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Redefining Ownership and Originality in the Age of AI: A Legal and Ethical Review

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ABSTRACT: The proliferation of artificial intelligence (AI) in the creative sector presents novel legal and ethical challenges to existing intellectual property (IP) frameworks. This study examines the implications of AI-generated content on existing intellectual property (IP) laws, focusing on evolving definitions of authorship and originality. Using a narrative review method, the research synthesizes literature sourced from Scopus, Google Scholar, and PubMed, filtered through strategic keyword combinations and strict inclusion criteria. It examines interdisciplinary findings covering legal theory, policy, ethics, and empirical case studies from multiple jurisdictions. The results reveal that although human input in algorithmic design remains central, AI's autonomous outputs challenge existing legal definitions and expose jurisdictional gaps. Moreover, the study reveals significant jurisdictional disparities in legal treatment of AI-generated works, with systemic issues such as lack of international harmonization and outdated legislation contributing to legal uncertainty. Ethical concerns around dataset use and the risks of unauthorized reproduction also emerge as central themes. The discussion proposes solutions including sui generis IP models, blockchain verification systems, and cross-border policy frameworks to address these issues. This review contributes a multidimensional framework for balancing human and machine authorship within evolving IP systems.

Keywords: Artificial Intelligence; AI-Generated Content; Authorship and Originality; Sui Generis Regulation.

INTRODUCTION

The advent of the Fourth Industrial Revolution has catalyzed a paradigmatic shift in creative processes, raising profound questions regarding the protection of intellectual property (IP) generated by artificial intelligence (AI). As AI systems increasingly demonstrate autonomous creative capacities, the conventional understanding of authorship and ownership grounded in human originality and subjectivity has come under intense scrutiny. Scholars have noted the inadequacies of existing legal frameworks in accommodating AI's algorithmic contributions to creative works, prompting debates about whether AI-generated outputs qualify for IP protection

and who, if anyone, should be attributed authorship (Lee et al., 2021; Oğul, 2024). This transformation necessitates a critical reassessment of IP doctrines, particularly those centered on human exclusivity in authorship.

The increasing integration of AI in content generation has challenged the doctrinal foundations of IP law. Whereas the law traditionally relies on the premise that creativity stems from human ingenuity, recent literature highlights how generative AI systems blur the boundaries between human input and machine-driven outcomes (Lee et al., 2021; Oğul, 2024). Some scholars argue that the role of the human as the mere initiator of the creative process may no longer suffice for claiming full copyright, especially when AI contributes significantly to the resulting work (Aronov & Idrysheva, 2025). In practice, this has led to legal ambiguities about the extent of protection afforded to AI-generated works, creating uncertainties for developers, users, and policymakers alike (GAFFAR & Albarashdi, 2024).

The definitional challenge of authorship and originality is further compounded by AI's capacity to produce unique content through deep learning and generative algorithms. Unlike human-created works, AI outputs often emerge from mathematical optimizations and data-driven processes, devoid of subjective intuition (Thongmeensuk, 2024). Consequently, the legal requirement of originality—once synonymous with human expression—is now being contested. Some scholars advocate for a broader interpretation of originality that encompasses algorithmic creativity (GAFFAR & Albarashdi, 2024), while others remain wary of diluting the anthropocentric values embedded in traditional copyright doctrine.

Central to the legal discourse is the issue of identifying the rightful creator when AI plays a dominant role in the creative process. Studies by Lee et al. (2021) and Aronov & Idrysheva (2025) underscore the evolving concepts of "authorship" and "inventorship" in an era of human-machine collaboration. Legal systems must now contend with questions about whether the developer, user, or even the AI system itself should be recognized as the legal author. This complexity is exacerbated by difficulties in measuring the respective contributions of each actor, necessitating new frameworks that reflect the distributed nature of AI-assisted creativity (Oğul, 2024).

