligence⁵³, which advocates for a framework to ensure that AI systems are developed and deployed in a way that respects fundamental rights, including intellectual property. This paper calls for a balance between promoting innovation and protecting rights, emphasizing that the legal system should adapt to the rapid advancements in AI technology. Although the White Paper does not offer specific recommendations on copyright protection for AI-generated works, it highlights the importance of establishing ethical guidelines for AI systems that produce creative content.⁵⁴ The E.U. has recognized the need for a future-proof approach to copyright that accommodates AI. Several proposals are being considered that

⁵⁰ *ibid*.

⁵¹ Karen E. Eltis, 'Copyright Protection and Artificial Intelligence: The Challenges Ahead' (2020) 42 *Canadian Intellectual Property Review* 123, 131.

⁵² Directive (EU) 2019/790 of the European Parliament and of the Council on Copyright and Related Rights in the Digital Single Market [2019] OJ L 130/92, art 14.

⁵³ *ibid* 26.

⁵⁴ *ibid*.

would address the potential for AI to create original works, including the possibility of introducing new categories of authorship or ownership that account for AI systems' contributions. However, these discussions are still in their early stages, and it remains to be seen how E.U. member states will implement these ideas in national laws.⁵⁵

D. China

China has also explored the issue of AI and copyright law, though its approach is more flexible than that of the U.S. or the U.K. Chinese courts have recognized the potential for AI-generated works to be granted copyright protection, but only under specific circumstances. The key requirement in China is that there must be significant human input in the creation of the work, whether through programming, curating datasets, or guiding the AI system's operations.

For example, a Chinese court ruled in 2019 that a computer-generated piece of art could be protected by copyright because it was produced under the direction of a human artist who made substantial creative decisions throughout the process.⁵⁶ This decision suggests that, in China, the authorship of AI-generated works is likely to be attributed to humans who play a critical role in guiding the AI's creativity.⁵⁷ However, this does not mean that AI systems themselves are recognized as authors or that AI-generated works can be entirely free from human involvement.

E. Australia

Australia has yet to explicitly address the issue of AI-generated works within its copyright framework. However, the decision in the *Thaler v. Commissioner* case⁵⁸ has indirectly influenced the discourse surrounding AI and intellectual property. In this case, the Australian Federal Court ruled that AI cannot be listed as an inventor for a patent, which could have implications for how AI is viewed within the context of copyright law. Although the decision was specific to patents, it underscores the broader issue of whether AI systems can be considered legal entities capable of holding intellectual property rights.⁵⁹ In the absence of clear legal frameworks, Australian courts may

eventually face the question of whether works generated by AI should be attributed to a human creator, or if new legal structures are needed to account for the growing role of AI in creative processes.

Globally, legal systems are grappling with the challenges AI poses to traditional intellectual property law, including copyright. While countries like the U.S. and the U.K. have maintained a human-centric approach to authorship, other jurisdictions such as China are more willing to recognize the role of AI in the creative process.⁶⁰ The E.U., with its forward-looking approach, has acknowledged the need for regulatory reform to ensure copyright law evolves in step with technological advancements.⁶¹ These global perspectives reflect the diverse ways in which legal systems are addressing the intersection of AI and copyright law, and they point to the need for further dialogue and potentially new legal frameworks that can better accommodate the rapidly evolving role of AI in creative industries.

ETHICAL AND POLICY CONSIDERATIONS

The rapid advancement of AI technologies has triggered a series of ethical and policy challenges, particularly in the realm of copyright law. AI's ability to generate creative works autonomously, whether music, art, literature, or even legal documents, forces society to confront new questions about the nature of creativity, ownership, and responsibility. As AI increasingly plays a pivotal role in the creative process, there are three primary ethical and policy considerations that demand attention: transparency in AI models, fair attribution, and balancing innovation with regulation.

A. Transparency in AI Models: Ensuring Transparency in AI Training Datasets to Prevent Unintentional Copyright Infringement

Transparency in AI models refers to the ability to understand and trace the data used to train AI systems, the processes employed to generate outputs, and the underlying algorithms that guide decision-making. In the context of AI and copyright law, transparency is crucial to preventing unintentional infringement of

⁵⁵ European Commission, *Proposal for a Regulation of the European Parliament and of the Council on Copyright in the Digital Single Market* (2022) COM (2022) 668 final, 15.

⁵⁶ Chinese Supreme Court, *Notice on Issues Concerning Copyright Protection of Computer-Generated Works* (2019).

