Copyright Ownership Issue of AI Painting

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Abstract: Nowadays, AI painting technology has rapidly become popular, and the resulting issue of copyright ownership has increasingly become the focus of attention from all walks of society. This article aims to explore this hot issue in depth. It takes the 'legal status of AI' and 'the allocation of copyright' as the starting point for the research, and then carry out detailed analysis of the dilemma faced by the copyright ownership of AI painting works. By analyzing the views of different scholars and cases, this article finds that the focus of the controversy is concentrated on three key points. Firstly, whether artificial intelligence has legal subject qualification and enjoy independent rights. Secondly, the characteristics and rights attribution model of AI painting works. Thirdly, the profit allocation mechanism between developers and users. Through research, the author found that AI cannot be a subject of rights and software developers as rights holders or developers sharing rights with users is not appropriate. Based on these conclusions, this study argues that the copyright of AI painting works is most feasible and reasonable to belong to the user of the software, and it can also be clarified in advance through the user agreement.

1 INTRODUCTION

In recent years, with the continuous development of generative artificial intelligence technology, AI painting tools such as DALL-E and Stable Diffusion have emerged as the times. They can learn from image data in a large database and generate artistic images autonomously according to text instructions. The emergence of AI painting has brought great impact to society. On the one hand, this technology has reduced the threshold of artistic creation to some extent, encouraging people's enthusiasm for creation. For example, by applying the text-to-image technology, software users can create artworks simply through text. However, on the other hand, the popularity of AI painting poses severe challenges to the traditional copyright system. The issue of copyright ownership of a work in the case where a human only provides initial text instructions and the AI subjectively creates has sparked a great deal of controversy and discussion.

In the issue of copyright ownership of AI painting, the main controversial point lies in whether the copyright should belong to the AI, the software user, or the software developer. Some scholars believe that the work of AI always needs human intervention and can only be regarded as an auxiliary tool, so it can not be the owner of copyright, but the user and the developer of the software both participated in the creative process and thus could both be considered the copyright owner (Li, 2024). There are also some scholars have proposed to grant AI a fictitious subject status, making AI the owner of the copyright of such paintings (Wu & Chen, 2024).

At present, "human-centered" is firmly supported in China. In 2023, in the "First Case of AI Text-to-Image", China recognized that natural persons copyright over the images generated by using AI painting large models under certain conditions for the first time, which aims to encourage the use of artificial intelligence creation (PKULAW.COM, 2024). But the conditions mentioned in it are still to be clarified, and there are still many legal gaps in judicial practice.

The attribution issue of AI painting has not yet been clearly regulated. Based on the different viewpoints of other scholars, this article will discuss the legal status of AI and the copyright allocation of AI paintings, hoping to provide a force and help to solve the problem of copyright attribution of AI-generated art.

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2 ANALYSIS OF THE DIFFERENCES IN THE CREATION OF AI PAINTING AND OTHER TYPES OF AI-GENERATED WORKS

The issue of copyright ownership of AI-generated paintings shares similarities in core controversies with that of other types of AI-generated works, such as texts, music, code, etc. But there are some differences due to the technical process (implementation method, creative process) characteristics and differences in legal practice.

2.1 Technical Process and the Difference in Human Participation

AI painting usually relies on the prompt words and parameter adjustments input by the user. Humans need to repeatedly adjust the prompt words, screen the results, and make post-edits, which may be regarded as a higher degree of "creativity." For example, the creator of the piece Space Opera, Jason Allen, used AI painting software, spent over 80 hours and 900 revisions, then polished by using image editing software to shape the final piece (Li, 2024). However, for text, music and code generation, the user input may be shorter and the generated results would often require less manual adjustment. For example, an article generated by GPT might only need polishing, whereas when composing music, AI might directly output a complete score. Human participation tends to be more about "selection" than "creation," making it more difficult to establish originality in legal terms.

2.2 Differences in Legal Practice

In the "First Case of AI Text-to-Image ", China recognized that natural persons have copyright over the images generated using AI painting large models under certain conditions, aiming at encouraging the use of AI for creation (PKULAW.COM, 2024). The long-term presence of "instrumentalism" in the art may make AI be accepted as a tool more easily. Some scholars point out from the perspective of philosophical instrumentalism that AI is the "product of human technological development" and only exists as a tool in artistic creation. At this stage, AI can imitate the style of artists or assist in creation, but it has not reached the level of replacing artists' creation, emphasizing that AI is more likely to be accepted as a tool by people because of its auxiliary nature (Yi, Unknown). Additionally, artistic creation has traditionally emphasized the result-oriented approach, rather than the process-oriented approach. Traditional painting emphasizes the "audience's reception" and social aesthetic consensus, historical technological shifts (such as the advent of photography) also forced artists to turn to process innovation; and literary or musical fields have more strict requirements for "originality," traditionally emphasizing the author's direct expression, a creative process with personal uniqueness (Yi, Unknown).

