

The Controversy of AI-Generated Technology in Artistic Creation

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Abstract: With the development of AI technology, particularly the emergence of models such as Stable Diffusion, AI-generated artworks have garnered widespread attention. The "creative" capabilities of AI rely on neural network technology, and the legality of its training data has become a focal point of controversy. Simultaneously, the issue of copyright ownership for AI-generated works urgently requires clarification. Furthermore, the impact of AI technology on traditional artistic creation, such as lowering the barriers to creation and threatening employment opportunities for practitioners, has sparked dissatisfaction among artists. This paper employs a combination of literature analysis and case studies to explore the controversies surrounding AI-generated technology in artistic creation, analyzing issues related to the legality of training data sources, copyright attribution, and its disruptive effects on traditional artistic practices. The study proposes strengthening the protection of original works, increasing transparency in AI training data sources, and establishing sound commercial use regulations for AI. These measures aim to balance public interests and individual rights, fostering harmonious development between AI technology and artistic creation.

Keywords: Intellectual property, Intellectual property protection, Artificial intelligence, Copyright protection

1. Introduction

This paper addresses the potential copyright infringement issues arising from the widespread application of AI (artificial intelligence) technology in artistic creation, including disputes over unauthorized use of original image data during AI training and ambiguities in copyright ownership of AI-generated images. It analyzes the impact of AI-generated technology on artists and related practitioners while proposing corresponding recommendations and solutions. Employing a research methodology that combines literature analysis with case studies, the paper conducts an in-depth investigation of existing academic perspectives and practical legal cases to explore their underlying jurisprudential principles and practical implications. By enriching theoretical research and promoting legal development in this field, this study enhances public understanding of the negative impacts brought by AI-generated technology to artistic creation. It advocates for establishing reasonable regulations to guide AI applications, ensuring the protection of artists' rights while prompting society to re-examine the intrinsic value of artistic creation.

2. Current status and analysis of copyright infringement in AI-generated technology

2.1. Legality of training data sources

With the widespread adoption of AI image generation technology and the explosive popularity of models like Stable Diffusion—praised for their efficiency and high-quality outputs—numerous legal challenges have emerged. In 2022, an incident arose where an individual trained an AI model using illustrations by Japanese artist Yoneyama Mai and publicly shared AI-generated images in the comments section of her original works. These AI-generated images exhibited striking similarities to the artist's signature style, replicating distinct features such as color palettes, compositions, and line flows. While the artist herself did not publicly respond, many illustrators and their fan communities condemned this act as a violation of artistic rights.

Under China's Copyright Law, relevant regulations remain ambiguous. Some argue that such practices infringe on artists' reproduction rights or adaptation rights, as AI-generated works closely resemble original creations. However, when training datasets are sufficiently large, similarities primarily manifest in artistic style rather than specific expressions of individual works. While distinct works by the same artist may vary in content, their shared creative habits form a unique personal style recognizable to audiences. AI-generated works, though stylistically aligned with original pieces, differ in both holistic and detailed expressions, making it difficult to establish "substantial similarity"—a key threshold for copyright infringement under legal frameworks. Consequently, such cases cannot be simplistically deemed infringing [1-2].

The Novel AI model, focused on anime and comic-style art, has also sparked legal debates. Its developers acknowledged using images from Danbooru—a platform where users upload fan-made anime and manga illustrations—as training data. Danbooru's images are tagged with metadata such as artist names and visual descriptors, enabling the AI to accurately recognize character features and generate targeted outputs. However, over 90% of Danbooru's content is uploaded without proper authorization, infringing creators' rights of communication to the public under copyright law. Since the training data itself lacks legal legitimacy, the act of utilizing such data for AI model training may constitute infringement against original artists [3].

2.2. Copyright ownership of AI-generated works

Most AI models prevalent on the internet are open-source, with developers typically disclaiming ownership of user-generated content in their licensing agreements. Consequently, copyrights to AI-generated works do not inherently belong to the model developers.

Copyright law emphasizes human authorship, stipulating that intellectual creations must originate from human agency. In February 2023, the comic *Zarya of the Dawn*—partially illustrated using Midjourney AI—sparked debate when its author sought U.S. Copyright registration without disclosing the AI's role. The U.S. Copyright Office issued a revised certificate, granting copyright protection only to the manually crafted textual and layout elements while explicitly excluding the AI-generated images.

The same year, the Beijing Internet Court adjudicated a copyright dispute involving AI-generated imagery. Plaintiff Li discovered that defendant Liu had removed attribution watermarks and unlawfully used an image she created via AI software. The court ruled that while AI itself cannot qualify as an "author" under copyright law, the user's intellectual input—such as designing prompts, iteratively adjusting parameters, and post-processing outputs, such as editing and text integration—constitutes creative expression warranting copyright protection. This reasoning positions AI as a tool akin to traditional brushes or paints, albeit more efficient and accessible.

2.3. Impact on traditional artistic creation

The evolution of artistic tools—from traditional pencils and paints to modern digital tablets—has historically transformed creative practices. However, the emergence of AI-generated technology has radically lowered technical barriers, enabling anyone to produce artworks within seconds by inputting keywords or images. This shift has sparked widespread dissatisfaction among illustrators and art students, who argue that AI's ability to mass-generate works in moments devalues the years of effort and skill development required for human artistry.

