

Copyright Protection for AI-Generated Content: A Study Perspective from Chinese Law

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Abstract: The rapid proliferation of AI technology, marking the transition from weak AI to strong AI, has catalyzed a surge in AI-generated content across various domains. This transformation has brought into question the protection of intellectual property rights associated with AI-generated works. This paper embarks on an exploration of the evolving framework for protecting AI-generated content within the context of Chinese law. It delves into the multifaceted dimensions of this issue, scrutinizing copyright disputes arising from the innovative nature of AI content generation. Furthermore, it critically analyzes judicial practices to discern the evolving legal stance regarding AI-generated works, distinguishing cases where protection is granted from those where it is denied. In response to the challenges posed by this nascent field, the article also proposes a set of strategies geared towards fortifying the protective mechanisms for AI-generated content. These strategies encompass the development of classification criteria based on the purpose of content generation, the enhancement of intellectual property registration and verification mechanisms, and the promotion of synergy between technological advancements and legal frameworks.

Keywords: AI-generated content, intellectual property rights, copyright disputes, Chinese law, judicial practices

1. Introduction

The rapid progression of AI technology has propelled society from the era of weak AI to the era of strong AI. This transformation has led to an influx of AI-generated content into the public domain. Yet, the framework for safeguarding the intellectual property rights associated with AI-generated content remains shrouded in uncertainty. In response to this evolving landscape, China has promulgated the Interim Measures for the Administration of Generative Artificial Intelligence Services, effective as of August 15 this year. These measures, while significant for regulating the generative AI service industry, leave critical gaps in the protection of AI-generated content [1]. Consequently, the question that needs to be addressed urgently is: how to establish a comprehensive system to safeguard the rights and interests related to AI-generated works?

In addressing this question, this paper embarks on a journey through the intricate interplay between technology, law, and society, with a particular focus on the Chinese legal context. This exploration encompasses the examination of legal disputes, judicial precedents, and the potential avenues for augmenting the protective mechanisms for AI-generated content.

As delve deeper into the ensuing sections, the writer aim to illuminate the complexities that arise in the wake of AI's creative potential, explore the evolving legal terrain, and propose strategies for forging a path towards a more robust protection system for this emerging facet of the digital age. Through this endeavor, this paper endeavor to contribute to the ongoing discourse surrounding the intersection of artificial intelligence and intellectual property rights, fostering a deeper understanding of the multifaceted challenges and opportunities that lie ahead.

2. Copyright Disputes Concerning AI-Generated Content

At present, for the copyright protection of AI generated works, the main controversy focuses on whether the content generated by AI can be recognized as a "work". Some scholars believe that the content generated by AI should not be recognized as a work and should not be protected; another viewpoint believes that the content generated by AI can be recognized as a "work". Another facet of this debate suggests that the protection of AI-generated content can be effectively governed by the anti-unfair competition laws in conjunction with legislation within the framework of the copyright law. Such an approach aims to establish a comprehensive system that defines the attributes of rights, determines rights and liabilities, and transcends the traditional confines of copyright law.

2.1. AI-Generated Content Should Not Be Recognized as Works

One aspect of this ongoing debate focuses on the assertion that AI-generated works lack the essential quality of "originality". Those in this camp fundamentally reject the "objective theory of originality", arguing that while AI-generated content may exhibit external manifestations of originality, it fundamentally lacks the expression of human free will. This perspective aligns with the overarching legislative intent of copyright law, which is inherently "people-oriented". Consequently, it argues that recognizing non-human intellect as eligible for copyright protection is both illogical and contrary to the original legislative intent [2]. Prof. Wang Qian, in his book "Re-examining the Characterization of Artificial Intelligence-Generated Content in Copyright Law", underscores the necessity of human intellectual input as a prerequisite for identifying a work in copyright law. He cited the case of macaque monkey selfie to illustrate that "whether or not it is the fruit of human intellect" should be a necessary condition for the identification of works in copyright law [3]. This perspective argues that recognizing non-human intellect as works is not only logically flawed but also runs counter to the initial legislative intentions of copyright law.