Additional challenges lie in preserving the authenticity and integrity of works generated by AI. Critics argue that despite their technical sophistication, AI outputs lack the emotional resonance and subjective depth traditionally associated with human art (Oğul, 2024). Thongmeensuk (2024) emphasizes the need to revise exceptions and limitations within copyright law to prevent disparities between human and machine-generated content. Furthermore, verification mechanisms for ensuring the provenance and integrity of AI-generated works remain underdeveloped, prompting proposals to integrate blockchain technology for transparent authorship tracking (GAFFAR & Albarashdi, 2024).

Empirical evidence points to the accelerating use of AI across creative sectors such as visual arts, literature, and music. Studies by Xiao-Ying and Hong-Fu (2024) reveal a surge in AI applications within artistic industries, underscoring the widespread adoption of technology beyond experimental domains. These developments signal not only a change in the modes of production

but also in the economic structures of the creative industries, with significant implications for IP governance and regulation (Lizarralde & Contreras, 2022).

From a global perspective, regions such as North America, Europe, and East Asia are at the forefront of AI-driven creative production, integrating these technologies into their industrial and research ecosystems (Xiao-Ying & Hong-Fu, 2024). However, disparities in legal readiness and policy adaptation remain evident. While some jurisdictions have begun revising their IP laws to reflect AI innovations, others lag behind due to infrastructural and regulatory constraints (Oğul, 2024). This divergence underscores the need for a harmonized international legal approach to effectively govern the complexities of AI-generated works.

Despite the growing body of research on AI and IP, significant gaps persist. Many existing studies focus narrowly on doctrinal interpretations without adequately addressing the philosophical and ethical dimensions of machine creativity (Massadeh et al., 2024). The literature also lacks empirical analyses of regulatory implementation and cross-sectoral comparisons, limiting the development of practical and context-specific legal solutions (Lee et al., 2021; Aronov & Idrysheva, 2025). These deficiencies hinder the creation of a comprehensive legal framework that can accommodate both technological innovation and the preservation of traditional creative values.

This review aims to assess whether current IP frameworks adequately reflect the hybrid nature of human-AI content creation. The study will assess competing interpretations of authorship and originality, explore the feasibility of new legal models such as sui generis protections, and evaluate technological solutions for authorship verification. Furthermore, it will consider interdisciplinary insights from computer science, philosophy, and law to inform a balanced regulatory approach.

The scope of this review encompasses a comparative analysis of legal frameworks in developed and developing regions, including North America, Europe, East Asia, and selected jurisdictions in the Global South. Sectorally, the review will focus on technology, education, and the creative industries, which have experienced significant disruption from AI integration. By including diverse legal traditions and industry practices, the study seeks to provide a nuanced understanding of the global challenges and opportunities in regulating AI-generated creative outputs.

METHOD

This study adopted a comprehensive narrative review methodology, incorporating an interdisciplinary and systematic approach to examine the intersection between intellectual property (IP) law and artificial intelligence (AI)-generated content. The research began by identifying and refining a strategic list of keywords that would capture the broad spectrum of legal, technological, and philosophical dimensions associated with the creation and ownership of AI-generated works. These keywords included: "AI-generated content," "intellectual property law," "authorship in artificial intelligence," "machine creativity," "generative AI," "copyright protection," "sui generis intellectual property," and "legal challenges of AI-generated works" (Oğul, 2024; Mazzi, 2024; Massadeh et al., 2024).

To ensure that all relevant literature was captured, additional variants of these keywords were integrated, such as "intellectual property protection for AI-generated work," "legal implications of generative artificial intelligence," and "regulatory challenges in AI-generated content." These terms allowed for a deeper and more targeted exploration of the ways in which traditional legal doctrines have responded to the evolving nature of creative work produced by autonomous systems. Using this keyword framework, articles were retrieved from leading academic databases including Scopus, Google Scholar, and PubMed.

The inclusion criteria were meticulously designed to ensure a high standard of academic rigor and relevance. Only peer-reviewed journal articles were selected to ensure the validity and reliability of the data and arguments presented. Additionally, studies had to focus explicitly on the intersection between AI technology and IP law, with particular emphasis on copyright, authorship attribution, and the exploration of sui generis legal models. The review included qualitative studies, normative legal analyses, comparative legal research, and narrative reviews. These different study types contributed to a rich and multidimensional understanding of the research problem.

