

Original Paper

Exploring Copyright Attribution and Infringement
Compensation for Cultural Works Generated by Artificial
Intelligence (AI)

Yu Zheng¹

¹ College of Ocean Law and Humanities, Dalian Ocean University, Liaoning, Dalian, 116000, China

Received: February 8, 2026 Accepted: February 28, 2026 Online Published: March 5, 2026
doi:10.22158/elp.v9n1p194 URL: <http://dx.doi.org/10.22158/elp.v9n1p194>

Abstract

With the widespread application of artificial intelligence across various industries, the issue of copyright attribution for AI-generated works has become increasingly prominent. While AI itself lacks legal personhood, the works it creates can generate corresponding benefits, making the allocation of copyright attribution an urgent challenge to resolve. The justification for protecting AI-generated works lies in the fact that such creations are based on human-programmed instructions and algorithms. Both the developers and users of AI systems deserve respect and protection. AI-generated works are products of human subjective consciousness and function as tools to assist humanity. Although AI lacks autonomous creative capacity, the works it produces hold value—including emotional, economic, and literary value.

AI-generated works share similarities and differences with human-created works in terms of copyright. AI creations can reflect the personalities of developers and users and are protected under copyright law. However, AI cannot attain legal protection equivalent to that of humans, as its creative process remains confined to collecting information and synthesizing new works based on human demands. Nevertheless, AI creation provides humanity with additional avenues and methods to express inner thoughts and feelings, thereby enriching cultural prosperity.

Establishing copyright ownership for AI-generated works requires corresponding protective measures. Both the user and creator (developer) should jointly bear or determine the copyright ownership of AI works. Simultaneously, the types of protected AI creations—including literary, artistic, and scientific works—must be clarified, with case-by-case analysis based on the characteristics of the creative process and outcomes. To strengthen copyright protection for AI-generated works, it is recommended to clarify their legal status, establish a copyright registration system, enhance international

cooperation and exchange, and strengthen legal education and publicity. These measures can effectively address the copyright protection challenges posed by AI technology, providing robust legal safeguards for the healthy development of AI technology and societal progress.

Keywords

Artificial Intelligence (AI), Copyright Ownership, Copyright Protection

1. Introduction

Technology transforms lives, and since its inception, artificial intelligence has brought numerous conveniences to human existence. As AI finds applications across industries, it has given rise to a new form of intellectual output: AI-generated publications. The emergence of novel phenomena often brings fresh challenges, and the attribution of copyright for AI-created works has become an urgent issue requiring resolution. From the perspective of rights holders, artificial intelligence lacks the legal capacity to be a rights holder. However, works created by AI can generate corresponding benefits, giving rise to the issue of copyright attribution. Therefore, clarifying the copyright ownership of AI-generated works and providing appropriate protection for them are essential measures for advancing cultural industry creation.

2. The Legitimacy of Protecting AI-Created Works

AI creation operates based on predefined human programming, generating responses through algorithmic calculations in response to human input. The initial development of AI programming, information parameters, and algorithmic design is carried out by specialized human teams. Consequently, the inventors can be regarded as the indirect creators of AI-generated works. The purpose of protecting intellectual property rights under China's Civil Code is to safeguard the creative labor of authors. Protecting AI-generated works reflects respect for the creative intellectual contributions of developers. For the direct creators of AI-generated works—that is, the users of AI—protecting their creations holds equal significance. Therefore, while AI itself—as a tool—is not a subject protected under China's Civil Code, its users (natural persons, legal entities, or other organizations) are. Our focus is on safeguarding the rights and interests of both users and inventors.

2.1 AI-Generated Works Are Products of Human Subjective Consciousness

Cultural works created by AI primarily manifest as images, videos, and text. With the increasing maturity of AI industry technology, numerous new AI-generated tools have been developed. AI-created works are the products generated by AI as it simulates human creative thought processes. Without regulation and safeguards, the proliferation of artificial intelligence products will disrupt the cultural market and inevitably hinder society's positive development.

At its core, artificial intelligence is a tool invented by humans to serve humanity. The works it generates are outcomes produced by algorithms based on human-defined requirements and parameters. From primitive societies utilizing tools like stones, branches, and animal hides; to the development of

movable type printing and papermaking, all tools have served to compensate for human limitations. Today, the emergence of artificial intelligence once again addresses human shortcomings. Its formidable storage capacity overcomes humanity's inability to retain vast amounts of information, while its ability to organize and categorize data according to algorithmic parameters far surpasses human capabilities. Thus, we can foresee that artificial intelligence will become another vital resource for human intellectual civilization.

