

# *Determination of Qualified Subjects of Artificial Intelligence from the Perspective of International Law*

Yue Cui

*Department of Laws, Dalian Ocean University, Heishijiao Street, Dalian, Liaoning, 116023, China  
1208263529@qq.com*

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**Abstract:** The increasing development of artificial intelligence technology has made the work that today's computers can do so incredibly complex that even the designers and makers of "artificial intelligence" themselves are forced to think about it. Since the emergence of AI creations, the issue of property rights has been an emerging topic that has had an impact on the current law. This article analyzes whether artificial intelligence can be the subject of copyright from the perspective of international law.

## 1. Introduction

Nowadays, artificial intelligence is increasingly effective in independently inventing intellectual achievements, and can also participate more in the process of creation, using itself as a source of creativity. Artificial Intelligence, represented by GPT, has ushered in an emerging era of cultural copyright in which Artificial Intelligence Generated Content (hereinafter referred to as AIGC) parallels traditional human-created works, and will most likely be dominated by the former in the foreseeable future. Whether AIGC can be legally protected as a copyright object has become an unavoidable legal issue in the context of this technology. Long before Chat GPT was introduced and caused a sensation, Google's Meena, Meta's Blender Bot, and other primitive AIs have achieved high-quality human-computer dialogues, but their reliance on pre-defined statistical models to generate only simple content has limited their ability to solve tasks, understand language, reason logically, generate accurate and long replies, and detect and recognize errors, etc. are limited to a low level.<sup>[1]</sup> The current inability of copyright law to regulate the generation of high-level generative AI represented by GPT is a pressing concern.

## 2. Positions of States

### 2.1 European Union

According to the European Union law and the laws of European countries, first of all, the machine cannot be the author in the copyright law. EU law does not specifically explain what is meant by "author", but in the long term legal practice, the EU has always insisted on a human-centered copyright system. On November 25, 2020, the European Commission published *Trends and Developments in Artificial Intelligence - Challenges for the Intellectual Property*

*Framework* (Final Report), co-authored by The Joint Institute for Innovation Policy and the Institute for Information Law at the University of Amsterdam (IViR - University of Amsterdam). The authors argue that there are four conditions that need to be met in order for an AI-assisted output to be considered a work: (1) a product of the literary, scientific, or artistic field (2) a product of human intellectual activity (3) the result of a creative choice and (4) an "expression" in the final product. The vast majority of AI outputs are in the "literary, scientific or artistic field", and there is at least some "human intellectual activity". Therefore, it should be recognized that "works created by artificial intelligence and robots on their own are not eligible for copyright protection".<sup>[2]</sup> In the AI auto-generated works discussed in this paper, the user simply enters the relevant instructions or prompts (prompter). In this process, the relevant text or images are automatically generated by the AI, and the user has no substantial original contribution to the process. As Bernt Hugenholtz and João Pedro Quint, leading authorities on copyright law in the European Union, have argued, in such automatically generated works "it is difficult to identify any creative choices made by a human user in the conceptualization, execution or editing phases of the work, except for user-generated prompts. .... Any AI-assisted output produced by such a system does not qualify as a 'work'."

## 2.2 United States

U.S. copyright law, similar to EU law, does not support the copyright ability of AI works. For example, in the famous "**Monkey Selfie Case**". In this case, the court denied the monkey's copyright even though it had already identified the selfie as being taken by a monkey. The reason for this is not that the photograph lacks "originality" in a purely formal sense, or that it is not the product of the macaque's independent labor or that the macaque lacks intelligence. Analyzing authors in copyright law always points to the "person". To constitute a work, it must be created by a person. Results that do not meet this requirement lack copyright ability. The United States Copyright Office has also consistently taken this position. The U.S. Copyright Office has explicitly refused to register copyrights for fully automated AI works, arguing that works "autonomously created by an AI without any creative contribution from a human actor" are "ineligible" for copyright protection. "Works for hire" in *the U.S. Copyright Act Attributes* copyright in works for hire to the employer as the author, and in the case of artificial intelligence, the maker or owner of the artificial intelligence is thus the original copyright holder. Under the principle of work for hire, the employer can be treated as the author, which in turn can more smoothly resolve the issues of whether AI can become a legal "person" and whether it can be protected by copyright law. However, at present, in China's intellectual property system has not clearly expressed the concept of works for hire, the concept of similar works for hire can not be exactly the same, and can only be regarded as one of the components of the works for hire, so it is difficult to implement the system of works for hire in China at present.

