

# Research on Copyright Protection of Artificial Intelligence Generated Content

Zicheng Wang

Law School of Tianjin University of Commerce Tianjin 300134, China

---

**Abstract:** In order to obtain the protection of the copyright law, the content of artificial intelligence generated objects must be proved to be works under the copyright law, that is, to prove that the artificial intelligence generated objects have originality and intellectual achievements. Therefore, this paper attempts to demonstrate that artificial intelligence generated objects are still the same as traditional works, possessing the attributes of originality and intellectual achievement, and that the judgment of originality can only be expressed in terms of expression itself, not involving the expression of ideas; intellectual achievements can only be based on the generated ideas, expressing the results to make judgments and getting rid of the process of making judgments only with thoughts. Therefore, artificial intelligence generated objects can still be regarded as works to a certain extent.

**Keywords:** Artificial intelligence; Originality; Intellectual achievement

---

## Introduction:

The rapid development of artificial intelligence has broken through the traditional manufacturing field, and has already involved the fields of literature and art. For example, in the field of literary creation, in 2017, “Xiaobing” of Microsoft created the poem *Sunshine Lost the Glass Window* and officially published it.<sup>[1]</sup> In the field of art, in 2018, Christie’s in New York sold the first artificial intelligence painting, and its transaction price was as high as 432,000 US dollars.<sup>[2]</sup> The field of social science usually studies the related issues of “artificial intelligence” in the sense of “application system with specific externalization function”, and divides it into weak artificial intelligence and strong artificial intelligence according to the intelligence of artificial systems.<sup>[3]</sup> Weak artificial intelligence generally refers to intelligent tools that are directly manipulated by humans. The legal community has basically reached a consensus on the tool attributes and legal object positioning of weak AI, but there is still considerable controversy over strong AI and its legal status.<sup>[4]</sup>

This article can be discussed from the opposite side. The “thought” and “personality” of the work are only the author’s own thoughts, and there is no way to explain it. The reader only analyzes and researches the author’s writing scene at that time, and then tries to figure out the author’s thoughts, but in any case, it is impossible to restore and explain it as it is. For example, we can’t fully understand the true meaning of the author Cao Xueqin of *A Dream of Red Mansions*. Can we say that *A Dream of Red Mansions* is not a work? Therefore, we cannot use this to deny the properties of artificial intelligence generated works, and we cannot simply take “people” as the main subject and take them as the primary consideration. Only by analyzing it from an objective point of view, whether it has originality and certain intellectual achievement attributes can determine the attributes of its works.

## 1. Proof of originality of AI generated content

Regarding whether it is original, the supporting scholars believe that the content generated by artificial intelligence is different from the expression, and its originality is only an objective judgment of the expression of the work itself, so the generated content is still original. Opposing scholars believe that <sup>[5][6]</sup> originality requires original thinking and methods in the creation process, but artificial intelligence generated objects do not have original thinking and methods, so they are not considered to be original.<sup>[7]</sup> Therefore, we can think about whether the judgment of originality is based on the specific expression, or the idea in the process of forming the specific work. The other is whether originality is judged before the work is formed or after the work is formed. Some scholars have pointed out that the judgment of originality is the expression itself of the object that has been formed, and only the form of the expression

needs to be reviewed. Originality means that when the author creates a work, the author is required to complete it independently and be creative, and creativity is a requirement for the result of the creation, so both of them have nothing to do with thinking or thought. In addition, originality refers to the object of description, definition, and only expression. Thoughts are not included.

Therefore, before the specific expression is formed, no matter how profound the thought is, it is basically irrelevant to copyright. After the specific expression is formed, if the new expression is different from the already formed expression, it meets the requirements of originality, and thus constitutes a work. Therefore, we have to admit that the thoughts that exist in the author's mind are unknown to us during the creation process. Although we discuss its development, it is ultimately unknown. Therefore, we cannot use this to take an unknown object to determine whether it constitutes a work.

## **2. Explanation of the attributes of the intellectual achievement of artificial intelligence generated content**

We know that the judgment of intellectual achievement is and can only be judged according to the expression results that have been generated, and it is presumed to have intellectual achievement under the condition of a certain number and non-repeatable content. Works created by artificial intelligence and human beings can be understood by human beings. The reason why human creations are called works is that human creations generate non-repetitive content, which can be understood by human beings and constitute original expressions. Therefore, the definition of intellectual achievement not only considers the selectivity of its generated content, but also considers whether it can be understood by human beings. If the content outside the scope of human understanding cannot be a work in the sense of copyright law.

