IMPROVEMENT OF FAIR USE SYSTEM IN CHINA'S COPYRIGHT LAW UNDER ARTIFICIAL INTELLIGENCE CREATION

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Abstract

Artificial intelligence (AI) creations involves the training of algorithms on extensive datasets, enabling these systems to identify patterns and characteristics within the data. Consequently, AI can rapidly generate new creations based on the learned models. This evolution not only heralds a transformation in the paradigm of creation but also presents significant challenges to existing copyright fair use regulations. The application of fair use provisions to AI-generated content has highlighted several conceptual, institutional, and practical dilemmas. Therefore, it is critical to formulate a nuanced strategy to refine copyright fair use guidelines to address these challenges effectively. To begin with, there should be a broadening in the interpretation of the "personal use" provision to accommodate the nuances of AI-driven creations. Furthermore, transitioning from a granular, step-by-step analysis of fair use to a more comprehensive and holistic evaluation is crucial. Additionally, the integration of specific exemption clauses designed for AI-generated content is imperative. Finally, it is essential to explore the establishment of a taxation framework tailored to artificial intelligence to ensure that the benefits of AI creations are shared equitably and that creators are appropriately compensated. This approach will ensure that copyright laws evolve in tandem with technological advancements, safeguarding the interests of all stakeholders in the digital age.

Keywords: Artificial Intelligent Creation, Copyright, Fair Use Rules, Algorithm Author, Artificial Intelligence Taxation System.

INTRODUCTION

Generative AI technology transcends mere execution of pre-defined tasks, representing a sophisticated branch of AI that employs intricate algorithms, models, and rules to analyze large datasets and generate novel content. This technology has found applications in numerous fields, including literature and artistic creation, where it introduces a new paradigm known as "algorithmic creation." Through this approach, AI leverages advanced learning algorithms and draws upon extensive databases containing thousands of existing works—ranging from texts and images to music compositions—for training purposes. Through repeated cycles of training, the AI identifies creative patterns and features within these datasets, formulating generative models that serve as the basis for producing new, original content. Both human and AI-driven

creations fundamentally rely on the examination and assimilation of pre-existing works. In the case of human creativity, copyright laws offer specific exemptions, such as fair use provisions, which balance the protection of copyright holders' interests with the broader objectives of knowledge dissemination and cultural development. However, the current legal framework lacks sufficient provisions for AI-generated creations, leading to contentious debates among stakeholders in the AI creation sector. This discrepancy highlights the need for a more inclusive legal approach that acknowledges the unique aspects of AI-generated content while ensuring fair compensation and recognition for all forms of creativity.

The process involved in AI creation can be summarized into several stages. Firstly, the development process of AI can be delineated into distinct, sequential stages, each critical to the integrity and success of the final output. Initially, the process begins with the meticulous collection and preparation of data, which spans a broad spectrum of formats including images, audio, and text. This foundational step is crucial for ensuring the comprehensiveness and diversity of the data pool. Following collection, the data is subjected to a rigorous cleaning and preprocessing regimen. This phase addresses various issues such as the elimination of noise, standardization of formats, and rectification of missing values, thereby enhancing the data's quality and uniformity. Subsequently, the focus shifts to the selection and optimization of generative models. This selection is intricately aligned with the specific nature of the output desired and the project's overarching requirements. Once appropriate models are identified, they are trained using the curated dataset. The training phase is pivotal, involving the adjustment of model parameters via backpropagation algorithms, a process that equips the model to accurately assimilate the features and distributions inherent in the data. Concomitant with the training phase is the imperative process of model tuning and validation. This entails a meticulous adjustment of hyper-parameters, the application of regularization techniques, and the incorporation of data augmentation strategies. These steps are essential for enhancing the model's generalization capabilities and optimizing its performance. The culmination of this process is the generation of creative works, designed to fulfill the predefined objectives. A critical evaluation of these outputs is indispensable to ascertain their quality and ensure they meet the established expectations. This evaluation employs both quantitative metrics—such as quality indicators for images or fluency measures for textual content—and qualitative assessments, including subjective evaluations by end-users. This comprehensive and systematic approach to AI creation not only ensures the production of high-quality outputs but also advances the field of AI by pushing the boundaries of creative and technological possibilities.