Artificial intelligence lacks subjective initiative; it cannot independently generate concepts or identify problems. Its creative foundation rests entirely on training data—data collected, organized, and curated by humans. For instance, the vast collection of paintings used to train image-generating AI, or the literary works employed to train text-generating AI, are crystallizations of human wisdom. The selection of data for AI training inherently incorporates human values, aesthetic standards, and knowledge systems. Ultimately, humans retain control over AI output. Individuals with full legal capacity and independent reasoning ability possess the autonomy to determine the acceptance or rejection of AI products.

2.2 The Nature of AI as a Human-Assisting Tool

Given the finite memory capacity of the human brain, external tools are essential for information storage. The advent of computers significantly reduced the cost of memory, prompting further research into more efficient information processing. By leveraging cloud-based storage to categorize data and organizing code information, artificial intelligence can be operated and utilized by humans. Heidegger's philosophy of technology posits that the vitality of technology lies in its natural integration with fulfilling human needs. There is no material separation between technology and humanity, nor is there a spiritual opposition. Take ChatGPT, developed by the American AI research company OpenAI, as an example. The emergence of this AI software has fundamentally transformed people's long-held perceptions of artificial intelligence. Prior to this, the AI systems people encountered were largely disconnected from human intelligence—inflexible and capable only of mechanically responding to human requests based on pre-programmed data inputs. ChatGPT, however, can generate responses that align with human emotional states by interpreting tone and linguistic content, thereby fulfilling emotional needs.

The birth of AI products stems from human invention and creation; the value of AI is conferred by humans. In and of itself, AI possesses no independent consciousness. According to China's relevant legal provisions, the subject of copyright is the natural person, legal person, or other organization that creates the work. AI falls into none of these categories. However, the cultural works produced by AI provide value to people, including but not limited to emotional value, economic value, and literary value. These contributions cannot be overlooked. Failing to protect the entities generating such value and allowing their exploitation would yield consequences comparable to unprotected intellectual property—hindering the cultural industry's development and posing significant obstacles to future progress in human spiritual civilization. Recognizing AI-generated works as protected creations will

position China at the forefront of AI technological advancement, laying crucial theoretical foundations for establishing our nation as a global hub for AI research, development, and innovation.

3. Similarities and Differences in Copyright between AI-Generated Works and Human-Created Works

According to the provisions of China's Civil Code regarding subjects of rights, only natural persons, legal persons, and unincorporated organizations may become subjects of civil law. Artificial intelligence lacks the characteristics of natural persons, legal persons, or unincorporated organizations and therefore cannot become a subject of civil law. AI-generated works can actually reflect the personalities of AI developers and users of AI devices. The works created by artificial intelligence bring tangible value to people, including aesthetic value, economic value, and emotional value. Protecting AI-generated works serves to better regulate the cultural market order and promote the flourishing development of spiritual civilization.

3.1 Works Created By Artificial Intelligence Are Protected By Copyright Law to the Same Extent As Works Created By Humans

Artificial intelligence, as a new cultural medium, fundamentally serves to fulfill human value needs. Through the social optimization of communication channels and the continuous evolution of technological systems, humanity has extended the capabilities of information data centralization and categorization. By deeply researching the perception of human emotions and converting them into data, AI simulates human emotional output. This blurs the boundary between humans and machines, creating the illusion that AI can respond to human emotions. In reality, however, AI remains merely a collection of data and information. Its generated works are produced through human operation, meaning that fundamentally, our legal protections still safeguard human rights.

The tool-like nature of artificial intelligence prevents it from receiving legal protection equivalent to that afforded to humans. Current AI-generated creations remain confined to compiling new composite works based on human-input requirements after gathering information—essentially “assembling” new creations. The fundamental distinction between AI and humans lies in autonomous creation: humans can learn, discover, and create new things based on their own subjective consciousness, whereas AI's creativity relies solely on pre-programmed instructions set by humans. Humans imbue AI with their subjective consciousness, employing this tool for creation. In other words, AI's ability to produce works stems from functions bestowed by humans. Before leveraging AI for creation, human creative consciousness simply expressed thoughts and feelings directly through forms like text, images, and audio. With AI, humanity now possesses a more diverse array of tools. After processing algorithmic instructions, AI provides humans with additional avenues and methods to articulate their inner thoughts and emotions. Viewed this way, what AI ultimately expresses remains human consciousness.