Therefore, the content created by artificial intelligence, first, can be understood by humans. Second, non-repeatable content is generated, which can be clearly distinguished from existing expressions. Third, only pay attention to the results of constituting expression, not the process of constituting expression. The non-repetitive content generated under the condition of selection space is an intellectual achievement. As for the ideas in the process of production, only the results of expression that have been generated can be used. Presumption of existence is not a constituent element of an independent, normative work. Therefore, at present, artificial intelligence can generate a certain amount of non-repetitive content, which meets the requirements of intellectual achievements.

## **3. Attribution of the rights of artificial intelligence generated objects**

Since it is recognized that artificial intelligence generated objects belong to works in the sense of copyright law, then the works should belong to the designer, the user, or the designer and the user belong together. There are different opinions in theory. The author believes that although the intellectual labor of the two works together and eventually generates works, it does not meet the institutional principles and legal provisions of the co-authors. Specifically, artificial intelligence designers and users lack the basic elements for determining co-authors, that is, they not only do not have the intention to jointly use artificial intelligence generated objects in the future, but also lack the cooperative intention of co-creating works. For artificial intelligence designers, they have the creative intention of creating artificial intelligence, but they do not have the pursuit and direct willingness to apply artificial intelligence to generate works; for artificial intelligence users, they only pay attention to the result of artificial intelligence generated works, having no intention of actually participating in the design of artificial intelligence software.

This can be understood first from the author's connotation point of view. From the perspective of the generation process of artificial intelligence works, compared with software designers, the relationship between users and specific works in time and space is closer, and it is the main body that directly triggers the creation of works. On the one hand, the user as the author is conducive to the establishment of a benign benefit distribution model for AI generated products. Only when the rights and interests of users are fully protected, more people will be willing to use artificial intelligence software, and software development companies will obtain more profit income; the income of improvement of software development companies will increase the capital investment in designers to promote the development of more intelligent software; in the end, the upgrade of software functions will attract more users to use and pay attention, making the development of artificial intelligence continue a virtuous circle. On the other hand, the user attribution model can also eliminate the difficulty of distinguishing machine-assisted and machine-generated works. If the artificial intelligence generated objects are owned by subjects other than the user, it is necessary to distinguish whether the machine is an auxiliary generated work or an autonomously generated work, which will obviously cause difficulties and inefficiencies in the identification in practice. Moreover, from the perspective of technological development, the development of the relationship between humans and machines has always been a continuous process, and it is impossible to discern when the machine first got rid of the status of auxiliary tools and obtained full autonomous creative ability. Therefore, considering the possibility of practice identification and future policy making, the user attribution model is more preferable.

## **In conclusion**

With the development of artificial intelligence, artificial intelligence has become more and more like human beings. If the traditional copyright protection method is still used, it will not be regarded as a “work” and cannot be protected by law. Therefore, acknowledging the originality and intellectual achievement of the content generated by artificial intelligence does not mean directly empowering the artificial intelligence itself. Therefore, tracing back to the source, artificial intelligence is still a creation of human beings. This article is only giving the rights to the content generated by artificial intelligence—the user of artificial intelligence.

## **References:**

- [1] Liu Yandong. Taking “Microsoft Xiaobing” as an example to analyze the application of artificial intelligence [J] Science and Technology Communication, 2019 (12): 113-115.
- [2] Sun Yurong, Liu Baoqi. Research on the copyright of artificial intelligence-generated content [J] Journal of Beijing Union University (Humanities and Social Sciences Edition), 2020 (01): 86-91.
- [3] Liu Xianquan. Response to the “pseudo-criticism” of artificial intelligence legal research [J]. Law, 2020 (01): 3-14
- [4] Zou Xiaomei, Chen Yanxia. —— takes the tool attributes of artificial intelligence as the perspective [J]. Communication and Copyright, 2021 (11): 6.
- [5] Yi Jiming: Is the creation of artificial intelligence a work? in Legal Science (Journal of Northwest University of Political Science and Law), 2017, No. 5, pp. 137-147;
- [6] Xiong Qi: Copyright Determination of Content Generated by Artificial Intelligence, in Intellectual Property, No. 3, 2017, No. 3-8 pages.
- [7] Luo Xiang and Zhang Guoan: Protection of Artificial Intelligence Creations from the Perspective of Copyright Law, in Journal of Henan University of Economics and Law, No. 6, 2017, p. 145.

## **About the Author:**

Zicheng Wang ,Graduate student of economic law, School of law, Tianjin University of Commerce, Beichen District, Tianjin, China.