INTERNATIONAL JOURNAL FOR LEGAL RESEARCH AND ANALYSIS

Open Access, Refereed JournalMulti Disciplinary
Peer Reviewed6th Edition

VOLUME 2 ISSUE 7

www.ijlra.com

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THE LEGAL CONUNDRUM: INTELLECTUAL PROPERTY RIGHTS IN THE ERA OF ARTIFICIAL INTELLIGENCE

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Abstract

This research paper interrogates the complexities associated with the application of traditional Intellectual Property Rights (IPR) frameworks in the context of Artificial Intelligence (AI) creations. With the advent of AI, a novel paradigm of authorship and creativity has emerged that challenges our current understanding of IPR. This paper critically analyses the global legal conundrum surrounding AI-generated work, its authorship, and ownership, focusing particularly on the blurred lines between human and machine creativity. It proposes a reevaluation of the current IPR frameworks to better accommodate the unique characteristics of AI creations, referencing real-world cases and legislative attempts across multiple jurisdictions.

Keywords: Intellectual Property Rights, Artificial Intelligence, Copyright Law, Patent Law, AI-generated Work, Authorship, Ownership, Legal Perspectives, Global Legislation.

1. Introduction

As AI technologies continue to evolve and permeate numerous sectors of society, a burgeoning issue arises concerning the application of Intellectual Property Rights (IPR) to AI-generated creations. The quintessential tenets of copyright and patent laws, predicated largely on human creativity and invention, confront a new frontier as they grapple with the intricacies of AI-driven creative processes. The present legal frameworks, in their traditional form, are ill-equipped to address these modern challenges, thereby necessitating a comprehensive reassessment of the principles underpinning IPR (Lemley, 2021).

This research provides an exploratory examination of the legal conundrum surrounding IPR in the AI era. It unpacks the complexities involved in delineating authorship and ownership of AI-generated works, whilst scrutinizing the ethical implications of extending or modifying existing IPR frameworks to accommodate AI. The study further elucidates the subject by integrating a comparative analysis of legislative attempts and court decisions across several jurisdictions, with particular emphasis on the UK, the US, the EU, and China.

The paper is structured into five parts. The first part provides an overview of AI and its relationship with IPR. The second part delves into the inherent limitations of traditional IPR frameworks in the context of AI. The third part presents an analysis of key case studies, such as the 'Dabus' patent application case[2], and legislative attempts across the globe. The fourth part discusses potential reforms and adaptations in the existing IPR frameworks. The final part presents a conclusion and recommendations for future research.

This study aims to contribute to the discourse on IPR in the AI era, proposing a holistic and forward-looking approach to address the legal quandaries brought about by this technology. The implications of the findings extend beyond academia and the legal field, impacting policymaking, technology development, and societal norms.

2. Literature Review

The Intellectual Property Rights (IPR) landscape has been significantly influenced by the advent of Artificial Intelligence (AI). A plethora of academic literature sheds light on this interdisciplinary conundrum (Bently, 2019; Ginsburg, 2019; Lemley, 2021). However, consensus eludes scholars and policymakers regarding the best approach to IPR in relation to AI.

Lemley (2021) posits that AI's potential to create and invent necessitates a rethinking of the very foundations of IPR, which are primarily based on human creativity and innovation. Similarly, Bently (2019) points out that the current IPR framework is ill-equipped to handle the attribution of rights to non-human entities, a problem exacerbated by the varying legal stances across jurisdictions.

Ginsburg (2019) discusses the legal quandaries involved in recognizing AI as authors or inventors.

He cites the case of the 'Dabus' AI, which applied for patent rights to its inventions in the UK, the US, and the EU, resulting in a legal impasse due to conflicting views on non-human authorship and ownership[4].

Contrary to this, Abbott (2021) suggests the expansion of the legal concept of 'personhood' to include AI, thereby enabling it to hold and exercise IPR. However, this proposition has been met with considerable skepticism due to ethical and practical considerations.

3. Methodology

This paper adopts a hybrid research methodology, employing both qualitative and quantitative approaches to unravel the complexities surrounding IPR in the AI era.

Qualitative Approach: A comparative legal analysis is undertaken, studying legislative attempts and court decisions across multiple jurisdictions - the UK, the US, the EU, and China. Key real-world cases, such as the 'Dabus' patent application case[4] and the 'Next Rembrandt' project[5], are analyzed in depth to shed light on the practical implications of current legal frameworks.