Although human will is not represented during the whole process of AI-generated content, it is still unrealistic to completely deny the intellectual contribution of humans in creating AI-generated content. This paper argues that it is impossible to disregard the creativity that AI-generated content exhibits in its outward manifestations. Therefore, it is imperative that the protection of AI-generated content be addressed with a nuanced categorical framework.

2.2. AI-Generated Content Should Be Recognized as Works

If the content generated by AI is recognized as a work, then the generated content should meet the requirements of "originality", encompassing both independent creation and a certain degree of creativity. However, a significant challenge arises from the fact that AI, as a non-natural person, cannot be acknowledged as an author under conventional copyright law. Consequently, determining the rightful copyright owner of AI-generated content becomes a formidable hurdle in establishing its status as a work [4]. The concept of "creativity" adds further complexity to the debate. The criterion of "certain creativity" lacks a universally objective standard. Nonetheless, prevailing scholars believe that creative works typically involve elements such as certain selection, trade-offs, designs or combinations, or the external form of expression has aesthetic and cognitive functions [5].

2.2.1. Clarifying Rights Attribution and Responsibilities through Copyright Legislation

The premise of this view is to recognize AI-generated content as a work, and the reasons for protection include "harmonization of rights and obligations" and "incentive to invest". According to the "harmonization of rights and obligations" theory, AI's development and utilization frequently lead to infringement issues. Responsibility for these infringements should rest with the developer or user of AI, while AI-generated works should simultaneously be granted corresponding rights. This approach aims to strike a balance in the allocation of rights and obligations within the AI ecosystem [6]. The "incentive investment" theory posits that affording AI-generated content the legal attributes of works create a more conducive legal environment for AI development. Such recognition is believed to stimulate and facilitate the rapid advancement of AI science, technology, and industry. Granting copyright protection to AI-generated works ensures that relevant entities can obtain the returns commensurate with their contributions, thereby incentivizing further developments in AI technology and engendering enthusiasm among AI creators [7].

Addressing the scientific and rational protection of AI-generated content within the realm of copyright law has prompted diverse proposals, including the "proposed author", "user" and so on. The "proposed authors" perspective contend that the provisions of the existing law on civil subjects do not limit the civil subjects to natural persons. They advocate for the establishment of a virtual legal persona for the protection of intellectual property rights of AI-generated content, so that the protection of AI-generated content is the protection of a "human being" in the sense of the law [8]. In this way, the protection of the content generated by AI is protecting the results of "human beings" in the legal sense, thus formally avoiding the legal obstacle that the copyright law cannot recognize and protect the results originated from non-human beings as works. Conversely, the "user" perspective asserts that the content generated by artificial intelligence should be attributed to the person who uses artificial intelligence. Advocates of this perspective argue that users play a more important role in shaping the final generated content compared to AI designers, who primarily provide code or data with limited direct involvement in the content's ultimate form [9].

While all four viewpoints possess a degree of validity, the author acknowledges certain limitations. For instance, the "the unity of rights and obligations" perspective may allow legal entities to profit from AI authorization despite the responsibility of AI developers in the development process. Additionally, the "incentive investment" theory, while seemingly logical, does not appear to substantially hinder the development of the AI industry in the absence of AI-generated content protection. Artificial intelligence industry will develop rapidly, in which the interests do not come from the copyright of the generated content, but mostly through the authorized use of the way to obtain benefits. Furthermore, the issue of copyright attribution for AI-generated content remains unsettled. The "proposed author" perspective faces issues concerning the clarity of rights attribution, especially when the AI owner often retains a substantial role within the subject composition. The "user theory", on the other hand, may become increasingly untenable in an era marked by the ascendancy of strong artificial intelligence, wherein users play a diminishing role in content generation as AI achieves independence from human assistance.

