



Definition and Protection of the Legal Attributes of AI Creations

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Abstract

With the rapid development of artificial intelligence in recent years, AI creations have appeared more frequently and have specific meanings. Among the many theories in comparative law theory, except for the more reasonable theory of interest, the theory of works and other non-work theories all have certain shortcomings. Weighing the pros and cons and choosing the best, AI creations can be defined as a special kind of statutory interest. Within the framework of the theory of interest, reasonable protection of AI creations can still be achieved through restrictive interpretation of transaction practices, establishment of an express system for AI creations, reasonable balance and utilization of the public interests involved, and exploration of a scientific and reasonable interest balance mechanism.

Keywords

Artificial intelligence; creation; legal attributes; definition and protection

Since the 1950s, "the science of enabling machines to perform tasks that require human intelligence" has gradually become one of the core ideas of artificial intelligence [1]. In recent years, with the rapid development of science and technology and the rise of black technology, artificial intelligence, big data, the Internet of Things, and digitalization are increasingly attracting people's close attention. Among them, the legislation and judicial issues related to AI creations have become one of the hot topics in legal research. This article defines the legal attributes of AI creations and Necessary discussions on protection issues are underway.

1. Overview of Artificial Intelligence Creations

In recent years, with the widespread application of artificial intelligence technology, AI creations have frequently appeared in the fields of writing, painting, music, etc., and related disputes have also entered the field of judicial practice, but there is currently no authoritative concept of AI creations.

1.1 Artificial Intelligence

Some people believe that artificial intelligence refers to machines that can perform tasks instead of human intelligence [2]. Artificial intelligence gradually achieves the ultimate goal of being infinitely close to or even surpassing the human brain through data "learning" and algorithm "engines". It is mainly used in machine learning technology, natural language processing technology, image processing technology, human-computer interaction technology and other fields. In a broad sense, artificial intelligence can refer to any tool that uses a specific computer program algorithm to achieve a certain function; in a narrow sense, artificial intelligence generally refers to software or programs that can complete specific tasks through big data and artificial intelligence technology without human participation. Artificial intelligence has been gradually transformed from the "weak artificial intelligence" stage to the "strong

artificial intelligence" stage, and the possibility of developing to the "super artificial intelligence" stage is not ruled out. At present, although artificial intelligence is far from the ultimate goal, it already has a good creative ability.

1.2 Artificial Intelligence Creations

AI-generated products are ubiquitous, but they are not completely equivalent to AI creations. Based on the degree of AI participation and contribution, existing AI-generated products can be roughly divided into two categories. The first category of AI-generated products generally refers to the technological achievements created by humans using AI tools. Humans themselves still play a decisive creative role, and AI only plays the role of "assistant". The second category of AI-generated products generally refers to the technological achievements generated by AI systems themselves with little or no human intervention, in which AI plays the role of "creator" or "inventor" [3]. The AI creations discussed in this article mainly refer to the second category of AI-generated products mentioned above.

2. Definition of the Legal Attributes of AI Creations

One of the core issues in the discussion of the legal attributes of AI-created works is whether AI-created works are works in the sense of copyright law. Various theories have been initially formed in legal studies by answering questions such as "whether AI can be an author, whether AI-generated content meets the formal requirements of a work, whether AI-generated content meets the substantive requirements of a work, and whether the process of AI-generated content is considered a work of creation" [4].

2.1 Main Theories and Viewpoints

At present, there is a basic consensus in academia that AI creations are objects of civil law protection, but there are varying degrees of disagreement in the understanding and choice of specific protection, which can basically be divided into the work theory and the non-work theory.

- (1) The work theory, which includes the objective standard theory [5] and the tool theory [6]. The objective standard theory argues that a work that formally meets the objective elements of a work can be considered a work under copyright law, but it ignores the creativity and substantive elements of a work. The tool theory argues that artificial intelligence creations completed by humans using artificial intelligence as an auxiliary tool are works protected by copyright law when they meet the elements of a work, but it ignores the difference between artificial intelligence and auxiliary tools. In addition, the work theory cannot fully answer the relationship between artificial intelligence and the author. Therefore, the work theory has certain flaws.
- (2) The non-work theory, including the information right protection theory [7], the patent right theory [8] and the interest theory [9]. The information right protection theory argues that AI creations are actually information with protection value and significance that is disseminated on the Internet and other media, but information rights are only a legal concept in China. The patent right theory argues that technical achievements that fall within the scope of patent protection and meet the requirements of patent authorization can be granted patents, but it cannot fully answer the relationship between AI and the inventor. The interest theory argues that AI creations are actually the interest generated by treating AI as an original object, and the interest is protected by China's existing laws. Therefore, the interest theory is more reasonable.