Today's artificial intelligence differs significantly from the simple computer programming AI of the past. Its output in response to human commands now exhibits greater randomness and unpredictability. The only thing people can do is provide AI with an abstract goal, while AI can freely formulate specific objectives based on the integration of big data, thereby opening up more possibilities for humanity. With this expanded range of choices, cultural prosperity has flourished more than ever before. For positive development, we must regulate and protect it through legal frameworks. Any phenomenon left to develop unchecked inevitably leads to chaos through loss of control and imbalance. If works created using artificial intelligence are not subject to copyright regulation, anyone could exploit materials under the pretext that AI-generated works require no copyright protection. This would inevitably lead to chaos within the cultural industry. To prevent such an outcome, works created by artificial intelligence should be treated as copyrightable works deserving of protection, with the copyright holder being a natural person, legal entity, or unincorporated organization.

3.2 The Copyright of Works Created By Artificial Intelligence Belongs To the User

During the 1981 amendment to the Copyright, Designs and Patents Act in the United Kingdom, the revised provisions concerning authorship of computer-generated works stated that "the author of a computer-generated work shall be the person who, by means of a software program, processes data and is legally responsible for that action." With the advancement of the digital economy and the increasing maturity of artificial intelligence, the distinction between users and creators of AI-generated works is becoming increasingly blurred. As China currently lacks corresponding legal frameworks for copyright protection of AI creations, the rapid growth of short-video platforms has led to a situation where anyone with a smartphone can now engage in AI-based creation.

Natural humans, constrained by physiological limitations, cannot match artificial intelligence in transmitting vast amounts of information to cloud or peripheral storage devices, categorizing and organizing it, then sharing diverse stored data across networks. Knowledge that would take a human lifetime to master can be fully stored by AI. Development progresses from quantitative to qualitative change; without substantial knowledge reserves, humans cannot create works that are both reasonable and justified. Generative AI creations can liberate humans from low-value repetitive labor, grant ordinary users greater creative freedom, and help humanity explore more challenging and valuable domains. This aligns with society's expectations for the iterative advancement of generative AI. From this perspective, natural persons utilize AI as a tool, leveraging its efficiency and speed to accomplish complex creative processes. Therefore, it is indisputable that the copyright of AI-generated works belongs to its users. Currently, most scholars also support the view that the user should be the copyright holder.

In the nineteenth century, copyright law adhered to an "author-centric" approach. However, with the continuous evolution of productive forces, human thought gradually diversified alongside this development, culminating in a philosophical revolution. This shift gave rise to the perspective that readers confer value upon literary works, meaning that works are no longer confined to being products

defined solely by human rationality. In other words, the value of a work is no longer determined solely by its creator but by the value perceived by its audience. Therefore, when works created by artificial intelligence are assigned value by humans, they can be recognized as copyrightable works and should be protected under corresponding laws. The ultimate ownership of copyright should reside with both the individual who proposes the creative work and the creator of the artificial intelligence tool itself—that is, the user and creator of the AI.

4. Protective Measures for Determining Copyright Ownership of AI-Generated Works

Protective measures for artificial intelligence primarily require an urgent legal framework to provide support. Until the legal system is perfected, various online platforms must voluntarily uphold the copyright of AI-generated works. Currently, AI-generated works are not protected by copyright law and are treated as freely usable public resources. However, most AI creations are derived from stored information, effectively converting privately copyrighted works into freely accessible public assets. Without restrictions and protections for AI-generated works, copyright safeguards risk becoming meaningless. When intellectual achievements lack adequate protection and compensation, creators' motivation to produce diminishes significantly.

However, this does not imply that all AI-generated works should be protected under copyright law. AI creations that constitute blatant plagiarism, severely infringe upon others' copyrights, or harm others' interests should not be afforded protection. Establishing criteria for determining which AI-generated works warrant protection also necessitates the formulation of corresponding regulations to govern this matter.

4.1 Attribution of Copyright in Artificial Intelligence between Users and Developers

With the rapid advancement of artificial intelligence technology, AI-generated works are increasingly applied across various fields, sparking profound discussions about copyright ownership. Most legal systems currently focus on the creator as the basis for copyright attribution. Since AI itself lacks legal "personhood," its creative acts cannot be regarded as those of a legitimate "creator." Consequently, copyright for AI-generated works typically belongs to its "user" or "manufacturer."