2.2.2. Regulating the Protection of AI-Generated Works through Anti-Unfair Competition Laws

Outside the field of intellectual property law, utilizing the theoretical foundation and adjustment means of the anti-unfair competition law offers an alternative approach to address the multifaceted challenges posed by AI-generated works. This strategy capitalizes on the inherent flexibility of anti-unfair competition law to establish new standards, aligning with the commonalities shared between generative artificial intelligence and broader municipal macro-regulation. These shared elements

encompass notions of fairness, transparency, and the allocation of responsibility, mirroring the regulation required for generative artificial intelligence.

In the current situation where generative artificial intelligence services are full of various infringement problems in the training data and ambiguous in the legal characterization of the generated content, they should take advantage of the theoretical flexibility of the anti-unfair competition law to actively participate in the development of new standards to deal with the multiple challenges posed by artificial intelligence. The theoretical flexibility of the law of unfair competition should be utilized to actively participate in the development of new standards needed to address the multiple challenges posed by AI [10].

From the author's perspective, anti-unfair competition law is fundamentally concerned with adjusting economic market dynamics and thwarting unfair business practices. While it may be a subject of legal contention, the crux of the issue surrounding generative AI does not center on competition between individual AI developers. Instead, it presents a complex contradiction involving numerous stakeholders, including creators, generative AI users and generative AI service providers. This infringement, although intersecting with the principles of anti-unfair competition law to some extent, also presents unique challenges that may not be entirely addressed by existing legislation. One key challenge lies in defining the competition subjects and their roles clearly within this evolving landscape.

3. Judicial Practices Related to AI-Generated Content

As AI-generated works proliferate, courts grapple with the intricate question of whether these creations should be afforded the protective mantle of copyright law. To shed light on this evolving landscape, this paper analyzes specific cases that have shaped the discourse surrounding AI-generated content within the purview of Chinese law.

3.1. AI-Generated Works Not Protected under Copyright Law

Our first case, Feilin Law Firm v. Baidu Netcom Technology Co., Ltd., revolved around the recognition of the graphic portion of an article as a "work of authorship". At the heart of this dispute lay a fundamental question: could the graphics, generated by artificial intelligence based on data, be deemed as creative works worthy of copyright protection? Baidu.com argued that the graphics in the article were generated by artificial intelligence based on the data, and that the differences in the graphics were the different shapes presented by the changes in the data, rather than differences based on creation, and could not reflect a certain screening, design or combination, and therefore could not be recognized as a work. Philip Law Firm claimed that the article published by Baidu deleted the "Introduction", "Search Overview", "Annual Trend Chart of the Number of Cases in the Movie Industry" and the "Note" at the end of the work in question. According to Article 10 of China's current Copyright Law, "the right to protect the integrity of works, i.e., the right to protect works from distortion or alteration". Therefore, the core of determining whether Baidu violated the right to protection of the integrity of works lies in whether Baidu's deletion of the contents of the "Introduction" and "Search Overview" of the work in question was a distortion or alteration of the original work.

The Court of Second Instance critically examined the deleted parts of the article published by Baidu. It found that these sections accounted for about 20% of the work and expressed the original content in a different manner. The "Introduction", "Search Overview" and the end of the "Note" provided unique insights into the author's data collection methods and purpose of creation. Therefore, the Court of Second Instance determined that these deletions amounted to a distortion of the original work, thus affirming the protection of the right to the integrity of works under copyright law [11].

3.2. AI-Generated Works Protected under Copyright Law

In the case of Tencent Computer Systems Co., Ltd. v. Shanghai Yingxun Technology Co., Ltd., the Chinese Courts for the first time recognized an AI-generated article as a protected work. In August 2018, Tencent first published a financial article on its website, with a note at the end stating that "this article was automatically written by Tencent robot Dreamwriter". On the same day, Yingxun Technology published the same article on its operational website. Tencent argued that the copyright of the article in question should belong to it, and that the behavior of Yingxun Technology infringed on its right to disseminate information on the internet and constituted unfair competition [12].

