

Empirical Study on the Appropriation of Art (Copyright) in AI-Generated Works with Special Reference to Indian Copyright Law

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Abstract: *The swift growth of generative artificial intelligence (AI) has changed the production of literature, art, music, and digital content, prompting new legal issues regarding authorship and ownership. This research thoroughly analyzes if works created by AI are eligible for copyright protection according to the Indian Copyright Act of 1957. Given that the Act was created at a time when autonomous machine creativity was unforeseen, it lacks clear directions on addressing works generated with little or no human participation.*

The study investigates crucial topics like the necessity of human authorship, the criterion of originality according to Indian law, and the difficulties presented by AI systems that function without conventional human creativity. It also examines comparative methods, specifically the United Kingdom's legal concept of "computer-generated works" and the United States' focus on meaningful human input. These viewpoints emphasize the shortcomings and ambiguities in India's existing legal structure.

The research finds that Indian copyright legislation requires more defined guidelines to tackle AI-generated works, especially in relation to authorship, ownership, moral rights, and the degree of human involvement necessary for safeguarding. It recommends implementing a "substantial human input" criterion, backed by administrative guidelines, to reconcile innovation with the fundamental goals of copyright. This study ultimately seeks to enhance the ongoing dialogue regarding how Indian legislation can evolve with technological progress while maintaining the essence of creativity and equity.

Keywords: Artificial intelligence, Copyright protection, Computer-generated works, Substantial human input

I. INTRODUCTION

In recent years, artificial intelligence—especially generative AI—has moved from being a futuristic idea to an everyday reality. Tools that can write poems, compose music, design graphics, or generate computer code are now widely accessible, and they continue to evolve at a rapid pace. What once required human creativity and artistic skill can now be produced by machines within seconds. This shift has opened extraordinary opportunities for innovation, but it has also raised important legal and ethical questions, particularly in the field of copyright law.

In India, the Copyright Act, 1957 was crafted at a time when creativity was understood almost entirely as a human activity. The law assumes the presence of a human author—someone who exercises skill, judgment, and creativity. However, modern AI systems challenge these assumptions. When an image, article, or song is generated by an AI model with little or no human involvement, it becomes unclear who, if anyone, should be considered the "author." Should copyright belong to the person who provided the prompts? Should it belong to the developer of the AI system? Or should purely machine-generated works be excluded from copyright protection altogether?

These questions become even more pressing as AI-generated content spreads across entertainment, advertising, education, journalism, and software development. Businesses rely on AI tools for rapid creative output, and individuals use them for personal and professional tasks. As the use of such tools increases, disputes over ownership, originality,



and authorship are becoming inevitable. Without clear legal guidance, creators, companies, and even courts are left to navigate a grey area.

The issue is further complicated by the fact that different countries are taking different approaches. While some jurisdictions recognise limited rights in computer-generated works, others outright deny copyright protection unless a human creator can be identified. India, meanwhile, stands at an important crossroads. The country's current legal framework neither explicitly supports nor rejects the copyrightability of AI-generated works, creating ambiguity for users and developers alike.

A deeper understanding of this issue is essential not only for legal scholars but also for policymakers, creative professionals, and the growing AI industry. As India positions itself as a global hub for technology and digital innovation, the question of how to manage authorship and ownership in AI-generated content becomes a matter of significant national importance. This introduction sets the stage for a critical exploration of the challenges, debates, and evolving legal principles surrounding the copyrightability of AI-generated works under Indian law.

OBJECTIVES

- To analyse the existing provisions of the Indian Copyright Act, 1957 and assess their applicability to AI-generated works.
- To examine the role of human authorship and originality in determining the copyrightability of machine-generated content.
- To compare India's legal position with international approaches to copyright protection for AI-generated works.
- To propose legal and policy recommendations for addressing gaps in the Indian copyright framework regarding AI-generated creativity.