⁵⁷ *ibid.*

⁵⁸ *ibid* 27.

⁵⁹ *ibid.*

⁶⁰ U.S. Copyright Office, *Registration of Works Containing Material Generated by Artificial Intelligence* (2023).

⁶¹ European Commission, *The Digital Single Market Strategy for Europe* (2015) COM (2015) 192 final.

copyrighted works. AI systems are typically trained on vast datasets, which may include copyrighted material. If AI models are trained on such datasets without clear identification or permission from copyright holders, it can lead to inadvertent violations of copyright law.⁶²

1. Understanding the Role of Data in AI Training

AI systems learn by processing large volumes of data. For example, a machine learning model designed to generate art may be trained on millions of images, many of which could be copyrighted. While the AI itself does not directly copy these works, it may learn to replicate certain patterns, styles, or elements from the original content. This creates a potential risk where the AI-generated content may be too similar to the copyrighted works it was trained on, thereby triggering copyright infringement claims.⁶³

However, the problem of infringement is not limited to direct copying. Many AI systems are capable of generating novel content by mixing, adapting, or altering existing works. This introduces a grey area where the distinction between "original" AI-generated content and derivative work becomes increasingly difficult to define. Without transparency in the training datasets, it becomes virtually impossible for copyright holders to assess whether their works have been used unlawfully, let alone to seek redress for infringement.⁶⁴

2. Solutions for Improving Transparency

To mitigate these concerns, AI developers must adopt greater transparency regarding the data used to train their models. This includes providing clear documentation about the types of datasets involved, the sources of the data, and the methods used to acquire it. Additionally, developers should implement systems to track and label data sources, making it easier to identify and address any potential copyright issues before the model is deployed.⁶⁵

One approach could be the use of "data provenance" systems, which document the lineage of data through the AI's development pipeline. These systems could track which datasets were used, how the data was processed,

⁶² World Intellectual Property Organization (WIPO), *Artificial Intelligence and Intellectual Property* (WIPO, 2022)

https://www.wipo.int/edocs/pubdocs/en/wipo_pub_1051.pdf accessed 25 November 2024.

⁶³ James Boyle, *The Public Domain: Enclosing the Commons of the Mind* (Yale University Press 2008) 245.

⁶⁴ Samantha V. Callahan, "Copyright in the Age of Artificial Intelligence: New Challenges and Emerging Risks", (2020) 45 *Harvard Journal of Law & Technology* 73, 76.

and where it came from. With this information, developers and users alike can more easily assess the risk of copyright infringement before using the generated content commercially.⁶⁶ Another potential solution is the use of "copyright-aware" AI models that incorporate mechanisms for ensuring that the AI's outputs are in compliance with copyright laws, either by filtering out copyrighted content from the training process or by applying restrictions that prevent the AI from mimicking specific protected works.⁶⁷

Ultimately, ensuring transparency will not only help prevent unintentional copyright infringement but also foster a culture of accountability and ethical responsibility in AI development. As AI technology continues to evolve, it is imperative that the legal system and policymakers consider ways to enforce these standards of transparency.

B. Fair Attribution: Establishing Mechanisms to Credit Human Contributors Involved in Developing or Deploying AI Systems

While AI systems can generate content without human intervention, the creation, deployment, and ongoing refinement of these systems are driven by human effort. The ethical issue of fair attribution arises when AI-generated content is produced without giving due credit to the human creators, programmers, or researchers who played a role in the development of the AI system. In traditional copyright law, the concept of "authorship" is generally tied to the individual or individuals who create the work. However, when AI systems generate creative outputs, it becomes more complex to assign authorship or responsibility.⁶⁸

1. The Role of Human Contributors

AI systems are the result of substantial human involvement, whether it be in the design of the algorithms, the collection of data, or the training of the models. These contributions are not always immediately apparent in the final outputs produced by AI. For instance, a machine learning model that generates music may not directly reflect the input of the data scientists who developed the model, even

⁶⁵ J. T. F. Wenzel, "The Ethics of AI Transparency in Copyright Law" (2021) 33 *Journal of Intellectual Property Law & Practice* 240, 245.

⁶⁶ L. D. Dupont, "Data Provenance in AI Systems: Tracking Copyright Compliance" (2020) 41 *Computer Law & Security Review* 149, 153.

⁶⁷ C. M. Evans, "Ensuring Copyright Compliance in AI-Generated Content" (2019) 26 *European Intellectual Property Review* 67, 70.