In January 2020, the Shenzhen Nanshan District Court, on the basis of the facts ascertained, conducted a comprehensive analysis. It determined that the article in question was created by the creative team, including the editorial team, product team and technical development team, under the auspices of the plaintiff, using Dreamwriter software, and that the article as a whole reflected the plaintiff's demand and intention to publish stock review articles. Consequently, the court recognized the article as a work protected by China's copyright law. This landmark decision marked the first instance in which an AI-generated article was acknowledged as a work of legal personhood.

The implications of this case reverberate far beyond this singular dispute. It sets a precedent for recognizing the creative contributions of AI, as it underscores that the collaborative efforts of human creators guiding AI's actions can indeed result in original works deserving of copyright protection. This pivotal moment in the evolution of copyright law and AI-generated content serves as a testament to the ever-evolving relationship between technology, creativity, and legal frameworks.

4. Enhancing the Protection Pathways for AI-Generated Content

With the landmark judgment confirming AI-generated works' eligibility for copyright protection and the issuance of the Interim Measures for the Administration of Generative Artificial Intelligence Services, the path to protecting AI-generated content in China has seen significant strides. However, challenges persist in defining the extent of human intervention required for copyright recognition and addressing the contentious issue of rights attribution. The existing legal norms in the Interim Measures, while a crucial step, remain relatively surface-level, lacking in-depth judicial guidelines. To enhance the protection of AI-generated content, it's imperative to further develop and refine these legal frameworks.

4.1. Analyzing Classification Based on the Purpose of Generation

One promising approach to navigating the complexities of AI-generated content protection lies in classification based on the purpose of generation. This pragmatic strategy acknowledges that the protection of AI-generated content is closely tied to its intended use. It recognizes that if AI-generated content remains unprotected, the interests of various stakeholders, including users, AI designers, audiences, and human creators, may be compromised. First, AI's reliance on existing human-generated content data enhances its output efficiency, but this efficiency can inadvertently flood the public domain with a plethora of similar content. This overflow of content may dampen the creative enthusiasm of human creators and potentially result in more infringement issues. To mitigate these concerns, the implementation of a registration system could offer a viable solution. Secondly, the strong artificial intelligence AI-generated content should not be solely attributed to users or AI designers. Instead, it should be categorized based on its intended purpose. Content generated for personal enjoyment or entertainment should be subject to limitations. In such cases, AI functions as a tool for individual use, akin to a high-performance search engine. Therefore, AI-generated content for personal purposes should have restricted copyright protection and mandatory attribution to AI to discourage the proliferation of highly similar works [13]. Conversely, content generated

independently by individuals or legal organizations for certain commercial profit purposes should receive reasonable protection. This distinction helps strike a balance between safeguarding economic interests and preserving the creative spirit of human creators.

Content generated by AI for the purpose of personal appreciation or entertainment needs is mainly generated by individuals using AI technology through websites or application software, such as individuals using Chatgpt and other similar AI for chatting, consulting, inputting simple commands to generate simple text and graphic works, or using AI software to filter information and complete personal learning or work tasks, in which case, AI is like an artificial intelligence that can be used for the purpose of commercial profit. In these instances, AI functions as a tool for personal use, resembling a high-performance search engine tailored for individual applications. For such AI-generated content, it should not be granted full copyright protection. Instead, it should be restricted in terms of distribution and authorship rights. Mandatory attribution to AI as the content generator is crucial to curb the proliferation of highly similar works in the market.