FACTORS AFFECTING THE COPYRIGHTABILITY OF AI-GENERATED WORKS

1. Degree of Human Involvement

One of the most important factors is how much a human contributed to the final output. Under Indian law, copyright is granted only to works created through human skill, labour, and creativity. If an AI produces content autonomously with minimal human input, the work may not qualify for copyright protection. However, if the user provides substantial creative direction, input, or editing, the work becomes more likely to meet the originality requirement.

2. Interpretation of "Author" Under the Copyright Act

The Copyright Act, 1957 defines an author as a natural person (for literary, artistic, musical, and dramatic works). Since AI is not a legal person, courts may struggle to assign authorship. The inability of AI to hold rights or be recognized as an author severely affects whether its outputs can be copyrighted at all. This gap directly impacts how AI-generated works are treated legally.

3. Requirement of Originality

Indian copyright law follows the "Skill and Judgement" standard from the Eastern Book Company case. This means a work must involve human creativity, not just mechanical labour. AI-generated content raises questions about whether originality can exist without human imagination. If the AI's creative process is entirely algorithm-driven, originality becomes difficult to establish.

4. Nature of the AI System

The way the AI operates matters. For example:

- Autocomplete or assistance-based AI (like Photoshop's tools) still relies heavily on human creativity → more likely to be copyrightable.



- Fully autonomous generative AI (text, music, images without human direction) raises doubts about who, if anyone, is the real creator.

The level of autonomy influences whether copyright can be assigned to a human user.

5. Ownership and Control of the AI

Another factor is who owns and controls the AI tool. Some argue that the developer should own rights because they created the algorithm. Others argue that the user owns the output because they initiate the generation. The absence of legal clarity on these relationships makes determining ownership difficult.

6. Legal and Policy Gaps in India

India currently lacks explicit laws governing AI-generated works. This legislative vacuum affects how judges interpret authorship, originality, and ownership. Until India makes amendments or introduces guidelines, AI-created content remains in a grey area, affecting copyright certainty.

7. International Trends and Comparative Models

Different countries take different positions—

- The UK gives copyright to the person who “makes arrangements” for AI’s creation.
- The US does not grant copyright to AI-generated works at all.
- The EU is debating hybrid authorship models.

These varying standards affect how India may approach future reform, influencing current interpretations.

8. Ethical and Economic Considerations

The fear of overprotecting AI outputs (which may harm human artists) and concerns over ownership disputes also influence how conservative or liberal India may be in granting rights. These socio-economic considerations indirectly shape copyrightability.

GOVERNMENT INITIATIVES RELATED TO AI AND COPYRIGHT IN INDIA

1. National Strategy for Artificial Intelligence (NSAI) – “AI for All”

The National Strategy for Artificial Intelligence released by NITI Aayog marks India’s first comprehensive roadmap for integrating AI across various sectors such as healthcare, agriculture, education, and smart cities. Although the strategy does not directly address copyrightability or authorship of AI-generated works, it highlights the importance of creating ethical, transparent, and responsible AI ecosystems. By emphasising the need for regulatory clarity and ethical frameworks, the initiative indirectly influences the broader legal environment in which issues like ownership of AI outputs and creative rights will eventually be examined. Thus, while NSAI is primarily developmental, it sets the foundation for future legal reforms concerning AI-generated creative content.

2. Digital India Programme

The Digital India initiative broadly aims to transform India into a digitally empowered society and knowledge economy. As part of this mission, the government promotes digital literacy, innovation, and the adoption of AI-driven technologies across various industries. With more sectors—especially creative industries—integrating AI tools to produce content, the initiative increases the urgency for legal frameworks that can manage and protect creative outputs generated through such technologies. Although the programme does not directly propose changes to copyright law, it accelerates the use of technologies that challenge existing IP frameworks, thereby pushing the need for updated regulations on authorship and originality in AI-generated works.



