
RETHINKING AUTHORSHIP IN THE AGE OF ARTIFICIAL INTELLIGENCE: A COMPARATIVE ANALYSIS OF COPYRIGHT LAW IN INDIA, THE UNITED STATES, AND THE EUROPEAN UNION

Kartavi Kansara, CVM University

ABSTRACT

The rapid advancement of artificial intelligence, particularly generative AI, has disrupted traditional copyright law by challenging the foundational concept of authorship. This paper examines how existing legal frameworks in India, the United States, and the European Union address the question of authorship in the context of AI-generated works. It distinguishes between AI-assisted and fully autonomous AI-generated creations, highlighting the varying degrees of human involvement and their implications for copyright protection.

Adopting a doctrinal and comparative approach, the study analyzes statutory provisions, judicial decisions, and policy guidelines across the three jurisdictions. It finds that while India offers a flexible but ambiguous attribution model, the United States maintains a strict human authorship requirement, and the European Union adopts a moderately flexible yet uncertain standard based on the “author’s own intellectual creation.” Despite these differences, all three systems remain rooted in human-centric notions of creativity and struggle to accommodate works generated with minimal or no human input.

The paper identifies key legal challenges, including lack of uniformity, over-reliance on human authorship, inadequacy in addressing fully autonomous AI, and uncertainty in ownership and enforcement. In response, it argues for a rethinking of traditional authorship concepts and explores potential reform models, including modification of existing doctrines, introduction of sui generis protection, and adoption of hybrid frameworks based on degrees of human involvement.

The study concludes that without timely and balanced reform, copyright law risks becoming increasingly disconnected from technological realities. A more adaptive and coherent legal framework is essential to ensure that the law continues to promote creativity, innovation, and legal certainty in the age of artificial intelligence.

Keywords: Artificial Intelligence (AI); AI-Generated Works; Copyright Law; Authorship; Human Authorship Doctrine; Originality; Comparative Law; India; United States; European Union; Generative AI; Intellectual Property Law.

1. Introduction

The rise of artificial intelligence (AI), especially generative AI systems that can create text, images, music, and various other forms of creative work, has profoundly impacted conventional legal structures surrounding copyright. Central to copyright legislation is the idea of authorship, which has traditionally been viewed as a human-centered concept linked to originality, creativity, and intellectual labor¹. Nonetheless, works produced by AI challenge this principle by prompting an essential question: when a machine generates creative content with little to no human involvement, who, if anyone, deserves to be acknowledged as the creator?

1.1 Background

Although the legal treatment of authorship has changed in tandem with technology, it is nevertheless firmly anchored in the notion of human invention. The Copyright Act, 1957 in India provides a statutory workaround for "computer-generated works" by attributing authorship to the individual who creates the work. As seen by court rulings and U.S. Copyright Office policy pronouncements², the United States, on the other hand, rigorously upholds the idea of human authorship, denying protection to works that lack human creative contribution³. The requirement of "the author's own intellectual production⁴," which indirectly calls for human involvement, is emphasized by the European Union through its jurisprudence. These disparate but complementary methods highlight the absence of a logical and widely recognized framework for handling AI-generated content.

1.2 Significance of Study

The issue of authorship is now more than just a theoretical concern due to the creative sectors' increasing reliance on AI, including publishing, entertainment, marketing, and design. It

¹ *Feist Publications, Inc v Rural Telephone Service Co* 499 US 340 (1991).

² US Copyright Office, *Copyright Registration Guidance: Works Containing AI-Generated Material* (2023) <https://www.copyright.gov> accessed 1 July 2026.

³ *Naruto v Slater* 888 F.3d 418 (9th Cir 2018).

⁴ *Infopaq International A/S v Danske Dagblades Forening* (C-5/08) [2009] ECR I-6569.

directly affects ownership, licensing, rights enforcement, and financial incentives for both AI developers and human creators. Uncertainty about authorship can result in disagreements over the distribution of rights, deter investment in innovative technology, and even jeopardize the harmony between protection and innovation that copyright law aims to preserve. In order to maintain legal certainty and equity in the digital economy, it is imperative to address these uncertainties as AI develops.