Conversely, when individuals or legal organizations utilize AI like ChatGPT to generate advertising plans, self-media copy, novels, articles, design drawings and other content, different considerations apply. Allowing this content to enter the public sphere can contribute to social and cultural enrichment, but it may also give rise to copyright infringement problems. In such scenarios, individuals or legal organizations should be required to take the initiative to claim the rights of AI-generated content, and register their intellectual property rights to clarify the ownership of copyrights. A notable precedent is the Tencent Dreamwriter case, where Tencent orchestrated the creation of AI-generated content. Tencent purchased real-time databases on sports, finance, and economics, subsequently arranging for software engineers to compile writing templates and decorative elements into a computer program. In cases where the initial AI-generated content did not meet requirements, senior sports, finance, and economics reporters collaborated to correct and enhance the content. This collaborative process resulted in a product that clearly met the criteria for recognition as a "work" [14]. To determine whether protection should be granted to such AI-generated content, they should consider several elements: the formation of the artificial intelligence algorithm model and the degree of association with the leading creators, the extent of human involvement in the AI content generation process (including specific input instructions), the degree of control and decision making over the details of the generated content, and the ultimate modification, processing and review of the AI-generated content by the lead creator [15].

In cases where a dominant creator utilizes AI to generate content for commercial purposes and actively participates in the content creation process, the content possesses intrinsic economic value and is deserving of protection. While the dominant creator's rights should be acknowledged, the involvement of AI technology may warrant some adjustments in the rights enjoyed. Balancing the rights of purely human creators and AI-aided content, it may be appropriate to reduce the level of copyright and neighboring rights protection for AI-generated works. This ensures that those investing in content creation can obtain their deserved returns without diminishing the enthusiasm of human creators. Ultimately, this approach fosters positive incentives in the creative market.

4.2. Strengthening Intellectual Property Registration and Verification Mechanisms

AI-generated content possesses unique characteristics, including exceptionally high creative efficiency, quality variance, and the need for human-defined originality. These attributes necessitate a higher threshold for copyright acquisition and protection. Leveraging registration systems offers a more scientific and reasonable approach compared to traditional copyright acquisition methods.

Intellectual property is an exclusive right centred on the right of exclusive implementation, as a legal absolute right, its exclusivity and validity need to go through the application, examination, registration and other legal procedures to confirm the right. So it is extremely important to strengthen

the intellectual property rights registration and certification system. Considering AI's characteristics, such as efficiency and potential risks of infringement, a dedicated registration standard for AI-generated content can be established. This standard should align with AI's nature and strengthen the registration process, leveraging existing technologies to enhance proof mechanism. Under this registration system, the AI-generated content that wants to obtain copyright should be registered by the user, i.e., the leading generator to claim the right to apply for registration, and the technicians of the relevant departments will conduct audits according to the aforementioned standards. Content that passes these audits can be officially registered, with blockchain and similar technologies employed to maintain original evidence [16]. In the two aforementioned judicial cases, blockchain technology and notary platforms were used to retain original web evidence. This approach streamlines content management and facilitates future copyright protection efforts.

Taking the purpose of AI generation as the entry point, the protection of AI-generated content avoids the problems brought by "one size fits all", and at the same time, better grasps the balance between AI-generated content and human creation, and the implementation of the registration system should be based on the principle of prudence and fairness, so that the society can enjoy the dividends created by AI technology and avoid its impact on human public interests. The implementation of the registration system should be based on the principles of prudence and fairness, so that society can enjoy the dividends created by AI technology and avoid the impact on human public interests.

5. Conclusion

In conclusion, this paper delved into the intricate legal landscape of AI-generated content and its copyright protection. The emergence of artificial intelligence in content creation has posed challenging questions about authorship, ownership, and the need for updated legal frameworks. Our exploration began by addressing the fundamental question of whether AI-generated content should be afforded copyright protection. There is no clear consensus in the legal community on this issue, with different jurisdictions and courts taking different positions on the matter. This ambiguity underscores the pressing need for comprehensive and adaptable legal guidelines in the face of evolving technology. To tackle these challenges, this paper proposed a classification system based on the purpose of AI-generated content. This approach recognizes the diversity of AI-generated works and suggests that protection should be tailored to the intended use. While content generated for personal enjoyment or entertainment may not require full copyright protection, works created for commercial or profit-driven purposes should be subject to more stringent legal safeguards. This paper also highlighted the importance of implementing robust intellectual property registration and verification mechanisms, specifically designed to address the unique characteristics of AI-generated content. Given the rapid pace at which AI can generate content, such mechanisms are essential to protect the rights and interests of creators and users. Moreover, this paper emphasized that legislative improvements are vital for the effective operation of the proposed registration system. Higher-level legal norms and well-defined standards are essential to provide clarity and consistency in the evolving landscape of AI-generated content creation.