The advent of AI in the realm of creation has ignited a multitude of debates, underscoring a pivotal shift in the perception of creativity itself. A significant discourse among these is the argument that AI-driven creativity serves to demystify the concept of creativity, challenging the long-standing author-centric model of creation. This model has historically fluctuated in prominence alongside the subject paradigm, which, at its zenith, elevated authors to the status of creators, and at its nadir, relegated them to the role of mere functional entities. In this evolving landscape, the act of authorial creation has transitioned from being viewed as a personal interpretive act to being seen as a discursive and functional expression. Instances such

as folk literature, orphan works, and author branding are heralded as indicators of the diminishing role of the author within the copyright domain, signaling a move away from author centrism.

Diverse opinions exist among human authors regarding this shift. While AI has the capability to emulate the creative processes of humans and produce works that bear resemblance to human-made literature and art, critics argue that it falls short of capturing the deeper, spiritual essence that underpins human creativity. This essence, often reflective of societal conditions and imbued with critical significance, is rooted in the human experience and the ability to engage with and interpret the social environment. AI, by its nature, lacks the capacity to fully grasp or embody these human experiences, rendering its creations somewhat superficial in comparison to the morally and emotionally resonant works produced by humans.

Furthermore, proponents of AI in creative domains advocate for a technological reimagining of creative practices. They propose the autonomous generation of content that does not adhere to any pre-existing style, effectively challenging the traditional reverence for historical precedents and established works. This approach not only questions the legacy of creative history but also proposes a radical departure from conventional methodologies of creation. Such perspectives underscore a broader dialogue about the role of AI in creative industries, the essence of creativity, and the future of copyright in an increasingly digitized world.

1. Challenges in the Application of Fair Use Doctrine Triggered by AI Creation

The fair use doctrine within copyright law is designed to mediate the dynamic between copyright holders' rights and the public interest, with the goal of safeguarding the collective welfare and fostering cultural and societal growth. Despite these intentions, the equilibrium sought between proprietary rights and the rights of others, as well as the balance between private interests and public benefits, has not been fully realized. This shortfall can be attributed to various factors, including legislative technology and the practical realities of enforcement. The advent of AI has precipitated a technological revolution and necessitated industrial adjustments, thereby exacerbating the existing limitations of the fair use doctrine. As AI continues to evolve, its capacity to create, replicate, and disseminate works at an unprecedented scale presents novel challenges that the current framework of copyright law, including the fair use doctrine, struggles to adequately address. These challenges highlight the need for a reevaluation of the doctrine to ensure that it remains relevant and effective in a landscape increasingly dominated by digital and AI-driven creations. This reevaluation must strive to more effectively balance the rights of copyright holders with the imperative of promoting access to information, cultural enrichment, and the facilitation of innovation in the public interest.

1.1 Copyright law excludes algorithm authors

From a legal perspective, the establishment of legal entities is predicated on the concept of free will. Natural persons acquire legal status and capacity by virtue of their ability to think, perceive, decide, and act autonomously, thereby enabling them to exercise rights and assume corresponding obligations as stipulated by law. However, AI lacks the essential attributes of

self-awareness, emotions, subjective experiences, and the comprehensive cognitive and emotional intelligence inherent to humans. As a result, AI fails to meet the requisite criteria for legal personhood, particularly in terms of key characteristics such as social interaction and ethical perception.

Within the framework of copyright law, the prevailing romantic authorship perspective, which places emphasis on "author-centeredness," has shaped the copyright system into one primarily focused on protecting the rights of authors. Algorithmic authors, devoid of human-like consciousness, do not possess qualified legal status under this framework. Specifically, from the perspective of personality theory, which underscores the personal interests of natural persons as a foundation for the protection of works, a "kinship relationship" is established between the author and their work, with the work serving as a spiritual extension of the author. However, personality theory asserts that personality originates not from intellect but from the capacity for active thinking and self-expression—the essence of human will and freedom. In contrast, AI creation is driven by task-based algorithms that produce specific outputs upon receiving instructions, devoid of the emotive self-expression characteristic of human authorship. Consequently, AI lacks the essential qualities to be recognized as authors under personality theory.

Moreover, the incentive theory of copyright posits that copyright law aims to incentivize authors through the grant of proprietary rights, thereby fostering the sustainability of creative endeavors. However, entities beyond human beings, such as animals or AI, lack the capacity to comprehend such incentives, rendering recognition of their authorship qualifications unnecessary.