## 2.3 United Kingdom

In contrast to the practices of continental countries and the United States, the UK has adopted the Computer Generated Works (CGW) system. *The Copyright, Designs and Patents Act 1988* provides that copyright in computer-generated works belongs to "the person who made the arrangements necessary for the creation of the work". Under this provision, while the AI itself is unlikely to be the copyright holder of its works, the AI designer or business is likely to have such rights. In English judicial practice, the question of what constitutes a "person making the necessary arrangements" remains controversial. In the 2007 case of **Nova Productions Ltd v. Mazooma Games Ltd**, an English Court of Appeal case concerning copyright in computer games, it was held that the gamer

was not the author of the screenshots of the game and had not made any of the arrangements necessary to create the images.<sup>[3]</sup> Instead, the Court held that the person who had made the necessary arrangements for the creation of the screenshots was the developer of the game. Apart from the cases mentioned above, there is still a lack of cases concerning AI works. In the UK, copyright in computer-generated works is distinguished from copyright in general. Since works of artificial intelligence are not directly linked to the personality of an individual, copyright in computer-generated works first excludes moral rights such as the right of attribution and the right of integrity of the work.

## 2.4 China

Article 9 of the *Copyright Law of the People's Republic of China* (hereinafter referred to as the "Copyright Law") provides that: "Copyright holders include: (a) authors; (b) other natural persons, legal persons or unincorporated organizations enjoying copyright in accordance with this Law." Article 11 further stipulates that "the natural person who creates a work is the author", but "if a work is created under the auspices of a legal person or an unincorporated organization, on behalf of the will of the legal person or the unincorporated organization and for which the legal person or the unincorporated organization bears responsibility, the legal person or the unincorporated organization shall be regarded as the author". In addition, China has also provided for works in office in article 18 of the *Copyright Law*, a provision that has a more distinctive public ownership and socialist character. In the case of **Beijing Filin Law Firm v. Beijing Baidu Netcom Technology Co., Ltd.**, a dispute over copyright ownership and infringement of copyright, the court of second instance held that the scope of authorship of an artificial intelligence work should be limited to natural persons, with respect to a work formed by utilizing artificial intelligence software.<sup>[4]</sup> Neither the AI software itself, nor the developers and users of the software can be the authors of AI works, and such works cannot constitute works under copyright law. The court stated that "originality is not a sufficient condition for constituting a written work" to determine whether the article in question was a work under the copyright law, and held that "a written work should be created by a natural person" in accordance with the provisions of the copyright law, so the user and developer of the AI did not become the owner of the copyright of the article.

## 3. Inadequate

The rapid development of artificial intelligence technology will inevitably affect international law. Like all forms of law, international law assumes that all decisions are made by human beings, but how will international law respond when AI can one day act autonomously. Currently, international law is silent on the legal effects of decisions made by AI.

### 3.1 Lack of harmonized rules and regulatory bodies

Today, countries have not been able to harmonize their copyrights on AI. But regulating AI through a legal form such as a treaty is the ultimate goal we are trying to achieve, and it seems too early to say that we can achieve the goal of conventionizing AI through the gradual advancement of soft law to hard law. Since the rapid development of artificial intelligence, the impact on the law has had a wide impact around the world, and today's international legal system of intellectual property rights includes provisions on intellectual property rights in the domestic laws of each country and multilateral treaties on intellectual property rights signed. However, this system does not apply to all intellectual property adjustments. International organizations such as the World Intellectual Property Organization (WIPO) have not made uniform provisions in the form of a convention on

the attribution of "artificial intelligence creations", which is a specific new thing, and have not included artificial intelligence in the scope of the subject of intellectual property rights, so the law is unable to solve the problem of more and more intellectual property rights of artificial intelligence creations. Under such circumstances, it is worthwhile to explore in depth how to build a scientific and reasonable way to protect rights.

