

From the Perspective of Originality: Analysis of the Legal Nature of Artificial Intelligence Products

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Abstract. With the rapid proliferation of advanced artificial intelligence, such as GPT, the volume of AI-generated content on the internet has surged significantly. Consequently, the question of whether AI-generated content should be safeguarded by copyright law has emerged as a critical issue in both academic and practical domains. The determination of the eligibility of AI-generated content for copyright protection hinges on the assessment of its originality. Current research in the field of AI-generated content copyrightability has brought to light two distinct standards of originality: subjective and objective. However, a challenge arises when weighing the merits and drawbacks of these two standards. Given the inherent complexity of AI-generated content, a singular standard may not comprehensively and accurately encapsulate its attributes. Therefore, the most judicious approach at present appears to be a fusion of the subjective and objective standards, thereby embracing a more comprehensive framework that accounts for the nuanced nature of AI-generated content and its potential for originality under copyright law.

Keywords: Artificial Intelligence generated content, Legal attribute, Originality.

1. Introduction

Since 2023, generative artificial intelligence based on GPT architecture has quickly emerged in the circle with its strong imitation of humanity, high intelligence and versatility. GPT is an advanced generative artificial intelligence that breaks through the primary simple artificial intelligence. It innovatively realizes the high degree of integration of artificial intelligence and natural language, and forms the ability of natural language understanding and multi-modal content generation through large-scale pre-training models. Artificial intelligence represented by GPT has created a new era of cultural copyright in which artificial intelligence-generated content and traditional human-created works are parallel, and it is highly likely that the former will dominate in the foreseeable future. Whether artificial intelligence-generated content (AIGC) can be protected by law as copyright object has become an unavoidable legal issue in the era of strong artificial intelligence [1].

Whether AIGC meets the object requirement of copyright is a preemptive and guiding issue for further discussion of its right ownership, right exercise and right restriction, which must be clarified first. The consideration of whether AIGC meets the object requirement of copyright can be transformed into the choice of originality criterion of works to some extent. The originality of a work is a concept of both instrumental and policy significance. The choice of originality criteria directly determines the category of works. The judgment of originality elements in works is of great significance but full of mystery. At present, there are two kinds of views on the criterion of originality in the academic circle, which are the subjectivism criterion of originality and the objectivism criterion of originality. This paper will focus on these two viewpoints to analyze and comment on, in order to clarify the precursors and leading problems related to artificial intelligence products.

2. The Subjectivism Standard of Identifying the Originality of the Works

2.1. Subjectivist Standard Theory: The Process of Independent Creation is An Essential Part of the Composition of A Work

The theory of subjectivism standards suggest that in assessing the feasibility of an object, there is a subjective spiritual world independent of the objective realm. The author crafts a unique work from this world through a process of "creating something from nothing", with the work serving as a representation of the author's subjective conception [2]. The core principle of the subjectivist standard lies in the idea that a work originates from the independent creative process of the author, branding the creative object with the author's identity and imbuing it with unique style and characteristics that set it apart from other works. In essence, subjectivist standards highlight the author's creative process, embodying a form of "author-centralism" at its core.

The subjectivist criterion for judging the originality of a work is derived from the comparing the originality of a work to the novelty of an invention in patent law. For example, according to the theory of French copyright law, originality is considered the cornerstone of copyright, distinguishing it from the fundamental standard of industrial property, namely novelty. The measure of originality is subjective, that is, originality is the mark of individuality produced by creative effort. Novelty, on the other hand, is objective and measurable, as it is defined by the absence of similarities to the past. Furthermore, originality and value share the same meaning [3]. In his *Principles of the Philosophy of Right*, G.W.F. Hegel emphasized that "artwork is the embodiment of thought formed from external materials [4]." As a prerequisite of factual behavior, creation has a basic position and should be regarded as the primary reference standard for originality judgment.

There are also domestic scholars who insist on subjectivist standards in judging originality. For instance, scholar Wang Qian adopts a "negative view" when confronted with the debate surrounding the legal nature of artificial intelligence. Professor Wang Qian took the similarity between the content generation process of artificial intelligence-generated products and human works in terms of expression as a starting point to analyze whether they fulfill the requirements of originality. He believes that the "independence" and "creation" required by copyright law for creations are unique to humans. Artificial intelligence, as a kind of machine, does not have the creative consciousness, personalized emotions and choices that humans have. From the perspective of the operation process of artificial intelligence technology, the generated products are the result of the application of algorithms and rules. The "learning" ability of artificial intelligence is essentially the imitation and practice of a pattern, rather than truly intelligent learning [5]. Furthermore, there are numerous scholars who support the use of subjectivist standards in judgment. For example, some scholars advocate that the judgment of whether the content generated by artificial intelligence is a work must be considered in conjunction with inherent process factors such as creative intention [6]. Some scholars argue that although the results of pure "artificial intelligence creation" meet the external standards expressed in copyright law, they do not meet the internal requirements that the work should constitute an intellectual creation [7]. In short, the subjectivist standard holds that the process of independent creation is a necessary condition for the object of copyright law.