1.3 Research Questions

This paper aims to answer the following main query:

How is the concept of authorship in AI-generated works conceptualized and applied by the copyright frameworks of the United States, India, and the European Union, and how well do these methods handle the difficulties presented by generative AI?

1.4 Statement of Argument

This study contends that because current copyright laws in the US, EU, and India continue to rely on human-centric conceptions of authorship, they are essentially insufficient to handle the problems presented by AI-generated works. Although every jurisdiction has made an effort to modify its legal system in response to technological advancements, these modifications are nonetheless disjointed and conceptually challenging. Therefore, in order to bring copyright law into line with the realities of AI-driven innovation, authorship must be rethought possibly through new legal categories or updated standards.

1.5 Literature Review

1.5.1 What others say

With the emergence of generative AI systems in recent years, the issue of authorship in AI-generated works has garnered considerable scholarly attention. A prevalent body of scholarly writing highlights the importance of human innovation as the cornerstone of copyright law. According to scholars like *Feist Publications, Inc. v. Rural Telephone Service Co.* (as understood in U.S. jurisprudence) and others expanding on this theory, originality must result from human intellectual effort⁵, removing works created only by AI from protection. Through

⁵ *Feist Publications* (n 1).

its guidelines, the U.S. Copyright Office has reaffirmed this stance⁶, often rejecting copyright registration for works that don't have enough human authorship.

On the other hand, other researchers have looked into more adaptable methods. Section 2(d)(vi) of the Copyright Act, 1957⁷, which grants authorship of computer-generated works to the person who causes the work to be made, has drawn attention from observers in the Indian context. Although this option was initially intended for previous forms of computer-assisted creativity, it has been seen as a practical approach that indirectly allows AI-generated works. In a similar vein, some European academics see the "author's own intellectual production" norm as potentially flexible, implying that human contribution, selection, or arrangement may be sufficient to satisfy the originality requirement.

Recognizing novel types of authorship or legal identity is supported by another school of thought. For the sake of copyright attribution, some academics suggest giving AI creators and users restricted rights or even treating AI systems as quasi-legal entities. Others advocate for a *sui generis* rule, apart from conventional copyright regimes, that would explicitly regulate works created by AI⁸. These viewpoints show a growing recognition that current ideologies might not fully account for technological reality.

1.5.2 Where they fall short

Even with the depth of current research, there are still a number of gaps and restrictions. First, a large portion of the literature is still jurisdiction-specific, concentrating solely on the US, the EU, or India. This disjointed approach hinders the creation of cohesive international standards by failing to offer a thorough comparative grasp of how various legal systems handle the same conceptual difficulty.

Second, many academics either strictly uphold the conventional human authorship criterion or, on the other hand, support drastic changes like giving AI legal personhood without adequately considering the doctrinal and practical ramifications of these stances. While the latter creates difficult legal and ethical issues that are yet unresolved, the former approach runs the risk of making copyright law outdated in the face of technological advancement.

⁶ US Copyright Office (n 3).

⁷ Copyright Act 1957, s 2(d)(vi).

⁸ Ryan Abbott, *The Reasonable Robot: Artificial Intelligence and the Law* (CUP 2020).

Third, given that contemporary generative AI systems function with a high degree of autonomy and unpredictability, the dependence on current legal provisions such as India's "person who causes the work to be made" standard has not received enough criticism. In a similar vein, attempts to stretch established doctrines like the EU's originality standard often result in conceptual uncertainty rather than doctrinal clarity.

Lastly, there is a lack of agreement on a reasonable and workable structure that simultaneously guarantees legal certainty, promotes technology progress, and safeguards human creativity. By providing a comparative analysis of India, the US, and the EU and critically assessing the suitability of each country's authorship policies in the era of artificial intelligence, this research aims to remedy these deficiencies.

In light of the above scholarly discourse and identified gaps, this paper now proceeds to examine the conceptual foundations of authorship, followed by a comparative analysis of legal frameworks across India, the United States, and the European Union.

1.6 Research Methodology

In order to investigate the idea of authorship in AI-generated works in three jurisdictions India, the US, and the EU this study uses a doctrinal and comparative legal methodology. Secondary sources, such as statutes, case law, policy papers, and academic commentary, serve as the study's main foundation.