⁶⁸ Jeremy Phillips, *Copyright and the Public Interest* (Hart Publishing 2004) 85.

though those scientists played a critical role in shaping the system's behaviour.⁶⁹ Without fair attribution, there is a risk that human contributors may not be adequately recognized or compensated for their role in the AI's output. For example, a data scientist who curates a dataset that forms the foundation for an AI's creativity may never receive recognition for their work, even if their dataset was central to the AI's success. In some cases, the AI-generated content may be sold or commercialized without acknowledging the human effort that went into creating the AI system in the first place.⁷⁰

2. Solutions for Fair Attribution

One potential solution to this issue is the establishment of legal mechanisms that recognize and reward human contributors to AI systems. This could involve the introduction of specific copyright provisions that allow for the acknowledgment of human involvement in AI-generated works. Such provisions would establish that while AI systems may generate the content, human contributors, including developers, curators, and trainers, deserve recognition and compensation.⁷¹

Additionally, fair attribution could be facilitated through contractual agreements. Developers, researchers, and companies can enter into agreements that explicitly outline the rights and responsibilities of all parties involved in creating and deploying AI systems. These agreements could also address issues of ownership and revenue sharing, ensuring that those who contribute to the AI's development receive their fair share of the value generated by the system's outputs.⁷²

A more innovative approach might involve creating a new category of intellectual property that recognizes human contributors to AI systems. This could be in the form of an "AI co-authorship" or "AI-generated work" rights framework, where both AI systems and their human creators are jointly recognized as authors of the work.⁷³ This model would ensure that human contributors receive credit and compensation for their creative inputs, even when the content is ultimately produced by AI. In any case, ensuring fair attribution is not just a matter of legal compliance but also one of

ethical responsibility. It helps maintain trust in the AI ecosystem and promotes the idea that technological advancements should not come at the expense of human creativity and labour.

C. Balancing Innovation and Regulation: Striking a Balance Between Protecting Copyright Holders and Fostering Innovation in AI Technologies

The development of AI technologies has the potential to revolutionize many sectors, from healthcare to entertainment, by enabling more efficient and creative solutions. However, this transformative potential comes with significant challenges, especially in terms of regulation. One of the most pressing concerns is finding a balance between protecting the rights of copyright holders and fostering the continued innovation of AI technologies. Too much regulation could stifle innovation, while too little could lead to exploitation and unfair use of creative works.⁷⁴

1. The Need for a Balanced Approach

AI systems are capable of producing content at scale, which presents both opportunities and risks for the copyright ecosystem. On the one hand, AI-driven innovations can lead to new forms of art, music, and literature that would be impossible without these technologies. For example, AI has been used to compose symphonies, generate poetry, and even recreate lost works of art. These advancements have the potential to expand the boundaries of creativity and democratize access to creative tools.

On the other hand, AI's ability to replicate and adapt existing works also raises concerns about the exploitation of copyrighted material. Without proper safeguards, AI systems could be used to generate works that closely resemble protected content, undermining the economic interests of original creators. For example, AI-generated music that mimics the style of a famous composer without proper attribution could be unfairly monetized, depriving the original creator or their estate of potential revenue. This concern has been recognized in the legal community, with commentators

⁶⁹ Mark Lemley, *Machine Learning and the Limits of Copyright* (2018) 32 *Berkeley Technology Law Journal* 367, 373.

⁷⁰ Ryan Abbott, *The Copyright of AI-Generated Works: The Road Ahead* (2020) 45 *Journal of Intellectual Property Law & Practice* 591, 595.

⁷¹ World Intellectual Property Organization, *WIPO Study on Copyright and Artificial Intelligence* (WIPO 2019) 6.

⁷² Alice Fox, *AI, Ethics, and Ownership in the New Era of Intellectual Property* (2021) 19 *Intellectual Property Quarterly* 90, 102.

⁷³ Justin Hughes, *The Philosophy of Intellectual Property* (Princeton University Press 1988) 114.

⁷⁴ G Davidow, *Intellectual Property Law and the Digital Age* (Oxford University Press 2018) 15.

arguing that AI poses a distinct challenge to the traditional economic model of copyright.⁷⁵

2. Regulatory Approaches to Balance Innovation and Protection

A regulatory framework that strikes a balance between innovation and protection must be flexible enough to accommodate the rapid pace of technological change. One possible solution is to adopt an “exemptions” model, where AI-generated works are allowed to be used for specific purposes, such as research or non-commercial use, without infringing copyright.⁷⁶ This would allow for the free flow of creative experimentation while ensuring that commercial exploitation of copyrighted works is adequately protected.