In sum, this paper has contributed to the ongoing discourse surrounding AI-generated content and its legal status. As AI plays an increasingly pivotal role in content creation, it is time to refine the legal framework to ensure fair protection for all stakeholders. By addressing these multifaceted challenges, they can foster an environment that encourages innovation and creativity while safeguarding the rights of both AI systems and human creators in our ever-changing digital landscape.

References

- [1] *Interim Measures for the Management of Generative Artificial Intelligence Services*. 2023, 07, 15.

- [2] Wang Qian. *On the Characterisation of Content Generated by Artificial Intelligence in Copyright Law.*(2017). *Legal Science (Journal of Northwest University of Politics and Law)*,05,148-155.
- [3] Wang Qian.*Re-examining the Characterisation of Content Generated by Artificial Intelligence in Copyright Law.*(2023).*Politics and Law Forum*,04,16-33.
- [4] Xiong Qi. *Copyright determination of artificial intelligence generated content.* (2017).*Intellectual Property Rights*,03,3-8.
- [5] Yi JiMin. *Are Artificial Intelligence Creations Works?.*(2017).*Legal Science (Journal of Northwest University of Politics and Law)*,05,137-147.
- [6] Lei Lili,Zhu Shuo. *A preliminary study on the protection of the rights of artificial intelligence-generated manuscripts--analysis based on the Dreamwriter copyright case.* (2022). *Media Watch*,05,62-69.
- [7] Liu Ying. *A preliminary study on the copyright law protection of artificial intelligence generated objects.*(2017). *Intellectual Property Rights*,09,44-50.
- [8] Wang Qian.*Re-examining the Characterisation of Content Generated by Artificial Intelligence in Copyright Law.*(2023). *Politics and Law Forum*,04,16-33.
- [9] Cong Lixian,Li Yonglin. *Identification of works and copyright attribution of generative AI--Taking ChatGPT's work application scenario as an example.* (2023). *Journal of Shandong University (Philosophy and Social Science Edition)*,04,171-181.
- [10] Stephen Schuler,Jun Huang,Jinqi Ju. *Artificial Intelligence and Unfair Competition - Uncovering an Underestimated Cornerstone of the Artificial Intelligence Regulatory Field.* (2022). *Competition Policy Research*,03,5-23.
- [11] *Appeal of Copyright Ownership and Infringement Dispute between Beijing Filin Law Firm and Beijing Baidu Netcom Technology Co.* Beijing Intellectual Property Court.Civil Judgement.(2019) Beijing 73 Civil Final No. 2030
- [12] *People's Court Daily.*2021,01,09:04.
- [13] Yu, Wenwen. *Revisiting the Attribution of Interests in Artificial Intelligence Generated Content in Copyright Law.*(2022). *Journal of Chinese Academy of Social Sciences University*,02,89-100+146-147.
- [14] Luo Jian. *On the Copyright Protection of Works Generated by Artificial Intelligence--Taking the Case of Tencent Suing the Copyright Dispute of "Home of Online Loans" as an Example.* (2022). *Law and Society*,09,43-44.
- [15] *Status of Intellectual Property Protection in Guangdong Courts* (2020).2021,04.
- [16] Cao Bo. *How Copyright Law Responds to the Challenges of Web 3.0: Taking Audiovisual Content as a Sample.*(2023). *Oriental Law*,03,85-97.