In legal practice, both domestically and internationally, legislation and judicial decisions have consistently denied the subjectivity of algorithmic authors. For instance, the United States Copyright Office refused to register "Zarya of the Dawn," a comic generated using the Midjourney AI system, on the grounds that authorship must be limited to human creators. Similarly, the European Court of Justice has upheld the principle that copyright applies only to original works, defined as the author's own intellectual creation. However, in China, a landmark case involving copyright infringement of AI-generated images yielded a different outcome. The court recognized the images as protected works, emphasizing their originality, albeit acknowledging the human input in the creation process. Ultimately, while AI-generated works may be afforded copyright protection, they are still fundamentally creations facilitated by human agency and tools.

1.2 The absence of fair use provisions for AI.

Copyright law serves not only to grant rights but also to impose limitations on those rights, aiming to balance societal demands for knowledge and information while regulating multiple interests. In China's copyright law fair use system, three rules ostensibly provide defenses against infringement for AI creations: the "personal use clause," the "teaching and research use clause," and the "appropriate quotation clause."

The "personal use clause," outlined in Article 24, Paragraph 1 of the Copyright Law, permits "individual study, research, or appreciation" using published works. However, this provision presents limitations concerning both the subject and object. The category and quantity of "individuals" are narrowly defined, excluding legal entities and organizations engaged in non-profit activities. As AI lacks recognition as creators, only the technical development team behind it can be considered the subject, further complicating compliance with this clause.

The "teaching and research use clause," articulated in Article 24, Paragraph 6, allows for limited reproduction of works for educational or scientific purposes. Yet, the commercial nature of most AI creations poses challenges in justifying compliance with this provision. Additionally, the expansive data requirements of AI often exceed the notion of "limited reproduction," further complicating its applicability.

The "appropriate quotation clause," as per Article 24, Paragraph 2, permits the appropriate quoting of published works for specific purposes. In the output stage of AI creation, ensuring compliance with this clause is less contentious, provided the generated content adds transformative value by incorporating abstract elements or novel perspectives.

Achieving legality at the output stage of AI creation is relatively straightforward under current copyright law, contingent upon developers avoiding substantial similarity to existing works. However, the input stage presents challenges in obtaining rich data information inputs while mitigating infringement risks. While acquiring legitimate copyright authorization is a viable solution, the transaction costs associated with precise licensing or voluntary permission are prohibitively high, rendering this strategy impractical.

Addressing these challenges is crucial to fostering the development of AI creation within the existing copyright framework. However, the complexities inherent in balancing innovation with copyright protection necessitate nuanced solutions to ensure compliance while facilitating progress in AI development.

1.3 The shortcomings of the three-step test.

The "three-step test," as derived from the Berne Convention, the TRIPS Agreement, and the WIPO Copyright Treaty, and subsequently incorporated into China's Copyright Law, diverges from a purely "factor-based" paradigm. Instead, it adopts an approach characterized by "enumeration" and "literalism," wherein specific situations of fair use are exhaustively enumerated rather than subject to comprehensive examination based on various factors.

The first step of the three-step test involves the notion of "certain special cases," necessitating that any determination of fair use must align with statutory conditions. However, the finite nature of the enumerated situations imposes constraints on the applicability of fair use, particularly amidst the expansion of copyright rights. Under this approach, the interpretation of "special cases" is often confined to textualism, potentially overlooking the evolving nature of new technologies and their implications. A more balanced assessment, grounded in public policy considerations, is crucial to addressing emerging phenomena while safeguarding the interests of both rights holders and users.

The second step of the three-step test stipulates that fair use "shall not affect the normal exploitation of the work." However, the interpretation of "normal exploitation" tends to be broad, encompassing both existing and potential avenues of exploitation that benefit rights holders. This interpretation extends protection to anticipated conflicts with rights holders' interests, even if such conflicts were unforeseen at the time of the work's creation. Technological advancements, such as virtual reality and AI, have reshaped traditional methods of utilizing works, underscoring the need for a nuanced understanding of "normal exploitation."

The final step of the three-step test mandates that fair use "shall not unreasonably prejudice the legitimate interests of the rights holder," embodying the principle of proportionality in copyright law. However, ambiguity often surrounds the determination of what constitutes "reasonable" prejudice. From the perspective of rights holders, the reasonableness of fair use hinges on the purpose and means adopted, as well as the existence of alternative means that cause less harm. However, the assessment of reasonableness should not disregard ethical and moral considerations, nor should it subordinate public interest to individual rights. Failure to maintain this balance risks undermining the diverse value objectives of the fair use system, replacing them with a singular focus on protecting authors' rights.