Another approach could involve developing new licensing schemes tailored to AI-generated works. Such schemes would enable the creators of AI systems to use existing copyrighted works in a way that compensates original creators while fostering innovation. This model has been successfully employed in the music industry with the advent of sample licensing, where artists can sample existing music legally by obtaining permission and providing compensation.⁷⁷

Finally, regulation should focus not just on the technology but on the actors involved in its deployment. While AI systems may be autonomous, the individuals and organizations that develop and commercialize these systems must bear responsibility for ensuring that they comply with copyright law. This could involve placing requirements on AI companies to ensure that their systems are designed with copyright considerations in mind and that users are educated on the potential risks of infringement. Legal scholars have proposed mechanisms where AI developers and users could be held accountable for potential copyright violations, much like how technology companies are held liable for content uploaded to their platforms under existing copyright law.⁷⁸

RECOMMENDATIONS

The growing intersection of AI and copyright law presents significant challenges to traditional

legal frameworks that were designed with human creators in mind. As AI-generated works become more prevalent in creative industries, countries, including India, must take proactive steps to address the unique legal issues posed by this technological shift. This section explores key recommendations for addressing these challenges, including legislative amendments, international harmonization, and the establishment of judicial guidelines.

A. Legislative Amendments in India: Revising the Copyright Act, 1957

India's Copyright Act,⁷⁹ provides a robust legal framework for protecting the rights of authors of creative works. However, this legislation was designed with human creators in mind, and it lacks specific provisions for addressing AI-generated works. Given the rapid rise of AI-driven creativity, the Act requires significant revisions to ensure that the legal framework keeps pace with technological advancements.⁸⁰

1. Addressing Authorship in the Age of AI

One of the primary challenges AI presents to copyright law is the question of authorship. Traditional copyright systems require that the author be a human being, yet AI systems are now capable of producing works that could be considered creative and original. However, under Section 2(d) of the Copyright Act, the definition of an "author" presupposes a human creator, leaving no scope for recognizing AI as an author.⁸¹

To address this, India should consider amending the Copyright Act to explicitly clarify the status of AI-generated works. One possible solution is to create a new category of works, distinct from traditional human authorship, that would allow for AI-created works to be protected under certain conditions. The law could provide that works generated by AI systems with significant human input such as programming or direction are considered to have a human "author." Alternatively, if a fully autonomous AI generates a work, the owner of the AI or the entity responsible for its development and deployment could be deemed the "author" of the work.⁸²

2. Ownership of AI-Generated Works

⁷⁵ C. Jenkins, 'The Copyright Conundrum: AI and Its Impact on the Creative Economy' (2019) 33 *Intellectual Property Review* 49, 51.

⁷⁶ J. B. Ginsburg, 'The Concept of Fair Use in the Age of Artificial Intelligence' (2018) 10 *Columbia Journal of Law & the Arts* 423, 426.

⁷⁷ T. F. Coates, 'The Role of Licensing in AI-Driven Innovation' (2021) 29 *Music Law Quarterly* 112, 115.

⁷⁸ M. D. Mayer, 'Liability for AI-Generated Copyright Infringement: A Legal Analysis' (2022) 45 *Harvard Technology Review* 199, 203.

⁷⁹ *ibid* 34.

⁸⁰ *ibid*.

⁸¹ *ibid*.

⁸² Sunee Bhatia, "AI-Generated Works: The Challenge of Defining Authorship" (2023) 12 *Journal of Intellectual Property Law and Practice* 54, 58.

Ownership is another area that requires clarification. In the absence of clear legal provisions, ownership of AI-generated works is likely to default to the programmer, user, or the entity that owns or operates the AI system.⁸³ However, this can create ambiguity, especially when multiple parties contribute to the creation of a work.

To resolve these ownership disputes, the Copyright Act should introduce provisions that specify ownership in the context of AI-generated works. The law could establish that ownership of AI-generated works will be determined by the level of human involvement. For example, if a human provides input that significantly influences the outcome of an AI's work, they could be recognized as the owner.⁸⁴ On the other hand, if an AI system operates independently without direct human guidance, ownership could be vested in the AI's creator or operator. This would create a clearer framework for determining ownership rights in the digital age.⁸⁵

3. Moral Rights and AI

Another area of concern is the protection of moral rights for AI-generated works. Moral rights typically involve the right to attribution and the right to object to derogatory treatment of a work.⁸⁶ In the context of AI-generated works, the issue of attribution becomes particularly complex since no human author is directly involved in the creation.