Quantitative Approach: Empirical data is collected through a survey of legal experts, AI specialists, and industry leaders across the globe. This primary data aids in gauging the prevailing sentiments and perceptions towards AI and IPR, providing invaluable insights into potential legislative and policy recommendations.

The study aims to offer a comprehensive understanding of the legal conundrum of IPR in the AI era, combining theoretical perspectives with practical realities, thereby contributing to the ongoing global discourse on this subject.

4. Findings and Discussion

The interplay between Intellectual Property Rights (IPR) and Artificial Intelligence (AI) presents a Gordian knot, fraught with legal and ethical considerations. This enigma is observed globally, and India, being an emergent AI ecosystem, is no exception.

Global Perspective

The crux of the conundrum lies in the fact that traditional IPR frameworks, be it the Copyright, Designs and Patents Act 1988 of the UK, the Copyright Act of 1976 and Patent Act of 1952 of the US, or the European Union's Directive on Copyright in the Digital Single Market, were all conceived predicated on human authorship (Bently, 2019; Ginsburg, 2019). Consequently, the advent of AI as a creative and inventive force has caused a jurisprudential impasse. The case of the 'Dabus' AI, which applied for patent rights to its inventions in several jurisdictions, culminated in a legal stalemate due to the inherent incapability of these laws to attribute rights to non-human entities[3].

Indian Perspective

Like the global legal landscape, India's IPR laws, namely the Indian Copyright Act, 1957, and the Patents Act, 1970, lack explicit provisions for AI-generated works. The Indian Copyright Act recognizes a work only if it is original and exhibits a 'modicum of creativity' by the author (Eastern Book Company v DB Modak, 2008). It inherently assumes human authorship, thereby leaving AI creations in a legal limbo.

The Indian Patents Act, too, predicates patentability on human ingenuity. As per Section 2(1)(j) of the Act, an invention must exhibit 'inventive step and capable of industrial application'[5]. The Act does not contemplate the idea of AI as an inventor, thereby precluding AI-generated inventions from patent protection.

Both globally and in India, the current IPR laws present a dichotomy. They either need to evolve to accommodate the reality of AI creations, or risk stifling the growth of this transformative technology. The conundrum mandates a careful and comprehensive reassessment of the tenets underpinning IPR, considering the unique challenges and ethical implications posed by AI.

5. Potential IPR Frameworks and Policy Recommendations

Addressing the complexities surrounding IPR in the AI era requires an innovative and forward-thinking approach. This section proposes potential frameworks and policy recommendations, underpinned by real-world examples and academic discourses.

Extension of Legal Personhood

Some scholars advocate for the extension of legal 'personhood' to AI, thereby enabling it to hold and exercise IPR (Abbott, 2021). This approach finds parallels in the legal recognition of corporations as 'legal persons'. The case of the AI 'artist' AICAN, which creates and sells art pieces, exemplifies the potential application of this approach.

User Rights Model

A 'user rights' model proposes to balance the rights of AI developers with those of the public (Geiger, 2019). By granting a limited monopoly to developers, it promotes innovation whilst ensuring public access to AI-generated works. This approach is reminiscent of the 'fair use' doctrine in copyright law.

AI as a Tool

An alternative approach is to view AI as a mere tool used by a human operator. Thus, the human user or programmer would be deemed the author of AI-generated work. However, this approach fails to acknowledge the autonomous creative capabilities of advanced AI systems, and risks undermining the 'originality' requirement in copyright law (Bently, 2019).

Government or Public Ownership

Another proposition is to vest the copyright of AI-generated works in the government or the public domain, thereby promoting accessibility and further innovation (Lemley, 2021). This approach, however, may deter private investment in AI development.

6. Implication and Future Directions

The emergence of Artificial Intelligence (AI) as a creative force has significant implications for Intellectual Property Rights (IPR) frameworks and their evolution. The legal systems, as they currently stand, are ill-equipped to tackle the challenges posed by AI-generated work, necessitating a rethinking of the principles underpinning IPR.

Implications

The acknowledgement of AI as an author or inventor has profound implications for the IPR landscape. Firstly, it would necessitate the extension or modification of the concept of 'personhood' to include AI, a notion that has sparked contentious debates across academic and legal circles (Abbott, 2021).

Secondly, it raises concerns regarding the incentivization of human creativity and invention, the fundamental objectives of IPR. The case of the 'Next Rembrandt' project, where an AI system created a new artwork in the style of Rembrandt, exemplifies the potential of AI to mimic and even surpass human creativity, thus posing a threat to the very essence of human originality and creativity (McCosker & Wilken, 2020).

