

Research on the Copyright Ownership and Protection of The Content Generated by Artificial Intelligence

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Abstract: With the strong entry of generative artificial intelligence represented by ChatGPT and others, new producers have emerged in the field of content products. The originality standards of traditional copyright law and the basic theory of anthropocentrism have been strongly challenged by AI generated content. Therefore, copyright law needs to respond to a series of copyright issues arising from the generation of content by artificial intelligence. This study aims to analyze the copyright ownership and protection issues of AI generated content, and provide ideas and solutions for the copyright ownership and protection issues of AI generated content on this basis.

Keywords: Artificial intelligence; Copyright; Ownership of rights; Rights protection.

1. Introduction

Artificial intelligence, abbreviated as AI. It is a new technological science that studies and develops theories, methods, technologies, and application systems for simulating, extending, and expanding human intelligence. Nowadays, artificial intelligence technology has been applied in many fields.

The emergence of artificial intelligence has changed the traditional way of creating works dominated by humans, causing many copyright issues. The application of artificial intelligence in generating literary and artistic content not only poses a huge challenge to copyright law theory, but also brings new problems to copyright judicial practice. Firstly, the generated content of artificial intelligence is not just a simple replication and concatenation of existing knowledge and information, but also has innovative capabilities. The content generated by artificial intelligence is not fundamentally different from works created by humans in terms of external form. However, the copyright system is built around humans, and in the context of artificial intelligence creation, humans are becoming less and less involved in the process of generating content related to artificial intelligence. The factors related to humans in the generated content of artificial intelligence are gradually being diluted and removed, which brings huge legal challenges and value conflicts to the human centered copyright system.^[1] For example, in the issue of copyright ownership, artificial intelligence itself cannot become the subject of rights. There has always been controversy in the field of copyright law over whether the copyright of AI generated content that conforms to the characteristics of the work should belong to the developers or users of the AI.

At present, in the research on the ownership and protection of copyright in artificial intelligence generated content, there are mainly two opinions among scholars: affirmative and negative. Most scholars support the affirmative view, which believes that artificial intelligence generated content has copyright, but its discussion is mostly theoretical and not practical enough. This study reflects and analyzes the copyright ownership and protection issues of artificial intelligence generated content through literature search,

practical research, and other methods. Based on this, it provides certain ideas and solutions for the copyright ownership and protection issues of artificial intelligence generated content.

2. Copyright Ownership of Content Generated by Artificial Intelligence

In order to coordinate the legal relationships between different stakeholders involved in artificial intelligence generated works and promote the healthy development of artificial intelligence, it is necessary to clarify the copyright ownership of artificial intelligence generated works at the legal level.

2.1. The Importance of Copyright Ownership of Content Generated by Artificial Intelligence

Firstly, clarifying the copyright ownership of artificial intelligence generated content is beneficial for clarifying the distribution of benefits and maintaining the order of the copyright market. Artificial intelligence generated content has certain economic benefits, which need to be allocated in a timely and reasonable manner through the copyright system. Unclear distribution of benefits can lead to frequent infringement disputes of artificial intelligence works, affecting the stability of the copyright market order. Therefore, it is necessary to clarify the ownership of the copyright of artificial intelligence generated content, determine its profit distribution rules, and ensure the stable operation and healthy development of the copyright market.^[2]

Secondly, it is conducive to implementing equal protection for content generated by artificial intelligence, thereby effectively preventing the occurrence of the phenomenon of "bad currency driving out good currency". Compared with human creations, artificial intelligence generates content with high efficiency and stable quality. As the technology of artificial intelligence simulating human intelligence becomes more mature, if there is a lack of clear copyright protection for AI generated content, people will be more inclined to use AI generated content based on cost considerations and abandon the use of human works, resulting in the

phenomenon of "bad coins driving out good coins".^[3]

Finally, it is conducive to promoting the emergence and dissemination of more excellent works. As mentioned above, clarifying the copyright ownership of artificial intelligence generated works can enable the intellectual labor of the rights holders to receive corresponding rewards, thereby increasing their enthusiasm for using artificial intelligence to generate more works and promoting the emergence of more excellent works.