3 EXPLORATION OF THE ISSUE OF COPYRIGHT OWNERSHIP IN AI PAINTING

There are three possible rights holders for the copyright of AI-generated art: AI, the software developers, and the software users. The main issues of controversy focus on whether AI has the legal personality to be the copyright owner and how the rights and interests between software developers and software users are allocated.

3.1 Analysis of the Legal Subject Qualification of AI as the Author of Copyright

3.1.1 AI Cannot Be a Legal Person

Some scholars explain from the perspective of legal personality, believing that AI essentially exists as a machine tool and does not have social attributes. It does not conform to the legal subject attributes of natural persons, legal persons and other organizations, and therefore cannot enjoy copyright (Wu & Chen, 2024). In addition, AI lacks physical organization, independent property, and risk-bearing capacity, which do not conform to the characteristics of a legal person (Wu & Chen, 2024). In other words, viewed as a tool created by human beings, AI does not possess the awareness of rights or subjectivity, and the nature of rights is a legal relationship regulates human behavior, so AI, as an object, cannot enjoy independent rights, and therefore AI cannot become the subject of property rights (Ma & Yang, 2024). Some scholars also explain it from the perspective of AI assistance and tool attributes, proposing that the essence of AI is a tool, which relies on human intervention and lacks consciousness, so it is impossible to complete creation independently, and

therefore it is impossible to become a rights subject to enjoy copyright (Li, 2024). There are also scholars who oppose the "man-machine dichotomy" and the "algorithm-only" view, believing that the former mistakenly regards AI as a subject, ignoring its instrumental nature; and the latter unilaterally emphasizes the determinacy of the algorithm, ignoring the creative contribution of human beings at the input end (Guo & Li, 2024). Beyond these, from the perspective of philosophical instrumentalism, the subject needs to possess consciousness and practical ability, while AI is merely the product of human technological development and its agency completely depends on humans (Yi, Unknown). From the perspective of the art field, the core of art creation is emotional connection, but AI can only generate aesthetically pleasing images through data analysis, which is unable to experience or convey human emotions. And art needs to reflect the spirit of the times and convey individual emotions, while AI cannot understand the social and cultural background or actively adapt to changes in aesthetics (Yi, Unknown). Therefore, AI is not suitable to be the subject of artistic creation.

3.1.2 The Disadvantages of AI-Fictitious Subject

Based on the preliminary exploration of the fictitious personality of AI in relevant legislation of the European Union and the United Kingdom and other countries, some scholars believe that the law endows fictitious subjects with legal personality, avoiding the potential risk of infringement in AI painting, encouraging people to participate in creation and the convenience of the attribution and protection of painting works (Wu & Chen, 2024). However, it is untenable to personify AI as a civil subject, because AI has no independent property and no capacity for civil liability (Sui, 2024). Conferring legal personality on AI is not only contrary to the current social consensus, but also is prone to ethical and moral risks. Additionally, it is incompatible with our civil law legal subjects and is likely to have a subversive impact on our civil subject related laws as well (Wu & Chen, 2024).

For the two viewpoints, the author believes that the former should be supported more. In the author's view, the core characteristic of a legal person lies in its ability to independently bear rights and obligations. AI, as a tool created by human beings, lacks self-awareness and independent will, and thus is unable to bear legal responsibility and fulfill legal obligations. If there is a situation where AI infringes on someone else's copyright, it is meaningless to hold AI accountable. Moreover, AI does not have the ability to exercise power, and there is a high probability that it will lead to the situation where AI appears to enjoy rights, but in fact, it is exercised by others on behalf of it, which means it is still human beings that exercises power rather than AI. If AI is given subject status by law to become a legal entity, some of the infringement risks that may exist in AI painting can indeed be avoided. But at the same time, there is also the potential for people to use the legal personality of AI to shift blame, evade obligations that should be borne, and damage public interests. Besides, from the perspective of social ethics, modern law follows a "human-centered". Endowing AI with subject status will blur the boundary between "tool and "subject", causing a series of ethical problems and impacting the current law. So, AI can only be used as a tool but cannot be conferred with legal personality.