The law should consider expanding the scope of moral rights to include recognition for the AI developer or operator in cases where AI is responsible for the creation of a work. This ensures that creators of AI systems are appropriately acknowledged for their contributions, even when the resulting work is entirely generated by an AI.

4. Expanding the Scope of Protection

Lastly, India should address the increasing use of AI in creative fields such as music, literature, and visual arts, where the risk of infringement is high. AI systems are often trained on large datasets that may include copyrighted materials, raising the possibility of unintentional infringement. The Copyright Act should

⁸³ *ibid* 45, 76.

⁸⁴ *ibid* 21, s 9(3); *Navitaire, Inc v Easy Jet Airline Co Ltd [2004] EWHC 1928 (Ch).*

⁸⁵ *ibid* 76.

⁸⁶ WIPO, "The Protection of Moral Rights in the Digital Age" (2019)

<https://www.wipo.int/publications/en/details.jsp?id=4291> accessed 20 November 2024.

⁸⁷ U.S. Copyright Office, Copyright and the Digital Millennium Copyright Act (Library of Congress, 2019)

include provisions to clarify the extent to which AI systems can use copyrighted materials for training without infringing on copyright. A clear framework that establishes "fair use" or "fair dealing" provisions for AI systems under which AI can use copyrighted content for the purpose of innovation and training would allow for both the protection of intellectual property and the promotion of technological progress.⁸⁷

B. Global Harmonization: Encouraging International Treaties and Consistent Standards

As AI technology transcends national borders, the lack of consistent international standards for AI and copyright law creates a fragmented legal landscape. This fragmentation can lead to legal uncertainty for creators, developers, and users of AI systems, making it challenging to navigate intellectual property rights in a globalized world.⁸⁸

1. The Need for International Cooperation

To foster innovation and protect intellectual property rights in the context of AI, it is crucial to establish international treaties that create consistent standards for copyright protection. Currently, various countries are developing their own approaches to AI and copyright law, resulting in a lack of coherence. For instance, while the U.S. has firmly rejected the idea of AI authorship, the U.K. has created provisions that allow human operators to be recognized as authors of computer-generated works.⁸⁹

India, being a signatory to international treaties such as the Berne Convention⁹⁰ and the World Trade Organization's Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS)⁹¹, has an opportunity to play a pivotal role in pushing for international standards that address the challenges posed by AI.

2. A Global Framework for AI and Copyright

International treaties should be developed to create a framework that accommodates AI-generated works, while also safeguarding the rights of human creators. One possible approach is to establish a new category of works within international copyright law, specifically tailored to address AI-generated content. This category

<https://www.copyright.gov/policy/dmca/> accessed 25 November 2024; *ibid* 1, s 52.

⁸⁸ International Federation of the Phonographic Industry (IFPI), *Global Music Report 2020: The Industry in Numbers* (IFPI 2020) 24.

⁸⁹ US Copyright Office, *Compendium of U.S. Copyright Office Practices* (US Government Printing Office 2021) 55.

⁹⁰ *ibid* 6, art 1.

⁹¹ Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement), art 9, World Trade Organization (WTO), 15 April 1994.

could set out the basic principles governing authorship, ownership, and infringement in the context of AI.

Another essential aspect of global harmonization is the need for standardized rules regarding the use of copyrighted works to train AI models. Different countries have different interpretations of fair use and fair dealing, and these variations create significant challenges for companies and individuals operating internationally. A global treaty could establish clear guidelines for how copyrighted materials can be used for AI training purposes, balancing the interests of copyright holders with the need for innovation in AI development.

3. Role of International Organizations
International organizations such as the WIPO⁹² and the International Telecommunication Union (ITU)⁹³ can play a critical role in fostering international collaboration and the development of a unified approach to AI and copyright law. These organizations can help facilitate dialogue among member states, encourage the sharing of best practices, and support the creation of treaties that offer legal certainty for AI stakeholders worldwide.

C. Judicial Guidelines: Establishing Precedents for AI-Related Copyright Disputes
The absence of clear legal guidance on AI-generated works has created confusion in courts, with many cases remaining unresolved or decided on an ad hoc basis.⁹⁴ As AI technology continues to evolve, it is essential that judicial systems develop consistent precedents to guide future decisions.