2.2. Analysis of the advantages and disadvantages of the existing copyright ownership system for artificial intelligence generated content

"Copyright belongs to the author" is the principle of copyright ownership arrangement. As far as the legal concept of the author is concerned, the natural person who created the work is the author.^[4] Article 9 (3) of the UK Copyright, Designs and Patents Act stipulates that the author of a computer-generated work shall be the person who makes necessary arrangements for the creation of the work. In the process of artificial intelligence generating works, designers endow artificial intelligence with learning and creative abilities through the construction of software and hardware; By inputting creative instructions, users trigger artificial intelligence to begin their creative activities of generating works. The raw materials provided by users largely determine the expression content of artificial intelligence generated works.

Both AI software designers and users have made necessary arrangements for creating AI generated content, therefore copyright law must make a choice between AI designers and users, and clearly define the ownership of the copyright of AI generated content. The viewpoint that the copyright of artificial intelligence generated products belongs to the designer has certain rationality, but there are many drawbacks, such as the designer's dual profit, the designer's ability to profit without knowing the work, and so on. Granting the copyright of artificial intelligence generated products to users is more advantageous. On the one hand, as authors, users are conducive to the establishment of a benign profit distribution model for artificial intelligence generated content; On the other hand, the user attribution model is conducive to distinguishing between machine assisted and machine generated works. Therefore, this article believes that the user attribution model is more suitable for the current situation.

2.3. Design of Copyright Ownership System for Artificial Intelligence Generated Content

For the design of the copyright ownership system for artificial intelligence generated content, this article believes that it should be carried out from the following aspects. Firstly, the basic principle is that the copyright of AI generated content should belong to the users of artificial intelligence; Secondly, it is necessary to balance the protection of the interests of developers and investors; Finally, respect the principle of autonomy of will and fully respect the agreements or agreements voluntarily reached between various rights holders.

3. Copyright Protection of Content Generated by Artificial Intelligence

3.1. Clarify the protected objects and scope

While protecting content generated by artificial intelligence, the objects and scope of protection should also be clearly defined to prevent unreasonable protection of non copyrightable generated content. Therefore, it is necessary to reasonably define the originality of content generated by artificial intelligence, in order to distinguish between objects with originality that are protected by copyright law and objects without originality that are not protected by copyright law. This article believes that the object requirements for AI generated content can be determined by a lower standard to determine its originality. For example, as long as the AI generated content does not constitute substantial similarity to existing works, it can be inferred that the generated content has originality.

3.2. Reasonable adjustment of protection period

To achieve a balance between the interests of copyright owners and the rights and interests of the public, the Copyright Law provides limited time protection for works. In terms of protection period, China's Copyright Law provides permanent protection for the personal rights of works created by natural persons, except for the right to publication, and sets the protection period for intellectual property rights as "the author's lifetime and fifty years after their death.". This article argues that compared to traditional works created by natural persons, the protection period of intellectual property rights for various works of artificial intelligence generated content can be appropriately adjusted, for example, it can be adjusted to within fifty years from the first publication of self generated content.

3.3. Limitations on Copyright Protection of Artificial Intelligence

If artificial intelligence generated works are not distinguished from non artificial intelligence works, it may actually provide the same protection scope and intensity as non artificial intelligence works, which may not be conducive to achieving the original intention of protecting the copyright of artificial intelligence generated content. Therefore, we need to impose certain restrictions on the protection of artificial intelligence copyright, such as mandatory attribution obligations, establishing a legal licensing model, etc., so that we can easily distinguish between AI generated works and non AI works, and better protect them.

4. Conclusion

The era of artificial intelligence has begun, and humanity should face this technology that will bring tremendous changes to our lives. For the issue of copyright ownership and protection of content generated by artificial intelligence that needs to be clearly defined, the Copyright Law should actively respond to it, with a serious and responsible attitude, quickly establish and improve relevant laws and regulations, and provide reasonable protection and restrictions, so that the copyright system can adapt to the era of artificial intelligence and radiate new vitality and dynamism.

Acknowledgment

National college students' innovation and entrepreneurship plan project, (No.202310378072); Project of enhancing ideological and political work ability in colleges and universities in Anhui Province, (No.sztsjh-2022-6-8); Key teaching and research project of Bengbu Medical College, (No.2022jyxm11).

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