3.2 Analysis of Copyright Ownership of Software Developers

Some scholars have proposed that although AI-generated artworks may not appear to be directly created by humans, they are fundamentally based on algorithm technologies developed by humans, reflecting the personalized expression of participants. Therefore, its copyright should belong to the enterprise or developer to whom the technology belongs. For example, in the case of Tencent prosecuting Shanghai Yingxun Technology, the court ruled that the AI-generated article constituted a legal entity work, and Tencent held the copyright (Zhou, 2024). Although some scholars support this view, arguing that while developers do not directly participate in the generative process, their algorithm design forms the foundation of AI creation, and as technology providers, they make decisive contributions to the underlying architecture of the generated works (Wang, 2023). Moreover, software developers have already obtained investment returns through software copyrights, and attributing the copyright of AI-generated artworks to the software owner is more conducive to technology promotion and maintenance (Lu, 2023). However, based on this perspective, the issue of dispersed rights subjects remains to be resolved. The development of AI models involves multiple teams or institutions, making it difficult to determine the rights holders (Wang, 2023). Besides, this perspective only partially considers the personalized involvement of software developers while neglecting the original creative

expression of software users when utilizing AI to produce artistic works.

In addition, there are also some platforms (such as "Wenxin Yige") that explicitly stipulate in their user agreements that the intellectual property rights of AI-generated works belong to the company (Zhou, 2024). The author believes that the point that the intellectual property rights of AI-generated works can be clarified through the user agreement can be supported, since the user agreement is established through mutual negotiation between the software developer and the user, the user's utilization of the software signifies recognition of the intellectual property ownership. This approach can effectively circumvent issues related to profit distribution, rights division, and risk allocation between developers and users. Therefore, the copyright of AI-generated artwork can be clearly defined in advance through user agreements to determine ownership.

3.3 Analysis of Copyright Ownership of Software Users

Some scholars argue that copyright ownership should generally follow the principle of "belonging to the user". Firstly, user contribution is the most direct, as users facilitate the generation of works by paying fees, inputting instructions, and providing materials. Secondly, designers should not reap double benefits. Having already obtained protection through software copyright, they should not additionally enjoy copyright over the artwork (Wu & Chen, 2024). Thirdly, by analogy with the legal person system, treating developers as authors is inapplicable, as developers have already profited through technical licensing, making dual protection unreasonable (Ma & Yang, 2024). Fourthly, universal ownership is unfeasible, as it would significantly dampen the enthusiasm of both developers and users, while the ambiguity of rights holders would make it difficult to safeguard rights (Zhou, 2024). However, this viewpoint is controversial. Supporters argue that the attribution of property rights needs to balance the interests of developers, owners, and users, but it is more reasonable for users to enjoy exclusive property rights. Because developers profit through service charges rather than by dividing the intellectual property rights of user works, and users exclusively retaining these rights can stimulate public creative enthusiasm and promote the sustainable development of AI art (Zhou, 2024). Opponents argue that users' input of prompts, parameter settings, and adjustment behaviors in AI painting fall under the category of "ideation" guidance or literary works, and do not directly participate in the creation of artistic expression, thus should not be entitled to copyright (Zheng & Zhang, 2024). Granting users copyright may also lead to contradictions in legal logic and could increase the infringement risks for AI developers, which would ultimately hinder the development of artificial intelligence technology (Zheng & Zhang, 2024). However, the author believes that compared to other perspectives, attributing the copyright of AI-generated artwork to the software user is the most feasible solution. In China's "First AI Text-to-Image Case", the copyright of AI-generated artwork was granted to the software user (PKULAW.COM, 2024). This reflects the value guidance of the "human-centered principle" upheld by our country in technological development. It can effectively achieve the core goal of copyright law to encourage the creation of works" by granting the copyright of AI paintings to the users of the software. By clarifying the ownership of rights, user motivation can be stimulated, encouraging more people to leverage AI tools for creating high-quality works and reinforcing human dominance in technological applications (Zhou, 2024). Therefore, at present, the solution of copyright attribution to AI painting to the software user not only follows the "human-centered" view, but also conform to the current judicial practice, and also achieves the core goal of the Copyright Law, which has the highest feasibility and rationality.