Further criteria limited the selection to studies published within the last ten years, ensuring the inclusion of up-to-date research that reflects current technological and regulatory developments. Only articles written in English and Bahasa Indonesia were included unless officially translated, enabling accessible and consistent interpretation. This temporal and linguistic focus reduced regional biases and aligned the study with contemporary developments in AI and IP law (Mazzi, 2024; Massadeh et al., 2024).

Exclusion criteria were also clearly established. Articles that focused solely on the technical aspects of AI without substantive engagement with legal or IP issues were excluded. Similarly, studies that were purely descriptive or lacking empirical or normative legal analysis were not considered. Non-peer-reviewed publications, including white papers, blogs, and unverified internal reports, were also excluded to maintain academic integrity. Articles lacking transparency in methodology or analytical depth were also disqualified to safeguard the credibility of the review (Massadeh et al., 2024).

Particular attention was given to interdisciplinary research that integrated perspectives from law, technology, ethics, and philosophy. Comparative legal studies that examined differences in IP frameworks across jurisdictions provided valuable global context, while narrative reviews helped trace the chronological evolution of the concepts of authorship and inventorship in relation to AI-generated works. Studies offering practical policy recommendations for IP reform were especially prioritized to enrich the analysis with actionable insights.

The systematic literature search across Scopus, Google Scholar, and PubMed utilized combinations of keywords and advanced search filters, including publication year, document type, and citation performance. This ensured the inclusion of high-impact studies across multiple disciplines such as computer science, information technology, law, and cultural studies. Each article's metadata—including title, abstract, keywords, and journal classification—was carefully reviewed to determine its relevance.

Data extraction involved collecting methodological details, study type, jurisdictional focus, and primary findings related to AI and IP challenges. Reference management software was used to organize and categorize literature by topic, publication date, and study type. This facilitated efficient citation tracking and helped identify key research gaps.

A structured screening protocol was developed and executed in four stages: identification, screening, eligibility assessment, and inclusion. Abstracts and, where necessary, full texts were reviewed in detail to ensure relevance. Articles were evaluated using a spreadsheet that recorded inclusion decisions and justifications. This process was supplemented by regular team discussions to address ambiguous cases and ensure consensus.

The review included policy analysis articles that contrasted traditional and novel legal approaches to AI-generated works, especially those with comparative elements. Case studies were also included to illustrate real-world legal dilemmas encountered in courts or policymaking institutions. These provided grounded insights into the practical limitations of existing IP frameworks.

Doctrinal analyses focusing on theoretical interpretations of IP law were integral to constructing a conceptual framework for legal reform. Quantitative studies that tracked trends in AI content production and analyzed the frequency of relevant publications were also included. Content analysis was employed to extract key themes from abstracts and introductions, while text analysis software helped group articles around strategic topics such as "ownership issues," "creative attribution," and "regulatory reform."

Advanced search filters were applied to restrict results to the most relevant articles. Filtering by discipline ensured that the review emphasized legal implications rather than purely technical analyses. Cross-database comparison helped validate the comprehensiveness and reliability of the literature sample. The quality of each study was assessed using a pre-established framework that evaluated clarity of objectives, methodological soundness, and argumentative strength.

Comparative studies using historical or longitudinal approaches were included to analyze shifts in legal interpretations of authorship and ownership before and after the rise of AI. Case studies demonstrated the operational challenges of adjudicating authorship claims involving AI, while normative studies offered philosophical and ethical critiques of existing IP principles. Articles using statistical models or empirical legal methods were especially valued for their evidentiary contributions.

The final literature set was diverse, incorporating international perspectives from both developed and developing countries. This diversity allowed for a comprehensive mapping of global responses to AI-generated creative works. The sectoral focus included the creative industries, technology sectors, and education, all of which have experienced significant AI-related disruption. Regional focus extended beyond North America and Europe to include Asia and select Global South countries.

