The Location of Generative Artificial Intelligence Service Providers: A Case Study of the First Global AIGC Platform Infringement

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Abstract: This paper examines the legal ambiguities surrounding generative AI (AIGC) service providers' dual roles as technology developers and content facilitators, analyzing China's first AIGC infringement case adjudicated by Guangzhou Internet Court. Through comparative study of China's Interim Measures for Generative AI Services and the EU AI Act, we identify critical gaps in current regulations—particularly in third-party oversight, technical transparency, and data compliance. The case ruling (e.g., exempting defendants from training data deletion but mandating enhanced keyword filters) demonstrates the challenges in assigning liability. We propose a dual-track accountability framework integrating data governance with infringement prevention, drawing on international models like EU content labeling and Singapore's collaborative governance. This approach aims to balance innovation with copyright protection in AIGC development.

1. Introduction

In today's digital age, generative artificial intelligence technology is developing rapidly at an unprecedented speed, which has profoundly changed the way information is produced and disseminated. With its strong innovation ability, this technology is gradually penetrating into various fields such as artistic creation, commercial application, scientific research, etc., bringing unprecedented experiences to people. From using artificial intelligence to generate exquisite paintings to assisting enterprises in making intelligent marketing decisions, generative artificial intelligence has shown great potential and vitality.

However, as with any emerging technology, generative AI poses a complex set of legal issues in its rapid evolution. Taking the first infringement case of global AIGC platform tried by Guangzhou Internet Court as an example, one of the controversial focuses in the case is that the legal positioning of generative artificial intelligence service provider (hereinafter referred to as service provider) is unclear. This vague zone makes it difficult to effectively curb infringement and the

legitimate rights and interests of obligee cannot be fully protected.

Accurately defining the legal status of service providers is crucial to resolving infringement disputes in the field of AIGC and promoting the healthy development of generative artificial intelligence technology. On the one hand, clear legal positioning helps to standardize the behavior of service providers, so that they pay more attention to legal compliance in the process of providing services and avoid the risk of infringement; on the other hand, it also provides a clear legal basis for obligee rights protection and enhances the operability of the law.

This paper will analyze the role of service provider from the angle of existing law, using domestic law and international law. By analyzing typical cases and interpreting relevant legal documents at home and abroad, this paper tries to clarify the responsibility boundary between service providers in the process of technology provision and content generation, and provide reference for perfecting legal regulation in the field of generative artificial intelligence.

2. The main points of the case and the arrangement of problems

2.1. The facts of the case

Plaintiff obtained the exclusive right to use the "Ultraman" series of works by legal authorization. This means that the plaintiff not only has the right to use and profit from the series of works, but also has been granted the right to defend any infringement of the copyright of the series in his own name.

Defendant is an artificial intelligence company that operates Tab. In the context of rich and diverse Internet content and increasingly personalized user needs, the defendant provides personalized content generation services to users through artificial intelligence technology to attract users and enhance the competitiveness of websites. However, in the course of market monitoring, the Plaintiff discovered anomalies. When the user entered keywords related to Ultraman on the Tab website operated by the defendant, the images generated by the artificial intelligence model of the website were very similar to the image of "Ultraman" for which the plaintiff had exclusive rights. From the appearance characteristics, gestures and movements of the characters to the color matching, these generated pictures are highly coincident with the plaintiff's "Ultraman" image, which is enough to confuse the general public.

The plaintiff believes that there are many dangers in this behavior of the defendant. On a commercial level, it may mislead the public into thinking that these generated images are somehow related to Plaintiff's "Ultraman" series of works, thus damaging Plaintiff's commercial interests. Consumers may reduce their purchase of the Plaintiff's genuine "Ultraman" products due to misunderstanding of the source of the pictures, resulting in a decrease in the Plaintiff's market share and loss of economic returns. In terms of brand image, unauthorized use of the image of "Ultraman" to generate images may negatively affect the brand image carefully created by Plaintiff. If the images generated are of poor quality or used for inappropriate purposes, the public may associate these negative impressions with the plaintiff's brand, reducing brand reputation and loyalty. In addition, the Defendant's unauthorized use of the image of "Ultraman" to generate pictures may infringe upon a number of copyright rights enjoyed by the Plaintiff on the works of "Ultraman," such as reproduction rights, adaptation rights, etc. Based on the above reasons, the plaintiff decided to file a lawsuit with Guangzhou Internet Court to safeguard his legitimate rights and interests.[1]