2. The optimization strategy of the fair use system in AI creation.

2.1 Expansion of Personal Use Terms

The foremost strategy often involves minimal adjustments within the existing framework of "fair use." One avenue for exploration is leveraging legal interpretation to advocate for "personal use" as a defense for data acquisition. The prerequisites of "research, study, or appreciation" are not exclusive to human creation but are also integral to AI. The challenge lies in establishing a connection between "algorithm" and "human" to bridge this gap.

The crux of transforming "algorithm" into "human" hinges on the flexibility of copyright law in regulation and theory, specifically in depersonalized terms. A pertinent precedent is the concept of "legal person authorship," which allocates copyright to economic actors capable of fostering cultural market development. This approach is supported by the formation of "legal personhood" based on shared will and group personality. Transforming "algorithm" into "individual" entails finding commonalities between algorithmic and individual creation.

From a creative process standpoint, traditional Symbolism posits that AI operates through physical symbol systems and limited rationality principles. While both humans and computers function as symbol systems with logical reasoning abilities, the disparity lies in responding to complex situations. Connectionism, on the other hand, mimics biological neural systems' learning and adaptation, simulating the human brain's information processing capacity. With adequate data and computing resources, it can even replicate consciousness, the driving force behind human creativity. Consciousness guides themes, materials, and inspiration, imbuing works with personalized and emotional nuances.

Regarding creative outcomes, visual distinctions between AI-generated and human-created content are diminishing with intelligent technology advancements. AI-generated content increasingly meets basic quality standards and efficiency levels, with mechanized and standardized features forming a distinct digital aesthetic genre. Artists like Refik Andol pioneer data and machine intelligence aesthetics, viewing AI as a collaborator of human consciousness. This perspective, rooted in "work-centricism," emphasizes evaluating artwork based solely on its aesthetics, form, meaning, and expressive power, fostering innovative artistic development.

Furthermore, the judiciary's vigilance in judging works' value shapes authorship concepts. European Court of Justice case law acknowledges that a work's ability to "produce aesthetic effects" doesn't determine copyright protection. Judicial restraint in making aesthetic judgments ensures equitable treatment of all works under the law. This restraint provides a foundation for non-human copyright protection mechanisms, excluding emotional and tasteful elements from judicial scrutiny.

In sum, navigating copyright law's existing framework entails aligning AI creation processes with legal interpretations, recognizing AI's creative potential, and ensuring equitable treatment of AI-generated works within the judicial system.

2.2 Transitioning from Sequential Consideration to Comprehensive Consideration

In China's Copyright Law, limitations on rights closely follow the criteria of the "three-step test" established in international treaties, outlining exceptions to rights through enumerated lists. However, this poses a challenge for courts addressing the transformative impact of AI technology. Strict adherence to deductive rules often renders existing exceptions inapplicable, resulting in the rejection of AI-generated creations at the "first step" of the "three-step test." In contrast, the United States' "fair use" doctrine maintains openness, allowing courts to consider various factors beyond statutory text when determining fair use.

Chinese courts have historically adapted legislation when facing disputes arising from new technologies. For instance, in addressing "special circumstances" in the first step of the "three-step test," courts have expanded applicable situations by exercising discretion rather than relying solely on statutory terms. Additionally, they refer to the more flexible "four-factor rule" to address abstract deficiencies in the second and third steps. However, legislative flaws may lead to inconsistencies in rulings and fuel judicial lawmaking, resulting in legal system disorder.

The "three-step test" should be viewed as a constraint on provisions concerning "limitations on rights" rather than a direct limit on copyright. Thus, its focus should not solely be on the reasonableness of using works but on the reasonableness of limiting such use. Clearer examination rules can enhance its restrictive function, aligning with technological trends.

Within the "four-factor" rule, despite the extensive use of works in AI creation's learning phase, the purpose is to extract factual information for functional purposes rather than reproduce the original work. This type of use does not directly impact the original work's commercial value or potential market share. Therefore, through comprehensive consideration, AI creation has space to pass examination, even if it may not fully meet traditional standards.

2.3 Supplemental Fair Use Terms Involving AI Creations

The term "limitation of rights" in the Chinese Copyright Law reflects an inherent bias towards the "author-centric" perspective, focusing solely on rights holders without adequately considering the rights of users. This terminology implies a negative evaluation of using works, hindering innovation and technological development. To address this, renaming "limitation of rights" to "fair use" would better reflect the concept's purpose and provide clear guidelines for users, shifting towards a more balanced approach.

