

Research On Copyright Ownership of Products Using Artificial Intelligence

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Abstract. Artificial intelligence technology is booming in the digital economy era. In view of the legal attributes of the subject and object of artificial intelligence, there have been many controversies in the theoretical and academic circles. For example, some scholars advocate that products involving artificial intelligence ought to be covered under copyright from the standpoint of "objectivism". However, some scholars think that copyright protection should not be given to them from the perspective of "subjectivism". The copyright ownership of artificial intelligence products is currently debated in three mainstream theories: "producer theory", "creator theory" and "user theory". In fact, the "user theory" is more reasonable from three aspects: the composition characteristics of works, the social significance of legal protection and the principle of unity of rights and obligations. Therefore, at the institutional level, we should try to clarify the status of artificial intelligence products and the copyright subject of artificial intelligence products is artificial intelligence users, in order to achieve legal protection, an artificial intelligence declaration system must be established.

Keywords: Artificial intelligence; Artificial intelligence products; Copyright.

1. Introduction

The advancement of artificial intelligence technology and its industry is on the rise, ChatGPT technology became very popular upon its release, with works that can rival human creations. Legal disputes surrounding artificial intelligence products mainly focus on two aspects: whether these products have copyrights and, the ownership of those copyrights. Regarding the first controversial issue of whether copyright protection can be granted, the crux lies in determining whether artificial intelligence products can be recognized as works under copyright law. Currently, there are three main viewpoints in theoretical and practical circles: opposition, support and compromise. Firstly, the opposing view argue that artificial intelligence products do not qualify as work under copyright law. For example, Professor Wang Qian believes that the contents generated so far is a result of applying algorithm rules and templates, lacking the reflection of a unique creator's personality and thus failing to be recognized as works [1]. Secondly, the support theory asserts that artificial intelligence products indeed quality as works under copyright law. For example, Professor Wu Handong suggests that robots can independently produce content generated by artificial intelligence, it constitutes a work protected by copyright, regardless of its utility and societal evaluation being disregarded [2]. The eclectic theory takes a relatively neutral stance. For example, Liu Ying suggests that artificial intelligence products not originating from human's face challenges in meeting the criteria of works under current copyright law from an interpretation theory perspective, thereby avoiding issues of author identification. Nevertheless, as the industry matures and artificial intelligence achieves independent creation, amending relevant provisions of existing copyright law becomes necessary to provide institutional protection for such products [3].

The reason is that one of the important characteristics of a work is originality, which means that the author has invested intellectual labor into creating the work and has demonstrated a minimum level of creativity [4]. Artificial intelligence products can be considered original as long as they are independently completed without plagiarism or imitation. Secondly, artificial intelligence is simply a program written by people to generate products. Therefore, artificial intelligence products are essentially the intellectual labor achievements of individuals, meeting the requirements of copyright law for works. Thirdly, artificial intelligence products also fulfill the characteristics of reproducibility

required by copyright law. Paragraph 5 of Title 10 of the Copyright Law of the People's Republic of China defines that the right of reproduction as the right to create one or more copies of a work through methods such as printing, copying, recording, duplicating, remaking, and digitizing, among others [5]. Furthermore, some scholars in China have advocated for protection due to their recognition of the significant impact of artificial intelligence technology on society and its inevitable progression. Building upon this, this paper delves into the issue of copyright ownership of artificial intelligence products based on varying perspectives within theoretical and practical circles regarding the ownership of such copyrights. The objective is to provide theoretical underpinning and institutional assurance for ownership rights, and to contribute positively to the advancement of artificial intelligence technology.