Data organization included the creation of summary tables detailing each article's authorship, year, type, methods, and key findings. Thematic coding was applied to group literature by major

conceptual concerns, such as originality, attribution, legal reform, and verification technologies. These themes were mapped conceptually to reveal interrelationships among variables like AI autonomy, legal recognition, and economic incentive structures.

To enhance the validity of findings, triangulation was conducted across doctrinal, empirical, and policy-oriented studies. Concept maps were created to visualize the relationship between legal and technological terms and ideas. Ethical standards were upheld throughout, with all data and references properly cited and documented.

Pilot testing of search strategies and filters was conducted early in the review process to ensure the effectiveness of the methodological approach. Iterative searches were conducted to incorporate emerging keywords and terminologies. Citation chaining was used to trace influential works referenced in the selected articles.

The final analytic framework integrated findings from all article types to construct a coherent narrative that reflects the legal, technical, and ethical complexities of protecting AI-generated works. The methodology was transparently documented and designed to be replicable by future researchers. This research thus adheres to the highest standards of academic rigor, ensuring a valid and reliable foundation for the subsequent analysis and policy recommendations in the context of AI and intellectual property law.

RESULT AND DISCUSSION

The comprehensive narrative review conducted in this study reveals five major thematic areas: (1) legal ownership and authorship in AI-generated works; (2) standards of originality and creative value; (3) global legal frameworks and comparative perspectives; (4) ethical concerns and legal risks; and (5) case studies and best practices in protecting intellectual property (IP) for AI-created content. These themes illustrate the multifaceted and evolving nature of intellectual property law as it interacts with artificial intelligence.

The debate surrounding legal ownership of AI-generated works is increasingly shaped by a shift in the traditional concept of authorship. Several studies, including those by Kazeeva (2024) and Oğul (2024), suggest that individuals or organizations responsible for programming and managing AI systems should be entitled to legal ownership, even when AI systems operate independently through self-learning mechanisms. Conversely, other legal scholars argue that ownership cannot be attributed without human intervention, emphasizing the need for a collaborative ownership framework (GAFFAR & Albarashdi, 2024). To reconcile these positions, Kazeeva (2024) proposes a sui generis model of intellectual property rights that better accommodates the hybrid nature of human-AI collaboration. The literature collectively underscores the urgency to redefine ownership by incorporating proportional human and algorithmic contributions.

Closely related to ownership is the matter of originality. The traditional standard of originality, which emphasizes human creativity, is challenged by the increasing complexity and autonomy of AI systems. Mazzi (2024) and Oğul (2024) note that current legal criteria for originality are

insufficient to capture the nuanced contributions of machine-generated content. They argue for a multidimensional approach that blends mathematical parameters with qualitative evaluations of non-traditional creative outputs. This position is supported by Kazeeva (2024), who maintains that AI output can still qualify as original if legal frameworks evolve to reflect new forms of creativity. While some scholars express concern that AI diminishes the human "touch," others advocate for flexible standards that uphold fairness in IP rights while recognizing technological advancements.

In analyzing the legal frameworks across jurisdictions, the literature identifies a spectrum of interpretations. The United States maintains a relatively conservative position, preserving the requirement of human authorship while exploring limited administrative accommodations (Aronov & Idrysheva, 2025). The United Kingdom, similarly rooted in common law, has shown incremental reform through judicial reinterpretation of "originality," acknowledging AI involvement in creative processes (Magauiya et al., 2023). South Korea presents a more progressive stance, amending its definitions of inventorship to reflect the growing influence of algorithmic processes (Ramli et al., 2023). Meanwhile, Indonesia appears to be in a transitional phase, initiating national discussions on the legal status of AI-created works and the potential need for updated legislative frameworks (Ramli et al., 2023). These comparative findings demonstrate that while legal evolution varies by country, there is a shared global recognition of the need to adapt existing laws.