The doctrinal approach entails a thorough examination of pertinent copyright laws, including the U.S. Copyright Act of 1976, the Copyright Act of 1957 (India), and important EU directives and case law. To comprehend how current legal frameworks view authorship, judicial rulings and administrative guidelines especially those interpreting the requirement of human authorship and originality are thoroughly investigated.

To find parallels, variances, and gaps between the three jurisdictions, the comparative technique is utilized. The study assesses the suitability and drawbacks of each strategy for dealing with AI-generated works by contrasting the European Union's "author's own intellectual invention" criterion, the United States' stringent human authorship requirement, and India's statutory attribution model.

In order to objectively evaluate suggested changes, such as the potential for sui generis regimes

or alternative models of rights allocation, the research also connects with academic literature and policy discussions. A thorough grasp of the changing legal landscape is made possible by this combination of doctrinal research and comparative evaluation, which also aids in the creation of well-reasoned reform proposals.

2. Conceptual Framework: Understanding Authorship in Copyright Law

Examining the fundamental ideas of authorship in copyright law is crucial before tackling the difficulties presented by artificial intelligence. The foundation of copyright protection in all jurisdictions is made up of several ideas: authorship, originality, human creativity, and the connection between authorship, ownership, and rights.

A key idea in copyright law is authorship, which refers to the person who produces a work and is thus qualified to receive protection and legal recognition. The term "author" has historically been believed to refer to a natural person who uses their mind to create creative works. This approach is firmly based on the notion that copyright is meant to honor human ingenuity and hard work. The fundamental presumption of a human author persists across legal systems, even though certain countries, like India, have broadened this concept by statutory measures to include the person who causes a work to be made in the context of computer-generated works.

2.1 Standard of Originality

In addition to being a threshold criterion for writer recognition, originality is a prerequisite for copyright protection. Different legal systems have different requirements for uniqueness. According to *Feist Publications, Inc. v. Rural Telephone Service Co.*, originality in the US demands a minimal level of inventiveness and independent production. The European Union defines the standard as the "author's own intellectual production"⁹, highlighting the author's individuality. Although it does not specifically define originality, Indian copyright law takes a similar stance by demanding the use of effort, skill, and judgment¹⁰. Despite these differences, one thing that all jurisdictions have in common is the intimate relationship between originality and human intellectual effort.

2.2 The Need for Human Creativity

The necessity of human innovation is a basic tenet of copyright law. Copyright protection is

⁹ *Painer v Standard Verlags GmbH* (C-145/10) EU:C:2011:798.

¹⁰ *Eastern Book Company v D B Modak* (2008) 1 SCC 1.

meant for works that originate from human mind¹¹, as courts and legal authorities have repeatedly stressed. In the US, where the concept of human authorship precludes works produced without human interaction, this criterion is very clear. In a similar vein, human participation is implicitly required by the European Union's emphasis on "intellectual creation." The expectation of human participation persists even though India has a legal method for attributing authorship in computer-generated works. Therefore, the need for human creativity continues to be a major barrier to granting AI-generated works copyright protection.

2.3 Authorship, Ownership, and Rights Relationship

Ownership and the collection of rights granted by copyright law are inextricably related to authorship. Unless a regulation or contract specifies otherwise, the author is typically considered the original owner of copyright. Along with moral rights like the right to attribution and integrity in some jurisdictions, ownership grants the right to replicate, distribute, adapt, and publicly discuss the work. Therefore, identifying an author is essential since it establishes who is in charge of the moral and financial rights related to a work. This connection becomes problematic when authorship is ambiguous or disputed, as in the case of AI-generated works, resulting in ambiguity in the distribution and enforcement of rights.

In conclusion, the human-centric concepts of creativity, originality, and legal entitlement form the foundation of the conventional framework of authorship in copyright law. In later portions of this work, these fundamental ideas offer the backdrop needed to analyze the disruptions brought about by artificial intelligence.