2.2. Commentary

Comment Original subjectivism focuses on the uniqueness and originality of creation. The continuous accumulation of artificial intelligence data will increase the computing power of artificial intelligence, and the specific generated products will depend on the arrangement and combination of artificial intelligence. Developers or users of artificial intelligence cannot accurately predict the results of such permutations and combinations. Although the data is provided by humans, the specific expression results depend on the arrangement and combination carried out by artificial intelligence using its computing power. The final product thus represents the independent creation results of artificial intelligence. In short, the creative process of artificial intelligence has a certain degree of autonomy. It does not complete its own works by copying or plagiarizing other people's works, nor

does it completely follow human instructions. Humans cannot specifically predict the content of the final work completed by artificial intelligence.

3. The Objectivism Standard of Identifying the Originality of the Works

3.1. Objective Standard Theory: Objects has Workability as Long as it has the Appearance of Copyrighted Works

Objects that have the appearance of copyrighted works can be considered as works, which is the objective standard. To be more specific, when judging the workability of an object, the only factor that should be taken into account is the independent and ultimate work instead of the subject and process of creation [2]. The key point of this standard is the judgment of works should focus on the final result of the entire creation process, the work itself, the final manifestation and existing form of a creator's personality and wisdom. It serves as a bridge bonding creators and viewers. In other words, an author's character is defined by what he or she writes [8]. The connection between the author and the reader will be as illusory as a castle in the air without a work. Generally speaking, objective standard is the embodiment of "work centrism", which emphasizes the creation results of a creator.

As Ulmer said, Whether a work deserves legal protection should be judged on the basis of the originality and the public spiritual wealth contained in the work itself rather than the form and content of it [8]. In Copyright Law, many countries generally follow the Principle of Dichotomy of Thought and Expression. This means that the law only protects the final product-the original expression, the external form of expression and not the process of producing a work. Copyright Law does not protect the ideas of an author or the plots in their works. The law judges originality only according to the expression displayed. In this way, it can tell whether an intellectual property is a work. The law does not pay attention to the real intention and idea of the author, let alone how the author created the work [9]. As 17 U.S.C. §102 said, In no case does copyright protection for an original work of authorship extend to any idea, procedure, process, system, method of operation, concept, principle or discovery, regardless of the form in which it is described, explained, illustrated, or embodied in such work. And as TRIPS Article 9 (2)said, Copyright protection shall extend to expressions and not to ideas, procedures, methods of operation or mathematical concepts as such [9].

There are also scholars who support objective standard when judging the originality in China. Yi Jiming, Li Weimin and others advocate a positive theory when it comes to the legal attributes of artificial intelligence generated content. Yi Jiming thinks that the originality of artificial intelligence should be judged by objective standard and the object which has originality is the work protected by Copyright Law. As Yi Jiming stated, the originality standard in Copyright Law should lean towards an objective one. The determination of whether objects are different from the existing works should be based on the form of expression [10]. In Li Weimin's opinion, a work possesses originality as long as it is completed independently, granting it independent copyright as well. In terms of creation facts, idea and emotion belong to the category of thought and expression belongs to the objective category. Copyright Law protects the original expression with objectivity. Though AI generated content is the result of application of arithmetic and logical rule, it meets the requirement of intellectual property as long as it has external originality performance. Accordingly, artificial intelligence generated content should be protected by law too [9]. In fact, most scholars propose to judge by adopting objective standard. For instance, some scholars believe that evaluating the author's contribution through an objective standard rather than subjective psychology is more feasible in practice during the creating process [11]. Others argue that the uncertainty in judging the attribute of AI generated content from a process-oriented perspective can be effectively solved by affirming them from a result-oriented perspective [12]. In a word, objective standard states that an object can be regarded as a work if it is in line with the appearance feature of a copyrighted work.