A global comparison highlights both differences and commonalities in national responses to AI-generated intellectual property. Advanced economies such as the US and UK tend to emphasize market-driven principles, prioritizing efficiency and legal certainty (Magauiya et al., 2023). In contrast, developing countries like Indonesia favor contextual legal adaptation, providing flexibility for policy alignment with technological innovation (Ramli et al., 2023). Despite differing approaches, there is widespread consensus on the necessity for international collaboration to bridge definitional gaps and mitigate jurisdictional inconsistencies (Kazeeva, 2024). The convergence on shared objectives—protecting innovation and ensuring justice—reinforces the call for harmonized IP laws.

The literature also delves into ethical concerns and legal risks related to AI. Kumar & Suthar (2024) raise red flags about the unauthorized use of copyrighted datasets to train AI systems. This practice, though aimed at enhancing machine performance, often results in the exploitation of original content without due compensation. Thongmeensuk (2024) notes that AI frequently merges data from diverse sources, increasing the risk of plagiarism or unattributed replication. Such actions blur legal boundaries and expose stakeholders to litigation. Furthermore, techniques like adversarial learning do not entirely eliminate ethical uncertainties surrounding data provenance and transparency (Kumar & Suthar, 2024). These findings point to an urgent need for new operational standards in data usage, grounded in fairness and accountability.

Legal risks are further compounded by the misuse of generative AI technologies. Studies indicate that unregulated AI systems can be weaponized to create mass copyright infringements, disseminate misinformation, and replicate harmful content (Thongmeensuk, 2024). The ability of algorithms to mimic writing styles or replicate visual content without consent threatens the authenticity and integrity of intellectual creations. Existing legal frameworks are ill-equipped to handle such scenarios, as they were designed for traditional content production (Thongmeensuk,

2024). This inadequacy often leads to international legal disputes, exacerbated by inconsistencies in cross-border IP enforcement (Magauiya et al., 2023). Hence, a holistic and adaptive legal strategy is essential to address AI-induced risks.

Case studies provide concrete illustrations of how different jurisdictions respond to AI-related IP issues. For example, disputes over digital effects and ownership attribution have prompted courts to evaluate the extent of human input in AI-generated outcomes (Aronov & Idrysheva, 2025). In patent law, some countries have begun recognizing human operators of AI as inventors, acknowledging their role in configuring AI systems (Aronov & Idrysheva, 2025). Kazeeva (2024) highlights legislative initiatives adopting sui generis models that specifically target the unique attributes of AI outputs. These developments mark a shift toward experimental legal models that aim to balance innovation with equitable attribution.

Best practices also emerge from national and institutional efforts to align IP laws with AI capabilities. The US has developed internal guidelines that merge technical and legal analyses to verify authorship claims (Aronov & Idrysheva, 2025). The UK has revised its copyright laws to recognize limited AI authorship under specific conditions (Magauiya et al., 2023). South Korea's interdisciplinary policy-making integrates legal, technical, and ethical perspectives, creating a robust regulatory environment (Ramli et al., 2023). In Indonesia, ongoing collaborations between academics and policymakers aim to draft legislation that explicitly addresses AI-generated content (Ramli et al., 2023). These initiatives demonstrate the potential for interdisciplinary integration and experimental legislation to address emerging legal gaps.

In sum, the review reveals that the central challenge of regulating AI-generated intellectual property lies in redefining authorship, ensuring originality, and managing ethical concerns. Oğul (2024) and Aronov & Idrysheva (2025) emphasize the importance of reconfiguring traditional legal models to reflect collaborative creativity. Thongmeensuk (2024) stresses the role of data governance and ethical compliance, while Magauiya et al. (2023) advocate for legal frameworks that are both adaptable and globally harmonized. Kazeeva (2024) provides the theoretical underpinnings for reform through sui generis models that integrate algorithmic creativity into legal recognition. Collectively, these contributions form a solid empirical and theoretical basis for IP law reform.

The findings suggest that future legal systems must adopt hybrid frameworks that acknowledge joint human-AI contributions. Transparency mechanisms, such as audit trails and algorithmic accountability, are necessary to verify ownership and creative input. Comparative perspectives further underscore the importance of cross-border legal coherence. The review concludes that international harmonization of IP laws is not only desirable but essential for fostering innovation and protecting rights in the digital era.