3.4 Analysis of Joint Ownership of Copyright by Software Developers and Users According to Contribution

Some scholars believe that the attribution of copyright should take into account the contributions of both the developers and the users. Because the developers design the algorithm and training data, providing the creative basis for AI; and the users generate specific works through instructions, the two together constitute a cooperative by default. And in accordance with the rules on joint works in the Copyright Law, the rights may be negotiated and distributed by both parties. For example, China's GPen platform attributes copyright to the user (Li, 2024). However, attributing the copyright of AI painting by solely considering the contributions of developers and users has evident shortcomings. One reason is that contributions are difficult to quantify, making it challenging to balance the distribution of benefits and division of rights between developers and users. The second reason is the difficulty in distinguishing the responsibilities and obligations

that should be borne by developers versus users when facing legal risk liabilities.

3.5 Compromise Solution: Protection of Neighboring Rights

The proposer argues that the protection of narrow copyright faces dilemmas in judging originality and determining authorship, and suggests that AI-generated content should be protected through neighboring rights systems. The proposer argues that the protection of narrow copyright faces dilemmas in judging originality and determining authorship, and suggests that AI-generated content should be protected through neighboring rights systems. Therefore, the protection of neighboring rights can circumvent disputes over legal subject qualification, balance the interests of all parties, and adapt to the needs of technological development (Sui, 2024). Moreover, the ownership of rights should be vested in the user, with the content primarily governed by property rights, and a protection period limitation should be established (Sui, 2024). However, in reality, the solutions for protecting neighboring rights also have significant drawbacks. Firstly, since neighboring rights do not require the generator to be a natural person nor necessitate originality, incorporating AI painting into the neighboring rights system may implicitly acknowledge the protectability of "non-original generated content," which contradicts the legislative purpose of copyright law to "encourage originality". Secondly, the rights subject of neighboring rights cannot be clearly defined. Although some scholars have proposed that the attribution of rights should be granted to users. However, if neighboring rights are granted to AI users, developers may argue based on the "dominance of algorithm design", shifting the dispute from "copyright ownership" to "allocation of neighboring rights" without fundamentally resolving the issue.

4 CONCLUSION

The issue of copyright ownership of AI-generated art is essentially a conflict between technological innovation and legal lag. This article argues that it is more reasonable and feasible to attribute copyright to software users or to clarify the ownership of copyright in advance through a user agreement. On the one hand, the users participate in the creative process through behaviors such as instruction design and parameter adjustment, and their intellectual input meets the requirement of ‘originality’ under the Copyright Law. On the other hand, the ownership can be clarified in advance by user agreement, which can resolve the disputes of the subject according to the principle of autonomy of private. However, it is necessary to pay attention to whether there are unfavorable terms, and avoid developers from invalidating the rights and interests of users through standard terms. So, future legislation should establish a dual safeguard mechanism–recognizing the effectiveness of the user agreement while setting minimum rights retention rules, and clarify the standards for the allocation of risk between developers and users in AI tort liability. Only if it is limited by law while respecting the autonomy of expression can AI creation develop sustainably.

REFERENCES

E. Wu, H. Chen, 2024. Research on copyright issues arising from AI painting in the AIGC era. *Leg. Syst. Panor.* 1-3.

H. Zheng, W. Zhang, 2024. The original contribution of users in AI-generated images - Taking the copyright case judgment of 'AI text-to-image' as an example. *China Publ.* 53-57.

L. Ma, D. Yang, 2024. Identity, property rights, competitiveness: Three fundamental dimensions for understanding AI painting. *Fine Arts* 14-15.

M. Sui, 2024. On the copyright protection model for AI-generated content - Taking China's first 'AI text-to-image case' as an example. *Publ. Print.* 11-18.

P. Guo, Z. Li, 2024. On the qualification of complex AI-generated works in copyright law - Concurrently reviewing the 'AI text-to-image copyright case'. *Sci. Technol. Law* 77-78.

P. Wang, 2023. To whom should the copyright of AI-generated art belong?. *Fine Arts* 44-45.

S. Yi, Between art and technology: Artificial intelligence and painting creation from the perspective of instrumentalism. *J. Jilin Univ. Arts* 41-46, 178.

The Beijing Internet Court released one of the top ten typical cases of 2023: the copyright infringement dispute between Li and Liu - the "AI-generated text-to-image" copyright case. (2024-1-21). https://www.pkulaw.com/pfnl/08df102e7c10f206b28ea71d0a826224c5a46d3dea394abbbdfb.html (Accessed: 2025-5-18)

W. Li, 2024. Exploring the nature and protection of AI-generated paintings from the perspective of copyright law. *Commun.* Copyright 108-109.

X. Lu, 2023. The copyright dispute over AI-generated art. *Forum Rule Law* 286.

Y. Zhou, 2024. Reflections on the rights of AI painting and countermeasures. *Sci. Technol. Commun.* **16**(10), 16-17.