2. Dispute over the Ownership of Artificial Intelligence Products

2.1. Producer Theory

The author advocates drawing lessons from the legal person system and granting artificial intelligence the status of a legal entity to take pleasure in owning copyright for artificial intelligence products. The academic viewpoint is that "artificial intelligence cannot be denied the qualification and possibility of becoming a copyright subject just because it is not clearly stipulated in the law that it can exist as a copyright subject [6]" and "civil subjects are not limited to natural persons by the current legal provisions on civil subjects, and it is the best example that legal persons become civil subjects as lifeless subjects in society become civil subjects [7]." There is some rationale in the author's recognition theory. This paper argues that although the author's theory opens up a new approach to address the issue of the lack of legal protection for artificial intelligence products at present, it is not desirable. Firstly, designating artificial intelligence as a legal entity with the same status as people contradicts the original intention of developing artificial intelligence. Artificial intelligence is a product that serves to advance human progress and help the advancement of human society. It cannot supersede humans and be granted the same legal status as natural persons. Secondly, the science of artificial intelligence does not view artificial intelligence as a legal matter, and the rule of law requires that artificial intelligence be devoid of certain characteristics. Artificial intelligence does not meet the requirements to be a subject of a legal relationship; as such, it is incapable of having any rights, capacities, or obligations [8]. Lastly, while the legal entity system grants non-human entities legal personality, its essence lies in the independence and legalization of human collective will and is ultimately based on human. In contrast, artificial intelligence does not exist as a human collective with shared will. Therefore, there is no institutional basis for drawing parallels between the legal entity system and granting artificial intelligence the status of a legal entity [9].

2.2. User Theory

According to the doctrine, the copyright of products utilizing artificial intelligence belongs to their consumers. The system design of making artificial intelligence users as authors can provide a feasible solution for artificial intelligence copyright [9]. According to this theory, artificial intelligence cannot own copyrights for artificial intelligence products from a perspective that artificial intelligence does not have and should not have the qualification to become a legal subject and thinks that with the refinement of professional division of labor and the expansion of market, creators are often not the users of works. In order to achieve the maximum effect of works, people gradually accept copyright subjects other than creators [10]. However, AI users argue that there are some flaws in this theory, such as how can ownership rights be resolved when an AI product is shared by many people.

2.3. Creator Theory

The theory states that the only person with copyright ownership of artificial intelligence products is the programmer. This theory seems to be highly rational. Artificial intelligence is a tool created by human beings. It is precisely because designers input algorithms for programming that huge databases

and artificial intelligence programs are established. Artificial intelligence's function is derived from the research and development of designers and inevitably carries the subjective brand and ideological color of human beings. Therefore, its products are essentially the intellectual labor achievements of the people behind artificial intelligence. However, artificial intelligence is produced by a group of hundreds, multiple, or even dozens of people. Therefore, if the creation of artificial intelligence is subject to copyright, it is attributed to artificial intelligence programmers in general, it does not completely solve this problem [11].

3. Identification of Copyright Subject of Artificial Intelligence Products

Based on the dialectical understanding of the above disputes about copyright ownership, the copyright of artificial intelligence products should be owned by the users of artificial intelligence, according to this paper.

Firstly, the creator of artificial intelligence only provides the technical basis for the generating artificial intelligence products, which involves establishing a vast database and running programs. The purpose of creating artificial intelligence products is not for producing products but for other objectives. The generation of artificial intelligence products is directly influenced by artificial intelligence users. Users input specific keywords to generate outputs based on their particular needs. In other words, the type of product created is controlled by the user's subjective thoughts and intentions, making it the external expression of the user's thought progress, aligning with the works defined in copyright law. If the user does not input specific keywords or utilize artificial intelligence, artificial intelligence products would not exist. From this perspective, artificial intelligence products are actually created by the user, known as the author.

Secondly, the social significance of copyright protection for artificial intelligence products is to encourage creativity through legal protection. In the event that artificial intelligence products are owned by copyright is identified as the creator of artificial intelligence or artificial intelligence is made as a legal subject, the scope of copyright protection is limited to minority groups, and most people do not have the right to participate. Science and technology will never inherently uphold the principle of inclusivity and fairness. Due to the advanced nature, complexity, and high costs associated with artificial intelligence, the unequal distribution of opportunities and capabilities in the realm of artificial intelligence persists under the influence of a free-market approach [9]. Conversely, when the user of artificial intelligence is recognized as the copyright holder, it allows the broader population to partake in its usage, thus significantly promoting positive advancements in artificial intelligence technology.