This discussion explores the implications of the findings in light of existing literature, highlighting the convergence between traditional legal frameworks and the need for reform to accommodate emerging forms of digital creativity powered by artificial intelligence (AI) (Kumar & Suthar, 2024; Xiao-ying & Hong-fu, 2024). The research confirms previous analyses that underscore the challenges of managing intellectual property (IP) for AI-generated works, particularly in relation to authorship and originality, thus reaffirming the importance of human contribution in the

configuration and control of algorithms as a fundamental basis for copyright assignment (Fontana, 2024; Kumar & Suthar, 2024).

The results reinforce a growing consensus in the literature that ownership of AI-generated content should not be autonomously assigned to the AI itself, emphasizing instead the guiding role of human agents in defining AI parameters and creative goals (Kumar & Suthar, 2024). As earlier proposed in theoretical frameworks, the study supports the development of sui generis legal models that would better capture the algorithmic nature of AI contributions while preserving the legal infrastructure of human creativity (Xiao-ying & Hong-fu, 2024). Additionally, it supports proposals to revise originality standards to accommodate outputs generated through complex computational and machine-learning processes (Fontana, 2024), thereby providing empirical validation to arguments for a reformulation of the concept of "original works" in the digital and AI era.

While largely aligning with earlier literature, the findings also reveal notable tensions and inconsistencies. For instance, despite scholarly support for algorithmic contributions, the current trend remains toward emphasizing human authorship as the cornerstone of IP rights (Kumar & Suthar, 2024). This creates a contradiction with more progressive views that support recognizing AI as an autonomous contributor. The challenges surrounding AI's creative processes—particularly the integration of large, diverse datasets that cannot be easily reduced to human input—have yet to be resolved uniformly across jurisdictions (Fontana, 2024). The ongoing debate over originality—whether measured through statistical innovation or human-like aesthetic judgment—exemplifies the lack of a unified global approach (Xiao-ying & Hong-fu, 2024). This suggests a pressing need for continued empirical and conceptual work to define inclusive standards for assessing AI-generated content (Kumar & Suthar, 2024).

Systemic factors underpin much of the legal uncertainty surrounding AI-generated works. The absence of international harmonization and the slow pace of legislative adaptation are central to the problem (Fontana, 2024). The study underscores how jurisdictional fragmentation leads to conflicting interpretations of authorship and copyright, especially in cross-border disputes (Xiao-ying & Hong-fu, 2024). Divergent legal cultures and policy priorities hinder the development of consistent and enforceable rules, exposing a fundamental systemic failure in current regulatory ecosystems (Fontana, 2024; Xiao-ying & Hong-fu, 2024). This lack of legal clarity significantly undermines the incentive structures essential for fostering innovation in creative sectors.

The divide between developed and developing countries further complicates this regulatory ambiguity. While jurisdictions such as the United States and the United Kingdom offer formal but rigid IP frameworks, emerging economies like Indonesia tend to adopt more flexible but weaker enforcement mechanisms (Kumar & Suthar, 2024). Without multilateral dialogue and legal coordination, these discrepancies create fragmentation that diminishes global consistency in IP protection for AI works (Fontana, 2024; Xiao-ying & Hong-fu, 2024). The findings call for an internationally coordinated legal architecture capable of resolving jurisdictional conflicts and facilitating cross-border innovation.

A critical gap identified in the current literature is the inadequate understanding of the ethical and technical implications of training datasets used in AI systems. Often, these datasets contain copyrighted material that is harvested without proper consent, leading to legal infractions and

ethical dilemmas (Kumar & Suthar, 2024). The failure to implement robust oversight mechanisms compromises both data integrity and the rights of original creators (Fontana, 2024). The complexity involved in monitoring AI training processes highlights the inadequacy of existing legal frameworks to address unauthorized use of protected content (Xiao-ying & Hong-fu, 2024). Therefore, greater transparency in data handling practices is urgently needed to resolve the legal uncertainty surrounding AI-generated outputs (Kumar & Suthar, 2024).