3. AI-Generated Works: Nature and Legal Challenges

Traditional copyright doctrines are being challenged by a new category of creative outputs brought about by the development of artificial intelligence. The nature of AI-generated works, the level of human input in their development, and the particular legal challenges they pose must all be distinguished in order to evaluate their legal significance.

3.1 AI-Generated Works: What Are They? (AI-Assisted Works vs. Generative AI)

Text, photos, music, and audiovisual outputs created by artificial intelligence systems are

¹¹ Copyright Act 1957, s 17

referred to as AI-generated works¹². These pieces can be roughly divided into two groups: AI-generated (or autonomous) works and AI-assisted works.

Works where a human author use AI as a tool to support the creative process are known as AI-assisted works. In these situations, the human maintains significant control over the final product through creative decision-making, thorough input, and judgment in arrangement and selection. In this case, AI works similarly to more conventional instruments like software or cameras.

AI-generated works, on the other hand, are produced with little to no direct human participation beyond initial prompts or instructions. This is especially true of works made utilizing generative AI systems. These algorithms, which have been trained on enormous datasets, produce results on their own, frequently in surprising ways that cannot be easily linked to particular human creative choices. This distinction is important since it directly affects authorship and copyright protection eligibility.

3.2 Human Involvement Levels

In AI-generated works, human input plays a variety of roles. At one extreme are pieces in which people have a great deal of creative influence through the creation of prompts, editing choices, and output refinement. On the other end of the spectrum are works that are produced nearly entirely by AI systems with little human guidance; the user's involvement is restricted to starting the process.

Different levels of collaboration, such as post-generation editing, selection among generated products, and iterative prodding, fall between these extremes. Determining when human activity is sufficient to qualify for authorship is an issue for copyright law. There is uncertainty in situations when human and computer contributions are combined because current legal frameworks lack precise threshold¹³s.

3.3 Important Legal Issues

The growth of AI-generated works raises a number of important legal issues that are difficult

¹² Ryan Abbott (n 8).

¹³ US Copyright Office (n 3).

for current copyright regimes to handle.

First, the fundamental necessity of authorship is directly challenged by the problem of the lack of a human author. Since the majority of copyright laws are based on human creativity, works created by AI systems on their own might not be covered at all. This raises the possibility of a class of works that, despite their cultural and economic significance, are not legally protected.

Second, there is a great deal of ownership ambiguity in works created by AI. It becomes challenging to identify who, if anyone, is the owner of the work's rights when there isn't a distinct creator. The user who gave the prompt, the AI system's creator, and the organization that trained or implemented the model are just a few of the stakeholders who may make conflicting assertions. These conflicting interests are not sufficiently resolved by current legal provisions.

Third, when it comes to AI-generated content, the issue of accountability gets more complicated¹⁴. Issues such as copyright infringement, plagiarism, or unlawful use of protected material raise the question of who should bear legal responsibility the user, the developer, or the AI system itself. Enforcement and regulatory control are made more difficult by the ambiguity surrounding the assignment of obligation.

All things considered, AI-generated works challenge fundamental presumptions about authorship, ownership, and responsibility, upending the established legal framework. These issues call for a reevaluation of current doctrines, which will be examined in the following sections through a comparison of various jurisdictions.

4. Jurisdictional Analysis

4.1 India

In the context of non-traditional works, Indian copyright law offers a distinctive statutory approach to authorship. The author of a "computer-generated work" is "the person who causes the work to be made," according to Section 2(d)(vi)¹⁵ of the Copyright Act, 1957. This clause provides a legal fiction that credits authorship even in the absence of direct human creativity

¹⁴ WIPO, *WIPO Conversation on Intellectual Property and Artificial Intelligence* (2023).

¹⁵ Copyright Act 1957, s 2(d)(vi).

in the final product. It was created to address earlier kinds of computer-assisted production.

However, there are substantial interpretational issues when applying this clause to contemporary generative AI systems. In the context of AI, the term "person who causes the work" is intrinsically ambiguous. It's unclear if this refers to the person who supplies the training data, the developer who creates the AI system, or the user who enters prompts.

In contrast to previous software tools, generative AI systems function with a high degree of autonomy, making it challenging to pinpoint a single person who can be considered to have "caused" the work in a significant way.