2.2. Reasons for decision

In the trial process of this case, the collection and examination of evidence played a key role in the direction of the case. The Plaintiff actively collected and submitted a series of evidences,

including authorization documents of "Ultraman" series works, comparative analysis report of pictures generated by Defendant's website and Plaintiff's works, etc., which fully proved that the pictures generated by Defendant's artificial intelligence model were substantially similar to Plaintiff's "Ultraman" works. At the same time, considering that the works of "Ultraman" have wide popularity and market influence, and have a large number of fans and audiences worldwide, the Defendant, as a provider of artificial intelligence services, has the possibility of contacting the Plaintiff's works. Based on the above facts, the court found that the defendant's conduct constituted infringement.

In terms of responsibility, the court upheld the principle of prudence and impartiality for in-depth consideration. The court did not simply rule on the cessation of violations, but made a comprehensive assessment. Although the defendant has taken measures such as keyword filtering, it has been found through actual testing that when other keywords related to Ultraman are input, the website can still produce substantially similar images. This shows that the measures taken by the defendant are not enough to completely prevent the occurrence of violations, and there are certain loopholes and deficiencies. Therefore, the court requires the defendant to take further keyword filtering and other measures to completely stop the infringement and eliminate the infringement on the plaintiff's rights and interests from the source.

The court made a careful judgment on the facts and law of the plaintiff's application to delete the involved Ultraman materials from its training data set. After investigation and verification, the defendant did not actually carry out model training behavior, and the model used may be obtained from a third party or secondary development based on open source model. In this case, there is no clear factual basis and legal support for requiring the defendant to delete the involved Ultraman materials. Therefore, the Court could not support the plaintiff's claim.

2.3. Problem sorting

Although the judgment of this case has solved some disputes to a certain extent, it also exposes many deficiencies in the regulation of infringement issues in the field of AIGC under the existing legal framework. Because the defendant did not actually conduct model training, the court did not support the plaintiff's application to delete the Ultraman materials involved in the case from its training data set, which highlighted the difficulty of effectively regulating materials provided by third-party service providers in the current legal system. In the technical architecture of generative artificial intelligence, third-party service providers play an important role, and the training data or technology they provide may have infringement risks. If third-party service providers cannot be held accountable and restrained, infringement may occur repeatedly in different links, and the copyright infringement problem in the field of AIGC cannot be fundamentally solved.

If we think about it further, we will find a series of key problems to be solved urgently. First of all, does a third-party service provider fall into the category of service provider? In practical business operations and technology applications, the line between third-party service providers and direct-to-user service providers is not always clear. They may participate in the provision of generative AI services in a variety of ways, but their status is not clearly defined by current laws. Second, the question of whether a service provider is a content provider or a technology provider remains controversial. Under different legal scenarios and business models, the role orientation of service providers may be different. This ambiguity leads to differences in the responsibility of each party when infringement disputes occur, which brings difficulties to judicial practice.

3. Qualitative characteristics of generative artificial intelligence service providers

3.1. The concept of generative artificial intelligence service provider in China's current law

In order to standardize the development of generative artificial intelligence services, China has issued the Interim Measures for the Management of Generative Artificial Intelligence Services (hereinafter referred to as the "Interim Measures"). This method clearly defines the concept of generative artificial intelligence service provider, which provides an important basis for us to understand the connotation and extension of this subject.

According to Article 22 of the Interim Measures, service providers refer to "organizations and individuals that provide generative artificial intelligence services by using generative artificial intelligence technology (including providing generative artificial intelligence services by providing programmable interfaces)"[2]. Professor Yao Zhiwei of the Law School of Guangdong University of Finance and Economics and the Artificial Intelligence Law Research Center of Guangdong University of Finance and Economics deeply interpreted this concept, pointing out that it includes two types: "developer" and "deployer".