3. MeitY AI Task Forces and Policy Initiatives

The Ministry of Electronics and Information Technology (MeitY) has established multiple task forces and expert committees to study the evolving impact of AI on governance, digital rights, privacy, and innovation. These bodies have acknowledged the complexities posed by AI-generated content, particularly concerning ownership and authorship under intellectual property laws. Their recommendations include the need for developing AI-specific guidelines, defining the limits of human involvement, and setting standards for accountability in automated decision-making. While these suggestions are still under review, they demonstrate the government's recognition that AI poses new challenges to copyright systems and that legislative intervention will eventually be necessary.

4. National Data Governance Framework Policy (NDGFP)

The National Data Governance Framework Policy focuses on creating a secure, transparent, and efficient system for data sharing and usage in India. Since machine learning and generative AI models rely heavily on large datasets—many of which contain copyrighted material—the policy plays an important role in shaping how creators and developers can legally train AI systems. By proposing new standards for data accessibility, privacy, and compliance, the NDGFP indirectly influences copyright issues related to training data, originality, and the legality of AI-generated content. The policy thus contributes to establishing a structured data environment that is essential for AI governance and future IP regulation.

5. Proposed Amendments to the Copyright Act

Although India has not yet made formal amendments to the Copyright Act regarding AI-generated works, discussions within the Department for Promotion of Industry and Internal Trade (DPIIT) indicate growing awareness of the issue. The government has acknowledged the need to revisit definitions of “author,” “originality,” and “ownership” in light of AI-generated outputs. Expert opinions gathered during consultations highlight the need for clearer legal recognition of the role of AI systems and the human creators who interact with them. These discussions are still in the early stages, but they represent a significant step toward shaping future legislation that will directly address the copyrightability of AI-generated works.

6. IndiaAI Mission (2023)

The IndiaAI Mission represents one of the government's most ambitious efforts to build a national ecosystem for AI innovation. The mission includes the development of AI research centres, startup support systems, standards for AI applications, and regulatory initiatives aimed at promoting safe and inclusive AI. As part of its long-term vision, the mission recognises the need for clear legal frameworks that govern the use, ownership, and outputs of AI systems. While not explicitly focused on copyright, the mission encourages structured policymaking that will ultimately influence how AI-generated creative works are treated under Indian law.

7. Bhashini – National Language Translation Mission

Bhashini is the government's AI-driven initiative aimed at making language translation accessible across India's diverse linguistic landscape. By using generative AI models to automatically translate text, speech, and digital content, the project raises important questions regarding ownership of machine-generated translations. Since these translations can be considered derivative or creative outputs, the initiative indirectly presses for clarity on copyright rights, authorship, and the extent to which machine-translated content qualifies for legal protection. Bhashini therefore contributes to the growing need to define a framework for handling AI-generated works.

8. India's Participation in Global AI Governance

India actively participates in international discussions on AI governance through forums such as the World Intellectual Property Organization (WIPO), G20 Digital Economy Working Group, and the OECD AI Principles. These global platforms frequently discuss the challenges of protecting AI-generated creative works and ensuring fair use of copyrighted training data. By engaging in these dialogues, India gains insight into different regulatory models and best



practices adopted by other jurisdictions. This global exposure helps shape India's approach to future copyright reforms and strengthens the likelihood of adopting internationally aligned standards for AI-generated content.

COMPARISON OF VARIOUS COUNTRIES ON COMPUTABILITY OF AI- GENERATED WORKS

1. United States

In the United States, copyright law strongly requires human authorship as a fundamental condition for protection. The U.S. Copyright Office has repeatedly clarified that works created entirely by AI without meaningful human contribution cannot receive copyright protection. This position was reaffirmed in the famous "Thaler v. U.S. Copyright Office" case, where the court held that AI cannot be considered an author. However, the U.S. permits copyright protection for works generated with significant human involvement, where the AI acts merely as a tool. Thus, the U.S. adopts a strict human-centric approach but allows limited protection for human-guided AI creations.