Moreover, the commercial adoption of AI models poses existential challenges to professionals. Tasks previously demanding collaborative efforts, such as producing detailed CG illustrations through prolonged teamwork, can now be streamlined by generating AI outputs for post-editing, yielding results comparable to human craftsmanship at reduced time and cost. Consequently, mass layoffs have swept through illustration, animation, and related industries. Remaining professionals face increased workloads, forced to prioritize bulk edits of AI-generated images over refining individual artworks.

From a benefit-balancing perspective, unregulated AI adoption risks systemic inequity. While AI democratizes access to high-quality visuals for small businesses and individuals—a clear public interest—it jeopardizes individual rights when creators face unemployment, artistic devaluation, or unauthorized use of their works as training data. Crucially, public and individual interests are not mutually exclusive: robust protections for creators' rights in the AI era can incentivize original works, thereby supplying ethically sourced training data to advance AI's lawful evolution [4].

3. Recommendations for protecting creators' rights

3.1. Strengthening protections for original works

China's Cyberspace Administration, Ministry of Industry and Information Technology, Ministry of Public Security, and National Radio and Television Administration have jointly issued the Regulations on *Labeling AI-Generated Content*, effective September 1, 2025. Major platforms for images and videos have begun flagging AI-generated or suspected AI-generated content uploaded by users, demonstrating increased awareness of copyright protection. Furthermore, platforms should proactively safeguard original works by refraining from using unauthorized content for AI training without explicit permission from creators.

Technologically, tools like Nightshade and Glaze offer protective measures for artists. Nightshade subtly alters uploaded images—imperceptible to humans—to mislead AI models into misinterpreting visual content, thereby widening the gap between AI outputs and user expectations. Glaze focuses on disrupting AI recognition to shield artworks. Platforms should integrate similar features during uploads, automatically applying protections when creators opt out of AI training usage, thereby preventing unauthorized exploitation.

3.2. Enhancing transparency in AI training data sources

On May 21, 2024, the European Council ratified the EU *Artificial Intelligence Act*, marking the enactment of the world's first comprehensive AI legislation. The Act mandates that foundational generative AI models—used to produce art, music, and other creative content—must disclose whether their training data includes copyrighted material through standardized templates and publicly release detailed information about the use of copyright-protected training data. This transparency mechanism aims to prevent and mitigate potential copyright infringements during AI model training. By requiring public disclosure, stakeholders can verify whether unauthorized content was used in training

processes. Should violations occur, such as the inclusion of unlicensed works, accountability can be swiftly enforced, ensuring legal compliance and protecting creators' rights.

3.3. Refining commercial use regulations for AI

The low cost, diverse stylistic outputs, and high efficiency of AI-generated images have led to their widespread adoption in commercial sectors. However, this trend poses significant challenges to commercial designers, illustrators, 3D modelers, animators, and entire industries. Establishing robust regulations for the commercial use of AI models is essential to protect practitioners and ensure the stable development of these fields.

Users who train AI models with others' works and intend to commercialize the results must obtain authorization from the original creators and provide corresponding compensation. Additionally, those utilizing AI software to generate outputs via keyword prompts should only access downloadable files after payment, with proceeds distributed proportionally to data-contributing artists based on style usage and output volume. This framework ensures creators receive fair financial benefits while safeguarding employment stability in the creative industries [5-6].

4. Conclusion

This paper primarily explores the copyright infringement issues triggered by the continuous development and widespread application of AI-generated technology in artistic creation, as well as strategies to reasonably protect the rights and interests of creators. Under the benefit-balancing principle, the unauthorized use of AI-generated images constitutes an infringement of the original creators' copyright. This study does not delve into specific rights of copyright holders potentially violated by AI-generated artworks, nor does it comprehensively analyze scenarios that may qualify as fair use exempt from legal liability.

AI-generated works differ significantly from traditional creative outputs, as their production processes and outcomes often resist straightforward application under existing copyright law frameworks. AI-generated technology continues to evolve, necessitating corresponding advancements in legal frameworks to regulate its use. Regarding legal issues related to AI generation, future research should focus on rationally regulating the commercial use of AI-generated technology, including clarifying authorization mechanisms for AI-generated works in commercial applications and ensuring the legality of training data sources to avoid copyright infringement against original creators, as well as defining the specific liabilities for copyright infringement during AI training processes and balancing the relationship between technological innovation and protections for creators' rights, among other aspects. Resolving these issues is critical to fostering the healthy development of AI technology and safeguarding the legitimate rights and interests of creators.

References

- [1] Tao Ran. *The Attribution of Liability for Copyright Infringement in AI-Generated Works*[J]. *Journal of Taiyuan Normal University (Social Science Edition)*, 2025, 24(01):7-16.
- [2] Chen Zengbao. *Regulation of Generative Artificial Intelligence by Copyright Law—Reflection on the Copyrightability and Infringement Risk Management*[J]. *Digital Law*, 2023, (06):24-28.
- [3] Fan Xinghui. *Risks and Solutions of Copyright Infringement in Artificial Intelligence-generated Creations*[J]. *Henan Science and Technology*, 2024, 51(24):105-108.
- [4] Wang Jingyu. *Legal Mechanism of Multiple Interests Equity*[J]. *Citizen and Law (Law Edition)*, 2023, 15(4):45-58.
- [5] Zhang Wei. *AI Sparks Copyright Disputes: Legal Policies Urgently Needed for Guidance* [N]. *Legal Daily*, 2025-01-17(007).

- [6] Jia Man. *Research on Copyright Infringement Issues in AI-Generated Artworks [J]. Communication and Copyright*, 2023, (11): 121–124.