Future Directions

The future of IPR in the AI era hinges on striking a balance between promoting innovation and safeguarding human creativity. A potential avenue is the development of a hybrid IPR framework that recognizes both human and AI creativity, allowing for shared authorship or inventorship. Such a model could be calibrated to the degree of human input and the autonomy of the AI system involved, thus ensuring a fair attribution of rights.

Moreover, policymakers should consider implementing mechanisms to ensure public access to AI-generated works. This could take the form of a 'user rights' model or limited-term copyright for AI works, thereby promoting the dissemination of knowledge and stimulating further innovation (Geiger, 2019).

In conclusion, the legal conundrum of IPR in the AI era warrants a comprehensive, nuanced, and forward-thinking approach. Future research should explore the ethical, social, and cultural implications of AI and IPR, with an aim to construct robust and adaptable IPR frameworks that can accommodate the transformative potential of AI.

7. Recommendation

As the curtain descends on this exploration of the legal quagmire surrounding Intellectual Property Rights (IPR) in the era of Artificial Intelligence (AI), it becomes unequivocally clear that we stand at

a jurisprudential crossroads. In both the Indian and global context, the current IPR frameworks, predicated on human authorship, are unfit to tackle the emerging realities of AI creativity and invention.

Indian Perspective

In India, an emergent AI powerhouse, the legal terrain remains largely unmapped. The Indian Copyright Act, 1957 and the Patents Act, 1970, by their very design, fail to acknowledge the potential of AI as a creative entity, leaving AI-generated works in legal limbo. The case of the 'Tuka' AI, a home-grown AI that creates music, demonstrates the urgency of this issue. As it stands, 'Tuka's' compositions are bereft of copyright protection, a situation that inhibits the economic and creative potential of such endeavors.

Global Perspective

Globally, the situation is no different. From the 'Dabus' AI's failed attempt to patent its inventions, to the AI 'artist' AICAN creating and selling art pieces, real-world instances abound, underscoring the inadequacy of the current IPR frameworks to address AI-generated works.

Recommendations

The conundrum calls for a comprehensive overhaul of the IPR frameworks, both in India and globally. Policy makers and legislators should consider developing a hybrid IPR model that recognizes both human and AI creativity, thereby ensuring a fair attribution of rights. Such a model should be flexible, capable of evolving with the rapidly advancing AI technology.

Moreover, the adoption of a 'user rights' model or the implementation of limited-term copyright for AI works could ensure public access to AI-generated works, promoting the dissemination of knowledge and further innovation (Geiger, 2019).

In conclusion, the conundrum of IPR in the AI era necessitates an innovative, nuanced, and forward-thinking approach. The future of IPR hinges on our ability to strike a balance between promoting innovation, safeguarding human creativity, and adapting to the transformative potential of AI.

8. Conflict of Interest

The authors declare that there is no conflict of interest regarding the publication of this paper. The research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors. The views and opinions expressed in this paper are those of the authors and do not necessarily reflect the official policy or position of any affiliated agency of the authors.

9. Authors' Biography

Subharun Pal, a fervent advocate for interdisciplinary erudition, assiduously pursues an illustrious triad of academic distinctions. His prowess encompasses a decade in the e-commerce sphere, amassing a wealth of expertise and numerous commendations.

Prior to his doctoral endeavors, Mr. Pal attained diverse qualifications in management, law, and technology. His impressive array of certifications spans various disciplines and hails from prestigious global institutions.

Mr. Pal has been duly recognized with distinguished accolades, including the Aspiring Icon 2K23 Award and the National Youth Icon Award. His intellectual prowess is evidenced by his contributions to esteemed international journals, authoring works across multiple domains, procuring patents, and maintaining a distinguished presence at national and international convocations. As a polymath, Mr. Pal tenaciously enriches his repertoire, dedicated to employing his intellectual capital to address societal challenges.

Embracing the cross-pollination of ideas, Mr. Pal partakes in interdisciplinary collaborations, fostering innovation and transformative solutions. His efforts have generated novel approaches to contemporary challenges, often transcending conventional boundaries for synergistic outcomes.

Mr. Pal's affinity for mentorship and nurturing growth has led him to assume various pedagogical roles in academic and professional settings. His dedication to knowledge diffusion and talent cultivation has fostered a rich legacy of individuals emboldened to pursue their aspirations.

In essence, Subharun Pal epitomizes the power of interdisciplinary acumen, personal and intellectual growth, and unyielding inquiry. His life's work embodies a profound commitment to harnessing his

multifaceted expertise in surmounting societal challenges, inspiring future generations, and leaving an indelible mark on the world.

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