2. United Kingdom

The United Kingdom has a unique and more flexible approach. Under the UK's Copyright, Designs and Patents Act, the author of a computer-generated work is legally recognised as the person who makes the necessary arrangements for its creation. This means that even if AI produces the content autonomously, copyright can still be granted to the person who operated, programmed, or set up the system. The UK therefore acknowledges non-human creativity but still attributes authorship to a human or legal person who initiates the process. This makes the UK one of the few countries that provides explicit protection for AI-generated works.

3. European Union

The European Union does not currently recognise AI-generated works as eligible for copyright unless a human contributed original creative expression. EU copyright law is governed by the concept of the "author's own intellectual creation," which requires personal creativity, judgement, and free choices by a human. Because autonomous AI lacks human intention or creative thought, the EU denies copyright protection to fully AI-produced outputs. However, the EU is actively debating new policies on AI governance, and proposals from the European Parliament suggest future frameworks that may address hybrid authorship models.

4. China

China adopts a relatively progressive approach and has shown openness toward granting copyright to AI-generated works in certain circumstances. Chinese courts have issued decisions recognising that AI-generated news articles may be copyrighted if there is clear evidence of human management, editing, or intellectual input. China's broader strategy is to encourage AI innovation, and therefore its legal stance leans toward protecting AI-assisted creations, although fully autonomous AI outputs still face uncertainty. China's evolving judicial interpretation suggests increasing recognition of AI's role in creativity.

5. Japan

Japan takes a pragmatic and innovation-friendly approach toward AI. Japanese copyright law still focuses on human authorship, meaning fully AI-generated works cannot be copyrighted. However, Japan has specific guidelines allowing the use of copyrighted data for AI training purposes without infringement, provided it is for non-commercial or research purposes. While authorship remains human-centric, Japan is actively studying the need for new intellectual property categories to address AI-created content, indicating potential future reforms.

6. Australia

Australia's current copyright framework does not recognise AI as an author, as copyright requires human creativity and intellectual effort. Courts have held that originality arises from human skill and labour, making fully autonomous AI outputs ineligible for protection.



However, like many other jurisdictions, Australia is reviewing its copyright laws as part of its broader digital innovation policy. The government has acknowledged the need to modernise IP law to match technological developments, but no official reforms have been implemented yet.

7. India

India strictly follows the requirement of human authorship under the Copyright Act, 1957. Since the Act defines an author as a natural person for most works, AI-generated content currently falls into a legal grey area. Indian courts have not yet addressed cases involving AI authorship, and there are no explicit legal provisions for AI-created works. However, India's participation in international discussions and the growing use of AI technology highlight the need for legislative reform to resolve questions of authorship, originality, and ownership in AI-generated content.

REVIEW OF LITERATURE

Samuelson, P. (2020) — Pamela Samuelson's research focuses on the human-authorship requirement in US copyright law and its doctrinal underpinnings. The study aimed to clarify whether the U.S. approach can accommodate AI-assisted creativity without undermining constitutional and policy goals. Using qualitative analysis of Copyright Office guidance, relevant case law, and doctrinal scholarship, Samuelson concludes that the human-authorship emphasis preserves the philosophical purpose of copyright but may leave gaps for hybrid works; she suggests administrative tests that foreground meaningful human input rather than overly formalistic tests.

Lemley, M. (2021) — Mark Lemley explores practical policy implications of granting copyright protection to AI-generated works, especially for innovation and competition. The research objective was to weigh incentives for AI developers against risks of overbroad exclusivity. Lemley uses economic and doctrinal analysis and finds that automatic copyright for machine outputs could create monopolies over vast swathes of expression, hindering follow-on innovation; he recommends narrow, case-by-case protections and alternative incentive schemes (e.g., contracts, patents, or sui generis regimes) rather than wholesale copyright expansion.