Data mining, crucial for AI creation, often conflicts with traditional copyright systems. While data itself isn't protected by copyright, the arrangement and combination of data can be. To accommodate technological advancements, the EU and Japan have established exceptions for text and data mining, providing regulatory support. Japan, for instance, encourages AI data training while respecting copyright holders' rights. China could benefit from adopting similar exceptions, perhaps focusing on a "non-appreciative exception" to cover data mining for algorithmic processing purposes without disseminating expressive content to the public.

Regarding rights reservation, the EU allows authors to selectively exit from data mining permissions, while Japan takes a more open stance, prioritizing shared data and flexible utilization. China must consider whether to prioritize author rights or technological development when deciding on rights reservation. Overall, adopting fair use principles and implementing flexible exceptions can foster innovation in AI creation while respecting copyright interests.

2.4 Experimentation with AI Taxation Systems

The economic relationship between human and artificial creativity in the context of intelligent creation raises complex issues regarding incentives, compensation, and market dynamics. As AI becomes capable of producing a vast array of literary and artistic works, questions arise about the necessity of additional incentives or rewards for human creativity.

From the perspective of incentive theories, the emergence of AI as an imitator rather than a creator challenges traditional notions of incentivizing creativity. While intelligent systems can replicate human works after being trained on vast amounts of existing creations, human creativity remains the source material for this imitation. Therefore, arguments for abolishing compensation systems for human creators would only be fair if intelligent creation completely eliminates the need for human works.

The establishment of compensation systems can take different forms, such as front-end payment systems and back-end payment systems. Front-end payment systems involve users agreeing to compensate for their works being used as training data for machine learning. However, this model faces practical challenges such as standardization of rights limitations, payment security, and enforcement of compensation agreements.

In contrast, back-end payment systems involve a one-time taxation system imposed on AI technology developers and application providers. This approach generates revenue to support human authors and improve their living conditions without significantly impacting the

technology industry. Additionally, output-oriented taxation systems can incentivize open sourcing of works and reduce barriers to content acquisition.

The advantages of back-end payment systems include promoting optimization of profit strategies for technology providers, reducing barriers to content acquisition, and establishing reasonable taxable income and tax rates based on market dynamics. Overall, back-end payment systems offer a balanced approach to compensating human creativity in the era of intelligent creation.

CONCLUSION

The emergence of AI in creative production presents unique challenges to copyright laws, necessitating careful consideration and adaptation. While AI technology continues to advance, copyright laws must evolve to accommodate these changes without hindering technological progress. Moreover, it's crucial to design incentive mechanisms that foster a harmonious creative ecosystem for both human and AI creators.

To address these challenges within the context of China's AI development and copyright laws, a tiered improvement plan for the reasonable use system of AI creation copyrights is proposed:

1. Interpretation of "Personal Use" Clause: The existing "personal use" clause should be interpreted to encompass AI data acquisition for research, study, or appreciation. Recognizing that these activities are essential for both human and AI creators, this interpretation provides a defense for AI creators in accessing data.

2. Reform of the "Three-Step Test": The traditional "three-step test" should depart from closed and abstract interpretations. Instead, it should adopt a more flexible approach, allowing for comprehensive assessments of new rights restriction scenarios. This flexibility ensures that copyright laws remain adaptable to the evolving landscape of AI creation.

3. Introduction of Reasonable Use Clauses for AI Creation: New reasonable use clauses should be added specifically for AI creation. These clauses would permit the use of AI-generated works without the permission of copyright holders, provided that the AI's generation behavior does not intend to appropriate the thoughts or feelings expressed by others. This approach balances the interests of creators while fostering innovation in AI-generated content.

4. Exploration of AI Taxation Systems: Consideration should be given to implementing AI taxation systems to create new revenue sources to support human authors' work and improve their living conditions. By alleviating conflicts between human authors and algorithmic authors, such taxation systems promote fairness and sustainability in the creative ecosystem.

Overall, these proposed measures aim to ensure that copyright laws effectively accommodate the rise of AI in creative production while upholding principles of fairness, innovation, and societal benefit. By embracing technological advancements and fostering collaboration between human and AI creators, copyright laws can contribute to the continued growth and evolution of the creative landscape.

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