Furthermore, there is a great deal of uncertainty because Indian law has not yet been judicially tested in the context of sophisticated AI-generated works. Additionally, the clause applies a one-size-fits-all solution to a very complex problem by failing to differentiate between different degrees of human engagement. Because of this, even though Section 2(d)(vi) seems adaptable on the surface, it might not be sufficient to handle the complexity of modern AI systems.

4.2 United States

Based on the theory of human authorship, the United States takes a rigid and well-established stance on authorship. Only works produced by humans are protected by copyright; this idea is continuously upheld by court rulings and administrative procedures.

In *Feist Publications*¹⁶, Inc. v. Rural Telephone Service Co., the U.S. Supreme Court stressed that uniqueness necessitates autonomous invention and a minimal level of inventiveness, which is implicitly linked to human labor. More specifically, the Ninth Circuit upheld the human-centric basis of authorship in *Naruto v. Slater*¹⁷ by ruling that non-human entities lack standing to assert copyright.

The U.S. Copyright Office (USCO)¹⁸ has provided additional clarification on this viewpoint, especially in its 2023 advice on works containing AI-generated material. According to the USCO, works created solely by AI without any creative input from humans are not protected by copyright. It does, however, permit protection for sections of works in which a human author

¹⁶ *Feist Publications* (n 1).

¹⁷ *Naruto v Slater* (n 2).

¹⁸ US Copyright Office (n 3).

has used creative control, such as when choosing, organizing, or altering content produced by artificial intelligence.

Because of this, the United States essentially rejects entirely AI-generated works as subject matter that can be protected by copyright, while allowing limited protection for AI-assisted inventions. Although this method offers doctrinal clarity, it might not protect an increasing number of economically significant works.

4.3 European Union

The Court of Justice of the European Union (CJEU) adopted the idea of "the author's own intellectual invention," which is how the EU views authorship. This criteria implicitly calls for human engagement by emphasizing that a work must represent the author's personality and creative decisions.

The CJEU determined that originality exists where the work is the product of the author's intellectual creation in *Infopaq*¹⁹ International A/S v. Danske Dagblades Forening (C-5/08). This was further explained in *Painer*²⁰ v. Standard Verlags GmbH (C-145/10), where the Court stressed the significance of the author's free and creative decisions as well as the expression of their unique touch.

The focus on human intellectual creativity implies that fully autonomous AI-generated content would not be eligible for protection, even though EU law does not specifically address AI-generated works. Nonetheless, the EU framework permits protection in cases where a human has adequate creative control over the outcome, such as through input selection or post-generation editing, just like in the US.

Thus, the EU approach offers some interpretive latitude while upholding a human-centric criterion. However, the lack of clear legislative or judicial guidelines on AI-generated works raises questions, especially where there is little human intervention.

In conclusion, all three jurisdictions confront substantial obstacles when it comes to dealing with the realities of AI-generated works, even while the United States and the European Union uphold human-centric philosophies and India makes an effort to statutorily accept non-

¹⁹ *Infopaq* (n 4).

²⁰ *Painer* (n 10).

traditional forms of writing. In the following part, a more thorough comparison analysis is based on these distinctions and constraints.

5. Comparative Evaluation

When it comes to authorship in the context of AI-generated works, a comparison of the US, EU, and India shows both similarities and differences. Although human-centric ideas of creativity continue to be the foundation of all three jurisdictions, their levels of adaptability to technology improvements vary.

5.1 Comparative Overview

Aspect	India	United States	European Union
Authorship Standard	“Person who causes the work to be created” (statutory fiction)	Strict human authorship requirement	“Author’s own intellectual creation”
Recognition of AI-Generated Works	Indirectly possible through attribution	Not recognized if fully AI-generated	Not explicitly recognized; likely excluded
Human Involvement Requirement	अस्पष्ट (unclear threshold)	Mandatory and explicit	Implicit but necessary
Legal Certainty	Low (untested in AI context)	High (clear rejection policy)	Moderate (interpretive flexibility)
Flexibility	High in theory, low in practice	Low	Moderate
Approach Type	Statutory workaround	Doctrinal rigidity	Judicial interpretation

5.2 Critical Evaluation

The emphasis on human-centric authorship, a fundamental tenet²¹ of copyright law, is a significant commonality throughout all three jurisdictions. None of these theories completely

²¹ Andres Guadamuz, ‘Artificial Intelligence and Copyright’ (2017) 27 *WIPO Journal* 1.

acknowledge AI as an autonomous author, despite advances in technology. When applied to autonomous AI systems, this reveals a structural restriction but also indicates a larger moral commitment to rewarding human ingenuity.