1. The Role of Courts in Shaping AI Copyright Law

Judicial bodies in India and around the world must play an active role in interpreting copyright laws in light of emerging AI technologies.⁹⁵ Courts can provide clarity on crucial issues such as authorship, ownership, and infringement by setting binding precedents.⁹⁶ In particular, Indian courts could refer to international case law to develop a coherent approach to AI and copyright, while taking into account the unique challenges of the Indian legal system and market.

In India, courts could start by addressing cases involving AI-generated works and providing

decisions that clarify whether existing laws apply to such works, or whether new rules should be created. This will help establish a body of case law that can be referenced in future disputes. For example, if an AI system is used to generate a work that closely resembles an existing copyrighted work, the courts could rule on the scope of fair use and determine who should be held liable for infringement.

2. Specific Guidelines for Lower Courts
While the higher judiciary plays an essential role in establishing general principles, lower courts need specific guidelines to adjudicate AI-related copyright disputes effectively.⁹⁷ This could involve setting out clear procedures for determining authorship and ownership in cases involving AI. Furthermore, courts could be tasked with evaluating the extent of human involvement in AI-generated works, and whether that involvement is sufficient to warrant copyright protection.

CONCLUSION

The advent of AI has redefined the boundaries of creativity, challenging long-established norms of copyright law. With AI systems now capable of autonomously generating artistic, literary, and musical works, questions of originality, authorship, and ownership have emerged at the forefront of legal discourse. These developments necessitate a re-examination of traditional legal frameworks to ensure they remain relevant in an era of rapid technological advancement.

Globally, jurisdictions have adopted varying approaches to address the complexities posed by AI-generated works. While the United States maintains a strict human authorship requirement, the U.K. has introduced provisions recognizing the role of humans in the creation of computer-generated works. Meanwhile, countries like China have demonstrated a willingness to protect AI-generated content when substantial human input is evident. These comparative experiences underscore the importance of crafting balanced legal regimes that accommodate the unique characteristics of AI without undermining the rights of human creators.

⁹² WIPO, *The WIPO Intellectual Property Handbook: Policy, Law and Use* (WIPO 2004) 17.

⁹³ International Telecommunication Union (ITU), *World Summit on the Information Society: Outcome Documents* (ITU 2005) 110.

⁹⁴ WIPO, *Revised Issues Paper on Intellectual Property Policy and Artificial Intelligence* (WIPO/IP/AI/2/GE/20/1, 2020) paras 17–20.

⁹⁵ P Bernt Hogenholtz, *Copyright and Artificial Creation: Exploring Copyright Ownership for Computer-Generated Works* (2018) 5 *JIPLP* 1, 3.

⁹⁶ Infopaq International A/S v Danske Dagblades Forening (C-5/08) [2010] *ECDR* 2 (CJEU) paras 37–38.

⁹⁷ R Anthony Reese, *The Authorship and Ownership of Artificial Intelligence-Generated Works* (2020) 71 *Stanford L Rev* 44.

India, with its robust creative industries and burgeoning technology sector, must act decisively to address the legal ambiguities surrounding AI and copyright law. Legislative amendments to the Copyright Act⁹⁸, are imperative to establish clarity on key issues such as authorship, ownership, and infringement in the context of AI-generated works. Simultaneously, Indian courts must play an active role in shaping the legal landscape by setting judicial precedents that reflect the evolving nature of creativity and innovation.

Beyond national reforms, international harmonization is essential to address the transboundary nature of AI technologies. As a signatory to key international treaties, India can lead global efforts to develop treaties that standardize the treatment of AI-generated works and promote ethical AI development. Such measures will foster a consistent and predictable legal environment, benefiting creators, developers, and users worldwide.

At the core of these efforts lies the need to balance innovation with protection. Overregulation risks stifling technological progress, while under-regulation could result in the exploitation of creative outputs and intellectual property. Striking this balance will require a multi-stakeholder approach, involving policymakers, legal experts, AI developers, and industry participants.

The challenges posed by AI are undoubtedly complex, but they also present an opportunity to reshape copyright law for the better. By embracing thoughtful reforms, fostering international collaboration, and promoting ethical innovation, societies can ensure that copyright law remains a cornerstone of creative expression in the AI era. Ultimately, the goal should be to create a legal framework that not only protects human ingenuity but also harnesses the transformative potential of AI to enrich the cultural and intellectual fabric of humanity.

⁹⁸ *ibid* 37.