Finally, according to the legal principle of the unity of rights and obligations, legal subjects should bear corresponding obligations while enjoying legal rights. As the controller of works, the users of artificial intelligence are more conducive to infringement control and bear corresponding regulatory responsibilities [9].

It's worth noting that there are some shortcomings in identifying artificial intelligence users as the subject of copyright for artificial intelligence products. For example, the ability of artificial intelligence products to attain work status plays a crucial role in determining their eligibility for copyright protection, necessitating clarification of their work status at a legal level. There are various methods for artificial intelligence users to establish their identities, which may involve safeguarding the rights of artificial intelligence users through purchase or lease agreements within the framework of laws and regulations. Additionally, it is essential to address, what is the method for protecting the rights of artificial intelligence users in terms of disseminating or reproducing their works after creation. These issues require prompt resolution through theoretical analysis and legislative actions.

4. Designing a Copyright Subject Ownership System for Artificial Intelligence Products

4.1. Clarify the Status of Artificial Intelligence Products

A natural person is the subject of copyright for artificial intelligence products, and the products conform to the definition of works in copyright law and can be protected by copyright Article 3, paragraph 9, of the Copyright Law stipulates that "other intellectual achievements conforming to the characteristics of works" is a law made for other types of works that may appear with the times. It is reasonable to incorporate artificial intelligence products into the provisions and norms of the Copyright Law. Therefore, it is necessary to explicitly recognize the status of artificial intelligence products at the legal level, which also provides a legal basis for the protection of copyright subjects' rights.

4.2. The Subject of Copyright of Artificial Intelligence Products is Artificial Intelligence Users

The copyright law of the people's republic of China stipulates that the author is the owner of copyright, except as otherwise stipulated in this law. The author is the natural creator of a work. A work created under the auspices of a legal person or an unincorporated organization on behalf of the will of the legal person or unincorporated organization and for which the legal person is responsible or unincorporated organization bears the responsibility shall be deemed to be the author [5]. To ensure that users of artificial intelligence are the creators of artificial intelligence products, a new paragraph 3 should be added after this law.

4.3. Establishing an Artificial Intelligence Declaration System

At the beginning of 2024, the state recently promulgated the implementation plan of the declaration system for establishing patents for financially funded scientific research projects. Taking this system as a reference, an artificial intelligence declaration system can be established in the field of artificial intelligence. The purpose of this system is to protect readers' right to know and to verify copyright ownership. Authors of artificial intelligence products can be identified through this declaration process. Given the unique nature of artificial intelligence, the artificial intelligence annotation system requires publishers to include the statement. This work is generated by artificial intelligence following the author's name. This practice enables readers to understand that related works were created by artificial intelligence and provides the name of the artificial intelligence system responsible for their generation [12].

5. Conclusion

With the expanding influence of artificial intelligence technology on human society, significant controversies persist theoretical and practical considerations for owning artificial intelligence products, yet a reasonable and comprehensive solution to the issue remains elusive. Based on this premise, the authors of this paper assert that the users of artificial intelligence should have the right to copyright artificial intelligence products, provide that the copyright of such products is adequately protected. This proposition offers a potential solution to the issue of artificial intelligence copyright ownership. Furthermore, at an institutional level, the current deficiency in attribution of copyright for artificial intelligence products to their users can be addressed by creating an artificial intelligence declaration system. It is noteworthy that the majority of scholars in theoretical circles do not believe that users should have the right to copy artificial intelligence products, and their perspectives possess their own rationale and systemic shortcomings. However, given the advancement of artificial intelligence technology, this issue can-not be overlooked. Therefore, it is hoped that both theoretical and practical circles will pay increased attention to the associated challenges of artificial intelligence products and address issues related to their protection and attribution through the opportunity of pre-formulating artificial intelligence laws in China.

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