Because of its statutory provision under Section 2(d)(vi), India's approach initially seems to be the most flexible. Indian law appears to offer a way to incorporate AI-generated works into the copyright framework by assigning authorship to the "person who causes the work to be created." This adaptability is mainly surface-level, though. The clause's ambiguity makes it difficult to read, and it was not created with contemporary generative AI in mind. Legal certainty is undermined because it is unclear if the relevant "person" is the user, developer, or another party.

The United States, on the other hand, takes a firm but unambiguous stance. The U.S. framework offers conceptual clarity and certainty by adamantly denying copyright protection for works without human authorship. The guidelines provided by the U.S. Copyright Office guarantees uniformity in application and minimizes uncertainty in enforcement. But this inflexibility has a price: it prevents a quickly expanding class of AI-generated works from being protected, which may deter investment and innovation in innovative AI technology.

By relying on the notion of the "author's own intellectual work" as established by CJEU jurisprudence, the European Union takes a middle ground. This guideline permits some latitude in interpretation, especially where there is some human participation. Though to a lesser extent, the lack of clear regulations pertaining to AI-generated works generates confusion like to that present in India. The EU's dependence on judicial interpretation rather than clear legislation could result in uneven implementation across its member states.

Comparatively speaking, no jurisdiction provides a completely suitable solution. The United States' strategy lacks adaptability, the European Union's strategy lacks clear direction, and India's strategy is unclear. The reality of AI-driven creativity and conventional legal standards are difficult for all three systems to reconcile.

The lack of a progressive framework²² that takes into consideration different degrees of human engagement is a crucial weakness shared by all jurisdictions. Without taking into account the

²² European Parliament, *Intellectual Property Rights for the Development of Artificial Intelligence Technologies* (2020).

complex range of human-AI cooperation, current models frequently take binary stances, either accepting or rejecting authorship. This leads to either under-inclusion (as observed in the U.S. approach) or over-inclusion (as may happen under India's broad attribution model).

In the end, the comparative research emphasizes how urgently a more flexible and balanced legal system is needed. While avoiding the ethical and conceptual difficulties of giving AI systems complete authorship, such a framework must go beyond strict human-centric definitions. Building on these observations, the next section identifies significant legislative gaps and suggests possible remedies.

5.3 Which System Is More Flexible?

Because of its statutory clause attributing authorship to the "person who causes the work to be generated," India seems to be the most flexible of the three jurisdictions in principle. This formulation provides an adaptable way to incorporate AI-generated works into the copyright framework. However, this flexibility is compromised by ambiguity and a dearth of judicial interpretation, which restricts its usefulness.

The European Union is an example of a system that is somewhat flexible. Its emphasis on the "author's own intellectual production" criteria permits flexibility in interpretation, especially where there is some human input. However, its capacity to provide reliable and consistent results is limited by the lack of clear legislation or judicial guidance on AI-generated works.

The United States, on the other hand, is the least flexible. Although it offers clarity, its rigid commitment to the human authorship idea makes it difficult to identify works created by artificial intelligence. Although this guarantees conceptual coherence, it is insufficient in addressing technological advancements.

As a result, the United States continues to be the most inflexible, the European Union provides a more balanced though still unfinished approach, and India is ranked highest in theoretical adaptability.

5.4 Useful Consequences

There are important real-world repercussions from the various tactics used by different jurisdictions. Because creators and developers cannot get exclusive rights over outputs, the loss

of copyright protection to completely AI-generated works in the US may deter investment in AI-driven creation. This might encourage innovation in areas with more adaptable legal systems.