The user refers to the individual or organization directly controlling or employing the AI for creation. Although AI plays a significant role in the creative process, it remains a tool. Just as human artists use brushes and musicians use instruments, AI serves merely as an auxiliary tool in the creative process. Therefore, the right of creation should belong to the user controlling this tool. Individuals or companies using AI to generate art, music, literature, and other works should be recognized as the legitimate copyright holders of such creations, as they oversee the entire creative process and bear responsibility for the final output. While users of generative AI might not require copyright protection in exceptional circumstances, it remains undeniable that safeguarding algorithmically created works by users would better incentivize their enthusiasm for leveraging algorithms in creative endeavors.

The issue of copyright attribution for creators (developers) is more complex. By setting algorithms, selecting data, and designing models, AI developers construct intelligent systems capable of creative output. To a certain extent, the creative activities of AI are based on the developer's design and instructions. Therefore, in some cases, developers may hold certain copyrights to AI-generated works. This applies particularly when the developer of the AI system has invested significant intellectual labor and creative contributions during the creation process. For example, the developer's technological innovations directly influence the AI's creative capabilities and style, thereby affecting the nature of the resulting work.

In summary, copyright ownership for AI-generated works should be jointly borne or determined by both the "user" and the "creator." Users, by operating and controlling the AI's creative output, assume ultimate responsibility for the work's creation and should therefore be regarded as the legitimate copyright holders in most cases. Creators, however, make significant contributions at the technical and tooling levels. If the AI's creation involves the developer's unique algorithms or designs, creators may also hold partial copyright in certain circumstances. As the legal framework continues to evolve and mature, more detailed regulations may emerge in the future to better address the challenges of creation and copyright in the AI era.

4.2 Confirmation of the Types of AI-Created Works Eligible for Protection

Against the backdrop of rapid digitalization and intelligent development, artificial intelligence (AI) technology is transforming every aspect of social life at an unprecedented pace. Among these advancements, AI-generated works—as products of technological progress—have drawn widespread attention within the legal community. Whether AI-generated works should be protected under copyright law, and specifically which types of such works should fall within the scope of protection, are pressing issues requiring in-depth examination within the intellectual property legal community. Including AI-generated content within the scope of statutory licensing not only balances the interests of copyright holders of AI-generated works with those of the public but also reduces transaction costs, thereby promoting efficient market operations. Therefore, by examining the characteristics of AI-generated works, the challenges in protecting them under the existing legal framework, and considerations based on legal principles and practices, we can identify the types of AI-generated works that are eligible for protection.

Based on legal principles and practice, the types of AI-generated works eligible for protection primarily fall into the following categories. First are literary works. For AI-generated literary works such as poetry and fiction, if their form of expression and content demonstrate a degree of innovation and artistic merit, and can evoke emotional resonance and aesthetic experience in readers, they should be regarded as literary works and protected under copyright law. When determining the protected categories of AI literary works, emphasis should be placed on the originality of their linguistic expression, the coherence of their plot conception, and their overall artistic effect. Secondly, artistic works—such as paintings and music—created by AI should be regarded as protected artistic works

under copyright law if they exhibit a distinctive artistic style and aesthetic value in their visual or auditory presentation, capable of eliciting resonance and appreciation from audiences. When determining the protected category of AI-generated artistic works, emphasis should be placed on aspects such as the uniqueness of their artistic style, the innovativeness of their creative process, and their overall aesthetic effect. Thirdly, scientific works: AI-generated academic papers, research reports, and other scientific works should be regarded as scientific works and protected under copyright law if their research content and methodology demonstrate innovation and practical utility, thereby advancing scientific and technological progress. When determining the protected categories of AI scientific works, emphasis should be placed on the innovation of research content, the rationality of research methodology, and overall scientific value. Finally, regarding the protection status of other types of works, for emerging AI-generated creations such as AI-designed architectural works or AI-created software works, case-by-case analysis should be conducted based on the characteristics of their creation process and outcomes, with protection granted according to relevant provisions of copyright law. When determining the protected status of these novel AI creations, emphasis should be placed on the innovation of their creation process, the uniqueness of their expressive form, and their overall creative value.

4.3 Recommendations for Improving Copyright Protection for AI-Generated Works

First, clarify the legal status of AI-generated works. To address issues such as disputes over copyright ownership and ambiguous originality standards in protecting AI-created works, it is recommended to revise the Copyright Law or enact specialized regulations to explicitly define the legal standing of AI-generated works. Specifically, provisions could stipulate that AI-generated works may be recognized as copyrightable works under certain conditions and thus protected by copyright law, while simultaneously clarifying the rights and obligations of stakeholders including AI developers and users.