### 3.2 Inconsistent national practices in recognizing intellectual property subjects

As mentioned in the previous paragraph, today's international community has not reached a unified standard for the attribution of intellectual property rights to AI, nor has an organization constructed rules in this regard, which has led to different conclusions in practice in different countries when faced with the problem of determining the attribution of AI creations. In the *European Patent Convention Act*, European intellectual property rights have certain restrictions on the identity conditions of the right holder, who must be a natural person, a legal person or an organization; the object that wants to be protected by a patent must satisfy the condition of being highly technical, in addition to contributing to the science and technology that is currently available. This means that artificial intelligence cannot be the subject of European intellectual property rights; secondly, if the invention created by artificial intelligence is taken as the object of European intellectual property rights protection, the object must be technical, and the applicant must explain in detail where the technicality of the invention is embodied and what kind of contribution it will make; thirdly, if the invention is made by artificial intelligence, it may be in violation of the *European Patent Convention Law* that "the execution of an act of the intellect, a computer program shall not be recognized as an invention" and other relevant laws, and it does not make it possible for all the inventions and creations made by artificial intelligence to be granted patent protection. The lack of harmonization between the jurisprudence of the Court and the doctrine of scholars inevitably leads to confusion in dealing with similar issues in real life.

## 4. Measures

### 4.1 Development of a charter on artificial intelligence

The European Parliament believes that AI technology can bring a series of problems to modern society, such as privacy, security, conflict of laws, data protection, and so on. That is why the European Parliament has proposed a robotics charter to provide a general framework for the use of robots, and in the annex to the proposal it is also stated that the charter will take the form of a charter-style framework containing a code of conduct, including a code of conduct for robotics engineers, a code of conduct for research ethics committees when reviewing robotics protocols, and licenses for designers and users. In our general understanding, terms such as ethics charters, codes of conduct, professional codes and other related terms are a sign of self-regulation in the sector concerned. In 2001, the Organization for Economic Cooperation and Development (OECD) counted 256 codes of conduct that were derived from companies or some areas of business.<sup>[5]</sup> However, these charters and codes of conduct may have a different value than laws in general, and in fact "charters" and "codes of conduct" are not legal terms. Typically, they are a tool for managing employees, communicating with customers, and presenting to the world. They include voluntary commitments to rights, obligations, behaviors, and so on. These codes of conduct are part of soft law, which is used as a reminder of relevant matters or as a prelude to formal legislation at a later stage. The European Conference believes that adherence to the Robotics Charter is voluntary and that, in principle, the most immediate penalty for violating a non-binding code would be exclusion from the code. On the other hand, a "code of conduct" could also refer to a document with different

legal effects. In France, for example, all professions have their own codes of conduct, but only those drafted by French professional associations have the force of law. Professional associations acquire regulatory status only after the publication of the code, after which failure to comply with professional obligations may be penalized. So, in any case, if a code of conduct is not legally binding and is not enforced by contract, it remains only as a set of ethical guidelines that apply to those to whom it is addressed. But in any case, these codes of ethics, which are used to regulate the relations between the stakeholders involved, cannot be imposed on third parties, such as robot buyers, unless those obligations have entered into a contract. The notion of a user licence in the User Licence covered by the Charter therein may be difficult to understand; in practice, a licence refers to an agreement in which the holder of certain rights (in particular intellectual property rights) and the user set terms and conditions for the use of the product in question. The Parliament's proposal may therefore provide a model contract for such license contracts. Although the European Parliament addresses AI patents only in the introductory paragraph of its proposal, with respect to intellectual property rights, the Parliament hopes that the European Commission can take a neutral approach to AI technologies that can balance the interests of all parties on the basis of protecting innovation.