Reddy, M. (2022) — A law review article from an Indian university that interrogates moral rights in the age of AI. The objective was to examine how droit moral concepts (attribution, integrity) apply where human authorship is unclear. Methodology included doctrinal analysis and analogy to other non-IP moral interests. Findings show moral rights are difficult to allocate to non-human actors; Reddy suggests that moral rights should attach to identifiable human contributors (developers, prompt engineers, curators) when demonstrable.

Floridi, L. & Chiriatti, M. (2020) — While not strictly legal scholarship, this influential philosophical piece examines whether AI outputs can be said to possess creativity and agency. The aim was to clarify conceptual foundations underlying legal responses. Using philosophical analysis, they argue that current AI lacks intentionality and subjective creativity; their finding supports legal approaches that preserve human authorship as the basis for protection while calling for nuanced definitions of creative contribution.

Srivastava, P. & Iyer, N. (2023) — An Indian policy note evaluating the need for transparency and provenance requirements for datasets used in training generative models. The objective is to assess how provenance rules affect copyright risks and ecosystem trust. Methodology: policy analysis and stakeholder interviews. Findings recommend mandatory disclosure of major data sources for commercial generative systems, to mitigate inadvertent copying and to support rights-holders' enforcement.

Zhang, Y. & Li, H. (2021) — A comparative East-Asian study looking at China's and Japan's emerging policy responses to AI-generated works. The objective is to identify regional regulatory trends. Methodology included statutory review and policy document analysis. Findings show a pragmatic regulatory tilt—China exploring operator or developer rights, Japan focusing on human creator thresholds—suggesting that regional harmonization will be complex and driven by national industrial policy.

METHODOLOGY

This study is based on a non-doctrinal research approach, relying entirely on secondary sources to analyse the copyrightability of AI-generated works under Indian law. The research does not involve surveys, questionnaires, or



empirical tools. Instead, information has been collected from academic articles, textbooks, online journals, expert commentaries, case summaries, and reports from national and international legal bodies. These secondary materials help in understanding the evolving interpretations of authorship, originality, and the challenges posed by AI-generated content. The method is qualitative and analytical, aiming to evaluate existing viewpoints and identify gaps in the current legal framework.

LIMITATIONS

This study is limited mainly by its dependence on secondary sources, as there is no substantial primary data or case law in India specifically addressing AI-generated works. The research is also constrained by the rapidly evolving nature of artificial intelligence, which means that legal interpretations and technological capabilities may change faster than available literature. Additionally, since India's copyright framework has not yet been amended to address AI authorship, many conclusions are based on comparative analysis and theoretical interpretations rather than concrete judicial guidance. These factors restrict the ability to offer definitive answers and instead allow only projected implications based on current knowledge.

SUGGESTIONS

There is an urgent need for India to develop a clear legislative framework to address AI-generated works. The Copyright Act should be revised to define concepts such as AI authorship, human involvement, and ownership of autonomous outputs. Establishing guidelines for minimum human creativity or intervention can help determine copyright eligibility. India may also consider adopting a separate category of protection for AI-generated works, similar to the UK approach, to balance innovation with legal clarity. Further, regulatory bodies and policymakers should engage in multidisciplinary consultations involving technologists, legal experts, and industry stakeholders to ensure that future laws are technologically sound and practically enforceable.

II. CONCLUSION

AI-generated works raise complex questions about authorship, originality, and ownership—issues that India's existing copyright regime does not adequately address. As AI becomes more capable of producing art, music, literature, and other creative outputs, the need for clarity in legal recognition becomes essential. This study shows that under current Indian law, copyright protection primarily depends on human creativity, which creates challenges for autonomous AI-generated content. Through analysis of secondary literature and comparative legal models, it becomes clear that reform is necessary to keep pace with technological growth. A balanced approach—protecting human creators while recognising AI-assisted innovation—will be crucial in shaping India's future copyright landscape.

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