Second, establish a copyright registration system for AI-generated works. To strengthen copyright protection for AI-created content, it is recommended to implement a registration system for such works. Copyright registration provides clear legal proof for AI creations, reducing the risk of rights disputes. Simultaneously, this system promotes the dissemination and utilization of AI-generated works, thereby fostering the flourishing development of the cultural industry.

Third, strengthen international cooperation and exchange. Given the global and transnational nature of AI technology, copyright protection for AI-generated works also requires international collaboration and communication. It is recommended to enhance exchanges and cooperation with other countries regarding the copyright protection of AI-generated works, jointly advancing the refinement and development of a global copyright protection system for such creations.

Finally, strengthen legal education and publicity. To enhance public awareness and understanding of copyright protection for AI-generated works, it is recommended to intensify legal education and outreach efforts. By organizing lectures, seminars, and similar events, relevant knowledge about copyright protection for AI-generated works can be disseminated to the public, thereby raising

awareness of copyright safeguards. Concurrently, media channels and other platforms can be leveraged to amplify publicity on copyright protection for AI-generated works, fostering a supportive social environment.

Copyright protection for AI-generated works presents a complex and significant challenge. By clarifying the legal status of AI-created content, establishing a copyright registration system, strengthening international cooperation and exchange, and enhancing legal education and awareness, we can effectively address the copyright protection challenges posed by AI technology. In the future, as AI technology continues to advance and legal frameworks evolve, copyright protection for AI-generated works will become more robust and standardized. Simultaneously, we must remain vigilant regarding the developmental trends and legal implications of AI-created content, providing strong legal safeguards to support the healthy development of AI technology and societal progress.

5. Conclusion

The copyright issue of AI-generated cultural works is a key topic in intellectual property law in adapting to technological development. This study concludes that AI does not possess the status of a legal subject of rights; it is essentially an auxiliary tool for human creation. The core of copyright protection for AI-generated works is to safeguard the intellectual labor rights and interests of developers and users. Literary, artistic and scientific works generated by AI that meet the requirements of originality and value should be protected by copyright law, while those involving plagiarism or infringement should be excluded. As to copyright ownership, users shall be the main right holders, and developers may enjoy part of the rights based on their technological contribution, which shall be determined case by case.

At present, the copyright protection of AI-generated works in China is challenged by an imperfect legal system and ambiguous right definition. It is urgent to clarify their legal status through legislation, establish a special copyright registration system, strengthen international cooperation and public legal education, and build a targeted protection system. AI creation does not subvert the traditional copyright system, but improves and expands it. In the future, we should promote the dynamic improvement of the legal system, balance technological innovation and copyright protection, take into account the interests of multiple parties, fully stimulate the potential of AI in cultural creation, and provide a solid legal guarantee for the healthy development of AI technology and the digital upgrading of the cultural industry.

References

- Cong, L. X., & Li, Y. L. (2023). Recognition of Generative AI Works and Copyright Attribution: Taking ChatGPT's Application Scenarios as an Example. *Journal of Shandong University (Philosophy and Social Sciences Edition)*, 2023(04), 171-181.
- Huang, C. (2023). On the Originality of AI-Generated Works and Their Copyright Attribution: Reflections on Current and Future Forms of Artificial Intelligence. *New Media and Society*, 2023(01), 169-190.d
- Huang, H., & Huang, J. (2019). The Rationale for Treating AI-Generated Output as Protected Works. *Jiangxi Social Sciences*, 39(02), 33-42, 254.
- Li, X. B. (2024). Exploring Copyright Protection Pathways for AI-Generated Works. *China Publishing*, 2024(05), 49-55.
- Li, Z., & Zhang, Z. L. (2022). Algorithmic Empowerment and Value Metaphors: Alienation Risks and Rule Harmonization in Algorithmic Expansion during the Smart Media Era. *Editor's Friend*, 2022(03), 48-54.
- Miao, C. L. (2021). Study on Copyright Attribution of AI-Generated Works. *Research in Philosophy of Science and Technology*, 38(02), 123-128.
- Wang, C. Z. (2024). On the Basis for Designating Humans as Copyright Holders of Generative AI Works. *Journal of Shanghai University of International Business and Economics*, 31(06), 79-91.