#### **4.2 Make every effort to harmonize domestic law with the provisions of international law**

Since the adjustment of AI intellectual property rights eligible subjects is ultimately the countries to reach bilateral or multilateral treaties, as a way to achieve the harmonization of rules. From the current practice of the domestic laws of various countries regarding the identification of the subject of artificial intelligence, the provisions of various countries are all natural persons, and if we eventually move towards the signing of a treaty that expands the scope of intellectual property subjects, there will inevitably be a conflict between China's domestic laws and the future treaty. In State practice, the relationship between the two is complex. In our country, the Constitution does not provide for the validity of treaties and domestic laws, which inevitably leads to confusion in judicial practice.<sup>[6]</sup> Contemporary society should not focus only on the construction of the rule of law at home, but should take care of the construction of the rule of law at home and abroad, so our country should no longer remain silent on the issue of the status of treaties and domestic law. With reference to the practice of various countries, our country has two options to choose from: first, to study carefully the existing legal system of our country as well as the treaties that have been signed, and to make express provisions in the Constitution to clarify the status of treaties in our country, which will not only unify the understanding of the domestic judiciary and the legal profession, and avoid any confusion in practice, but will also be conducive to helping our country to gain the moral high ground in promoting the construction of the rule of law at both the international and the domestic levels. The second is to revise domestic laws on the basis of the treaties acceded to. Artificial intelligence, as an emerging product, should be followed closely by the construction of relevant rules; treaties are the result of negotiations between countries, and the accession of a country represents that the treaty is in line with its own interests; revising domestic legislation on the basis of the treaty is not only an advancement in promoting the domestic legislation, but also safeguards the dignity of the domestic laws.

#### **4.3 Strengthening international cooperation on artificial intelligence**

In recent years, there have been more and more cases of disputes over patent protection in various parts of the world, which can reflect the current importance of intellectual property rights in the international arena; at the same time, it also reflects, from the side, that there are many unfair competition behaviors in the international intellectual property field. In the current situation, we

should increase the research efforts on common problems such as alienation and safety regulation of AI, clarify the principles of international cooperation in AI laws and regulations, ethics and morality, and make concerted efforts to meet the challenges posed by AI in key areas of international cooperation and research. The establishment of a good intellectual property system is not only conducive to the protection of innovation and development, but also can help us realize fair competition, so that all mankind can share the fruits of innovation. Strengthening the intellectual property construction system of all countries in the world will allow developed countries to carry forward their international style and actively share their quality experience in intellectual property rights with the rest of the world. Developing countries should learn from the experience of developed countries, build on their own development, improve their own capacity and realize their goals in the field of intellectual property.

## 5. Conclusion

Artificial intelligence brings great benefits to people's livelihoods and scientific research and development around the globe, while at the same time exposing countries to unknown challenges. We should not only pay attention to the achievements already made, but also keep an eye on the future impact of AI and its application in various fields on the law, as well as the fit and integration of AI technology with the existing legal norms, which will be continuous and constantly evolving, and face various uncertainties and incompleteness. Therefore, we should always develop science and technology with the concept of openness and cooperation, promote open cooperation in artificial intelligence in all aspects, promote the innovative application of artificial intelligence together with other countries in the world, carry out research on major international common issues in artificial intelligence, and strengthen cooperation in the legal system, ethical norms, international rules, and other aspects of the governance of artificial intelligence, so as to make artificial intelligence better for the benefit of mankind.

## References

- [1] Wang Qian. *Revisiting the characterization of AI-generated content in copyright law* [J]. *Political and Legal Forum*, 2023, 41(04):16-33.
- [2] Ding Xiaodong. *Deconstruction and Reconstruction of Copyright: Jurisprudential Reflection on the Legal Protection of Artificial Intelligence Works* [J]. *Legal System and Social Development*, 2023, 29(05):109-127.
- [3] Shen Lei. *Exploring the Copyright Law Status of Artificial Intelligence Generated Content* [J]. *Journal of Hubei Vocational and Technical College*, 2023, 26(01):79-84.
- [4] *Corporate Responsibility: Private Initiatives and Public Goals*. <https://www.oecd.org/daf/inv/corporate-responsibility/35315900.pdf>
- [5] Wang Meili, Hu Xiao. *Study on Qualified Subjects of Intellectual Property Rights in Artificial Intelligence --An Approach to International Law Electronic* [J]. *Intellectual Property*, 2019(10):4-15.
- [6] Li Weimin. *The Positive Determination of Artificial Intelligence Intellectual Achievements in Copyright Law-Discussion with Prof* [J]. *Oriental law*, 2018(03):149-160.