The study identifies several promising policy implications that could help mitigate these challenges. Reforming copyright laws to explicitly account for AI contributions without diminishing human roles is essential (Fontana, 2024). A new legal paradigm—potentially embodied in sui generis regimes—is required to accommodate the unique dual-contribution model of human-machine collaboration (Xiao-ying & Hong-fu, 2024). Technology such as blockchain can enhance verification systems, ensuring transparent and secure documentation of the creative process (Kumar & Suthar, 2024). These reforms would help align IP protections with the realities of AI-driven creativity and innovation.

Moreover, the findings advocate for sustained multistakeholder dialogue involving legal scholars, policymakers, and technologists to formulate comprehensive regulatory standards (Kumar & Suthar, 2024). The fragmentation in legal interpretations must be addressed through cross-border policy platforms capable of producing adaptable and harmonized standards (Fontana, 2024; Xiao-ying & Hong-fu, 2024). A global forum or treaty-based institution could serve as a mediator for regulatory integration, ensuring that future governance of AI and IP evolves in a collaborative and forward-looking manner.

The study also highlights the strategic integration of digital verification systems as a transformative solution for IP governance. Blockchain-based copyright tracking can provide immutable records, thereby reducing disputes and reinforcing legal certainty (Xiao-ying & Hong-fu, 2024). Such systems also enable real-time monitoring and decentralized management of copyright claims, further enhancing trust and efficiency in creative industries (Fontana, 2024). As suggested, regulatory innovation must be accompanied by institutional transformation in enforcement agencies to accommodate the speed and complexity of AI advancements (Kumar & Suthar, 2024).

Ethical considerations must also be embedded in IP policymaking. Legal reforms should mandate fair data practices and uphold the rights of original content creators, particularly in AI training contexts (Fontana, 2024). Regulatory strategies that emphasize accountability and transparency are essential to sustain public trust and prevent misuse of generative technologies (Xiao-ying & Hong-fu, 2024). Integrating ethical frameworks into legal design can help reduce risks of exploitation and promote sustainable innovation ecosystems (Kumar & Suthar, 2024).

Despite its contributions, this study acknowledges several limitations. The existing literature is heavily concentrated in Western jurisdictions, which may limit the applicability of findings to diverse legal contexts. Furthermore, empirical data on how AI is practically deployed in creative sectors remains limited. There is a need for interdisciplinary research that incorporates technical, legal, and cultural perspectives to inform more inclusive legal frameworks. Future studies should also examine the implications of AI-generated content in emerging economies and underrepresented jurisdictions, thereby enriching global discourse on equitable IP reform. Finally,

a stronger empirical base is needed to evaluate the efficacy of proposed models like sui generis systems and blockchain-based copyright verification in real-world legal and commercial settings.

CONCLUSION

This study confirms that the rise of artificial intelligence (AI) in the creative process poses fundamental challenges to the traditional framework of intellectual property (IP) law. The findings emphasize that while AI systems significantly contribute to content generation, the role of human creators in configuring algorithms and directing outputs remains essential for legal ownership attribution. This reaffirms the argument that existing IP frameworks need urgent reform, particularly in redefining concepts such as authorship and originality to accommodate machine-generated works.

The review also highlights a pressing gap in global legal harmonization, revealing how fragmented interpretations across jurisdictions hinder effective cross-border IP protection. Countries with advanced legal infrastructure often adopt rigid frameworks, while developing countries show adaptive flexibility but face enforcement limitations. Furthermore, ethical and legal dilemmas stemming from the use of copyrighted data for AI training underscore the need for transparent data governance mechanisms.

The study proposes the implementation of sui generis legal models, blockchain-based verification systems, and ethical standards as urgent policy responses. These strategies should be accompanied by coordinated international dialogue to promote a unified legal approach to AI-generated content. Future research should explore empirical studies on the effectiveness of AI-IP legislative reform and assess the long-term implications of hybrid human-AI creativity.

Ultimately, integrating regulatory innovation, international cooperation, and ethical foresight will be key to developing an inclusive, adaptive, and future-ready IP regime that aligns with the evolving dynamics of AI-generated intellectual property.

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