3.2. Commentary

The point of judging the attributes of artificial intelligence products based solely on objective standard needs to be considered dialectically. On the one hand, this opinion has some reasonability. It attaches importance to the work itself and affirms the status of artificial intelligence generated content. It also gives full respect to the creative achievements of artificial intelligence. On the other hand, this view has some limitations too. It focuses too much on work, the consequential factor, but ignores other process factors, such as the author's intention and method of creation. When deciding the attribute of AI generated content, consequential factor and process factor are both prominent and should be used as the basis for judgment. A more comprehensive conclusion will be made only by comprehensively evaluating both consequential factor and process factor. Ignoring any one factor will result in a one-sided judgment. As a consequence, a more reasonable approach currently is the fusion of subjective and objective standards.

4. Identify the Originality of the Works Based on the Fusion of Subjective and Objective Standards

4.1. The Interaction and Integration of Subjective Standard and Objective Standard

In the judgment of copyright object, not only does the absolute subjective standard ignore the mapping between AI creation and works, but also violates the appearance principle of the winning transaction in the market economy, which will lead to the increase of the economic cost of commodity transaction [1]. And the absolute objective standard may inappropriately expand the scope of the objects protected by the Copyright Law. Based on this, adopting either subjective standard or objective standard to determine the copyright object of artificial intelligence generated content, artificially separates the objective connection between the creation process and results, which may lead to the collapse of the copyright legal system. The binary judgment logic of originality in works that combines subjective and objective standards is the correct approach to determining the object of copyright, which can effectively solve various problems in the process of determining a certain object of work from a single perspective, and provide theoretical support that conforms to technical rationality for the analysis of the object of copyright generated by advanced artificial intelligence [1].

Before 1850, subjective standard was mainly adopted to determine whether the objects are protected by copyright law. After 1850, due to the final status of works in the creation process, the objective standard was efficient in the process of copyright object judgment. So the objective standard gradually replaced the subjective standard. However, this transition doesn't go only one way. Given the logical connection between the creative process and outcome and the complexity of infringement forms, referring to subjective standard has practical significance, which is the integration of subjective standard and objective standard [1]. Therefore, when analyzing the legal nature of artificial intelligence products in practice, it's necessary to adhere to the objective standard as the main standard and adopt subjective standard at the same time. Meanwhile, the specific condition should be analyzed specifically. Firstly, judge whether the AI product conforms to the appearance characteristics of the work. Secondly, judge whether it reflects the process of independent creation. Only when the above requirements are met simultaneously can it constitute the object, which is protected by the Copyright Law.

4.2. Commentary

The determination of the originality judgment criterion is of great significance. In the context of the continuous development of artificial intelligence, it is difficult to balance the relationship between artificial intelligence creators and the interests of the public in the information technology environment by adhering to the traditional originality judgment standard. However, due to the stability and backwardness of the law, it is not realistic to modify the existing law when the

technological innovation exceeds the original cognition. So the interpretation of the existing legal terms should be enriched. The adoption of the new originality judgment criteria is imminent.

At present, domestic and foreign scholars mainly adhere to the subjectivism standard and objectivism standard to define the generation of artificial intelligence. However, due to the increasing depth of artificial intelligence participation in creation, both the original subjective standard and the objective standard can't effectively define the generation of artificial intelligence, which is not conducive to the development and improvement of China's copyright legal system. Based on the comprehensive analysis of subjective standard and objective standard, the paper puts forward the integration of subjectivism and objectivism. Emphasizing the relationship between creative behavior and results, analyzing the problems more comprehensively, and providing a strong guarantee for the qualitative nature of artificial intelligence products.

5. Summary

Through research, this paper believes that the integration of subjective and objective standards should be used to qualitative the AI generation. On the one hand, the subjectivism standard ignores the internal relationship between creation and work. On the other hand, the objectivism standard improperly expands the scope of the object protected by copyright law. The application of the two standards alone can not determine the AI products comprehensively and effectively, it is significant to determine the new judgment criteria. Using the integration of objective standard and subjective standard can adopt the advantages of two standards and accurately define the artificial intelligence products according to the actual situation, so as to promote the development and improvement of China's copyright legal system. However, this paper only summarizes the qualitative method of AI products new standard's use, does not elaborate the corresponding process in detail. Therefore, in the future, the specific application methods of the new standard can be further clarified, so as to facilitate the in-depth development of research, which is good for realizing the accurate characterization of artificial intelligence products.

Author Contribution

All the authors contributed equally and their names were listed in alphabetical order.

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