In India, ownership and enforcement are unclear because to the ambiguity surrounding the "person who causes the labor." Conflicts between users, developers, and middlemen could result from this, which would ultimately increase litigation and erode business confidence.

Unpredictability arises from the European Union's lack of clear regulations, especially when it comes to cross-border transactions within the internal market. Enforcement and licensing may be made more difficult by differences in interpretation among member nations.

All things considered, the lack of a unified and transparent legal framework hinders innovation, makes the distribution of rights more difficult, and raises transaction costs. These real-world difficulties highlight the necessity of change that guarantees legal stability and flexibility in the era of artificial intelligence.

6. Important Legal Concerns and Deficits

Significant structural flaws in the current copyright systems have been revealed by the quick growth of artificial intelligence. While countries like the United States, the European Union, and India make an effort to adapt to technology advancements, their methods show common flaws that compromise the efficacy and certainty of the law. The fundamental difficulties in applying conventional copyright principles to AI-generated works are highlighted by the following problems.

6.1 Absence of Consistency

The lack of a consistent legal approach across jurisdictions²³ is one of the most urgent problems. The comparative analysis shows that the European Union uses a judicially created originality criteria, the United States follows a rigorous human authorship doctrine, and India uses a statutory attribution model. These different methods lead to disparities in the way AI-generated works are treated globally. The global digital economy and cross-border transactions are significantly impacted by this lack of consistency. Uncertainty in licensing, enforcement,

²³ WIPO (n 15).

and commercialization may result from a work that might be protected in one country but not in another. This disjointed legal environment raises transaction costs and makes compliance more difficult for creators, developers, and companies doing business abroad. The creation of coherent international standards in AI and copyright law is further hampered by the lack of unified standards.

6.2 An excessive dependence on human authorship

The three jurisdictions' ongoing reliance on the idea of human authorship is a major drawback. Although this idea has long been the cornerstone of copyright law, it is becoming less and less appropriate to deal with the realities of AI-driven invention.

Legal systems run the risk of rejecting an increasing number of works that are produced with little to no human involvement by conditioning copyright protection on human intellectual input.

A conceptual mismatch between technology and law results from this over-reliance²⁴. AI systems are now more than just tools; they can generate outputs that are innovative, creative, and profitable. However, the legal recognition of such works is hindered by the unwillingness to go beyond human-centric definitions. Because of this, copyright law might not be able to achieve its primary goal of encouraging innovation and creativity in a technologically advanced setting.

6.3 Not Enough for Completely Autonomous AI

When it comes to completely autonomous AI systems, current copyright frameworks are especially insufficient. Whether in the form of authorship, ownership, or culpability, the majority of legal concepts and regulations presuppose some degree of human control or interference. Nonetheless, generative AI systems are capable of creating material on their own without direct human creative input.

The application of conventional legal principles becomes difficult in certain situations. Giving ownership to a human actor, such a developer or user, could be artificial and unrelated to the real creative process. On the other hand, completely refusing protection would deter investment in cutting-edge AI systems. This conundrum highlights a basic weakness in the law: the

²⁴ Guadamuz (n 22).

incapacity to take non-human creative actors into account while upholding logical legal norms.

6.4 Confusion over Ownership and Enforcement

Uncertainty regarding ownership and enforcement is a direct result of unclear authorship regulations. It becomes challenging to identify the owner of the rights to an AI-generated work in the absence of a clearly recognizable creator. Legal conflicts may arise from conflicting claims made by various stakeholders, including as users, developers, platform providers, and data suppliers.

Enforcement measures are further complicated by this ambiguity²⁵. It's unclear who should be held accountable for copyright violations involving AI-generated content. When an AI system produces content that violates already-existing copyrighted works, for example, it becomes unclear who should be held accountable the user, the creator, or the organization using the system. The efficacy of copyright enforcement is compromised and deterrence is weakened by unclear responses.

Furthermore, commercialization is impacted by ownership uncertainty. Without unambiguous rights, businesses could be hesitant to invest in or license AI-generated works, which would limit their economic potential. Because the law does not offer the stability required for market expansion, this raises more general policy concerns.