2.2 Theory of Income

The author agrees to define the legal attributes of AI creations as a special kind of interest based on the following considerations: First, under the existing legal system, because the copyright holders in my country's Copyright Law are limited to "Chinese citizens, legal persons or other organizations", AI cannot become an author, nor can it be regarded as an author, unless the Copyright Law is amended. Secondly, as far as AI creations themselves are concerned, because they are essentially the products of AI, they are substantially different from human creative thinking, inspiration and personality, and cannot meet the substantive requirements of "originality" and "intellectual achievements" of works. Thirdly, from the perspective of the relationship between AI creations and AI, they are not the accessories, value-added benefits or products of AI. Recognizing them as interest is conducive to maintaining the stability of the existing legal system, saving the cost of amending laws, stimulating the enthusiasm of researchers, balancing the interests of all parties, and better avoiding secondary protection of rights, and is conducive to properly solving practical problems such as ownership, circulation and infringement of rights.

The author further believes that AI creations are statutory income, not natural income. The main reasons are: First, although there is no statutory concept of income in China's legislation, income is divided into statutory income and natural income. In theory, the two types of income are different in terms of specific natural laws, derivative laws, static or dynamic property, etc. In comparison, AI creations are more in line with the characteristics of statutory income. In other words, the formation of AI creations is independent of AI itself and is a certain computer logic formed based on the specific algorithm of AI itself, which is different from specific natural laws. Although users do not participate in the "creation" process of AI, the production of AI creations cannot be separated from the use of AI itself, which is different from derivatives. AI creations are dynamic property in the relative usufruct legal relationship, which is different from the static property in the absolute property legal relationship. Second, from the perspective of the income attribution rule established in Article 321 of the Civil Code of China, it is more realistic and reasonable to define AI creations as statutory income. On the premise that there is no special agreement on the ownership of rights, when there are multiple usufructuary rights holders of the same AI creation, the ownership rule that natural fruits are obtained by the usufructuary rights holders will inevitably lead to actual rights conflicts. However, if the ownership rule that statutory fruits are obtained according to trading practices is followed, and the trading practices are clearly limited to be interpreted as acquisition by the AI rights holder, the rights conflict problem can be effectively avoided.

3. Legal Protection Paths for AI Creations

Within the framework of the interest theory, a reasonable interpretation of trading practices can better resolve the issue of the attribution of AI creations as statutory interest in the absence of special agreements. However, taking into account situations such as special agreements, the following systems can also be used to try to appropriately supplement or improve the existing system in order to achieve effective legal protection for AI creations.

3.1 Establishing a System for Clearly Indicating AI Creations

It is clear that AI rights holders have the obligation to make special marks on AI creations when they are created, so that the general public can know that they are AI creations, to distinguish them from intellectual achievements independently completed by humans. This can better avoid conflicts between AI creations and human intellectual achievements, and can also better prevent others from maliciously applying for legal protection for AI creations as their own intellectual achievements independently completed. In the event of a dispute, such special marks that cannot be changed can also become important evidence materials.

3.2 Reasonable Balance and Utilization of the Public Interests Involved

For a long time, the reasonable balance between private rights and public interests has always been one of the core issues faced by the field of intellectual property. Artificial intelligence itself contains unlimited "creative" prospects. Artificial intelligence creations are different from objects in the general sense. Because they are "quasi-intellectual achievements", they have certain public interest attributes. Promoting the development level of intellectual property rights in the whole society and pursuing the public interests of the whole society are one of the ultimate goals of encouraging transactions and creation. In order to maintain and give full play to the "creative" enthusiasm of artificial intelligence as much as possible and prevent the decline of the "creative" use of artificial intelligence, in addition to the overall circulation of artificial intelligence rights, it is possible to consider making necessary restrictions on the exclusive or proprietary licenses of artificial intelligence rights holders to achieve balanced protection of private rights and public interests.

3.3 Explore a Scientific and Reasonable Mechanism for Balancing Interests

When AI rights holder A licenses B and C to use the AI creations separately according to law, and stipulates that the AI creations shall be obtained by the licensees, different licensees may "create" the same or similar AI creations using AI, thus generating a conflict of rights. If A later licenses D to use the AI creations, the reasonable use rights of other licensees and the rights of the AI creations already obtained by the previous licensees may also generate a conflict of rights. From the perspectives of protecting transaction security, protecting the reasonable expectations and trust interests of good-faith third parties, and reasonably balancing the interests among licensees, we can refer to the publicity and adversarial system of property rights, establish an AI licensing contract and an AI creation registration and filing

system, and cannot confront good-faith third parties without registration and filing, thereby reasonably balancing the rights and interests among the licensees.

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