6.5 Conclusion of Concerns

When combined, these deficiencies show that existing copyright regimes are ill-prepared to handle the difficulties presented by works created by artificial intelligence. The need for a more cogent and flexible legal response is indicated by the absence of consistency, the continuation of human-centric doctrines, the incapacity to manage autonomous systems, and the uncertainty surrounding ownership and enforcement. These flaws serve as the basis for examining possible changes in the next section.

7. Proposals for Reform and the Future

The shortcomings found in the current copyright frameworks demonstrate how urgently reform is required. Protecting human creativity, promoting technology progress, and guaranteeing

²⁵ Abbott (n 8).

legal certainty must all be balanced in any successful legal response. The following suggestions show possible methods to modify copyright law to reflect the realities of works created by artificial intelligence.

7.1 Changing Current Authorship Guidelines

Reinterpreting and extending current authorship concepts to allow for AI-assisted innovation is one strategy. The law could acknowledge substantial human input at earlier stages such as prompt design, system training, or curatorial selection as adequate for authorship instead of strictly needing direct human creation of the final work. This would enable judges to take a more adaptable, case-by-case approach, especially in countries like the US and the EU.

7.2 Protection of AI-Generated Works using Sui Generis

The implementation of a sui generis²⁶ (unique) legal framework created especially for AI-generated works is an alternate strategy. Without comparing AI-generated works to conventional copyright-protected works, such a regime might give restricted economic rights, such as rights of reproduction or commercial exploitation. This strategy would encourage investment in AI technologies while avoiding the conceptual challenges of redefining authorship. However, creating such a system raises concerns regarding the extent, durability, and ownership of these rights and runs the risk of making the legal system even more complicated.

7.3 Rights Assignment: Public Domain, Developer, or User

Determining who should own the copyright to works created by AI is another crucial question. Numerous models have been put forth:

- **Developer-Centric Model:** Giving rights to AI system developers acknowledges their contribution to the development of the underlying technology. However, this could marginalize users who actively interact with the system and overreward developers.
- **User-Centric Model:** It is consistent with conventional ideas of creative control to grant rights to the user who inputs prompts and controls the system. However, this strategy

²⁶ Abbott (n 8).

could be hard to defend when there is little or no user interaction.

- **Public Domain Approach:** By putting entirely AI-generated works in the public domain, ownership issues are prevented and access is encouraged. It might, however, lessen the incentives for funding AI-driven innovation.

Each of these models has benefits and drawbacks, and none of them by itself offers a comprehensive answer.

7.4 Hybrid Model

Adopting a hybrid model²⁷ that distributes rights according to the level of human involvement and contribution is a more equitable alternative. For example, totally autonomous AI-generated works might be subject to a limited sui generis regime or put in the public domain with specific protections, but works with significant human involvement might be eligible for standard copyright protection.

A progressive framework that acknowledges the range of human-AI cooperation would be introduced by such a paradigm. By giving courts and stakeholders more precise guidance, it would also improve legal certainty. Crucially, a hybrid approach that combines flexibility with doctrinal consistency is consistent with comparative lessons from the US, EU, and India.

8. Conclusion

This paper has argued that existing copyright frameworks in India, the United States, and the European Union are fundamentally inadequate to address the challenges posed by AI-generated works, primarily due to their continued reliance on human-centric definitions of authorship.

The analysis demonstrates that while India provides a flexible statutory approach through its attribution model, the United States maintains a rigid but clear stance by strictly requiring human authorship, and the European Union adopts a moderately flexible yet uncertain approach based on judicial interpretation. Despite these differences, all three jurisdictions face common issues, including lack of uniformity, over-reliance on human creativity, and ambiguity in ownership and enforcement, making them ill-equipped to regulate AI-generated works

²⁷ European Parliament (n 23).

effectively.

As artificial intelligence continues to redefine the boundaries of creativity, copyright law stands at a critical crossroads. Its future relevance will depend not on preserving traditional notions of authorship, but on its ability to adapt to a reality where creativity is no longer exclusively human. A failure to evolve risks rendering the law obsolete, whereas timely and balanced reform can ensure its continued role in fostering innovation and protecting creative expression in the age of AI.

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