The so-called "developer" is generally considered to be the main body of developing artificial intelligence models (hereinafter referred to as models). Japan's "Views on AI and Copyright-related Issues" defines this concept in detail: "refers to the parties who develop generative AI (pre-training model), collect training data, construct training data sets, and use training data sets for AI training." The developer's job is a complex and systematic process, the core of which is to form artificial intelligence models by (pre) training them with data. In this process, developers need to invest a lot of manpower, material resources and time, from data collection, sorting, labeling, algorithm design, optimization, to model training, evaluation, every link is crucial. For example, when developing an image generation model, developers need to collect a large amount of image data, and the quality and diversity of these data directly affect the effectiveness of the model to generate images. At the same time, developers also need to constantly adjust algorithm parameters to improve the accuracy and stability of the model.[3]

"Deployer" refers to the entity that provides generative AI services using AI models. Japan's "Views on AI and Copyright-related Issues" describes it as "AI service providers", specifically defined as "further training existing generative AI and providing AI users with software incorporated into generative AI."[4] This definition illustrates two characteristics of the deployer concept: first, in quite a few cases, the deployer will conduct secondary training on the developer's model in a "fine-tuning" manner. Fine tuning is based on a pre-trained model and further training the model with a specific dataset to make it more suitable for a specific task or scenario. For example, a generic language model can be pre-trained on a large scale, and deployers can fine-tune it with domain-specific text data to make it perform better at language generation tasks in that domain. Second, deployers need to "program" models into specific software or services in a certain way to provide services to AI users (i.e., end users). "By providing a programmable interface"(also known as API interface) mentioned in the Interim Measures is a typical "programming" method. The deployer calls the artificial intelligence model of the developer through the API interface to provide services. In practical applications, many enterprises integrate artificial intelligence models into their own products or services through API interfaces to provide personalized content generation, intelligent customer service and other services for users.

It should be noted that in practice, the subjects of developers and deployers can be united, that is, the same subject is both developers and deployers; they can also be separated, that is, different subjects are developers and deployers respectively. For example, some large technology companies have complete R & D and deployment teams that can independently complete the entire process

from model development to service delivery, while in other cases, small companies may focus on one aspect, such as deploying and applying models, while models are obtained from other specialized R & D organizations. However, both developers and deployers provide technical support for generative AI services, so service providers are both content providers and technology providers.

From the provisions of the Interim Measures and actual cases, service providers provide dual support in content and technology in the process of providing generative artificial intelligence services, playing the dual role of "developer" and "deployer". In the first global AIGC platform infringement case, the reason why the plaintiff did not delete the Ultraman materials involved in the case from its training dataset is indeed weak because the defendant did not actually perform model training. If the service provider is only positioned as a single content provider, it will not be able to effectively solve the continuation of infringement in the face of similar infringement. Therefore, it is particularly important to clarify the positioning of service providers, which is not only related to the fair adjudication of individual cases, but also of great significance to the healthy development of the entire AIGC industry.

3.2. Description of Generative AI Service Providers in the EU Artificial Intelligence Act

The EU Artificial Intelligence Act [5](hereinafter referred to as the Act), which came into force in 2024, has an important influence on legislation in the field of artificial intelligence. Although the bill does not directly define the generative artificial intelligence service provider, it indirectly covers the regulation and management of this subject by stipulating the obligations and responsibilities of relevant subjects.

From a content delivery perspective, the bill imposes transparency obligations on AI systems that generate content such as images, audio, video, and text. Article 53, paragraph 1, states that providers of AI systems capable of generating large amounts of synthetic content shall embed technical solutions to mark and detect in machine-readable format whether the output is generated or manipulated by AI systems, such as GPT-type tools for generating textual content, and their providers shall comply with this rule. This regulation means that in the content output link, the generative AI service provider is strictly regulated. With the development of generative artificial intelligence technology, more and more synthetic content is flooding the Internet, and the authenticity and source of these contents are difficult to distinguish, which brings trouble to the public. By requiring providers to embed technical solutions to tag and detect output content, the identifiability of content can be improved, allowing the public to clearly know what content is generated by artificial intelligence, and thus better judge the authenticity and reliability of information.

Article 53, paragraph 2, provides that if the generation or manipulation of content constitutes "deep forgery" and when generating texts intended to convey matters of public interest, the deployer must explicitly disclose that the content is artificially generated or manipulated, which further emphasizes the authenticity and identifiability of the content provided and guarantees the public's right to know. Deep forgery techniques can generate highly realistic fake images, videos, and audio that can be used for malicious purposes, such as spreading false information, engaging in fraud, and more. When matters of public interest are involved, such as news reporting, policy advocacy, etc., it is particularly important to ensure the authenticity of the content. By requiring deployers to explicitly disclose how content is generated or manipulated, the public can view this information more objectively and avoid being misled.

At the technology provider level, the Act imposes a set of technical requirements on providers of general artificial intelligence (GPAI) models. Article 56 (1) requires the provider to draft and

continuously update the technical documentation of the model, covering the training and testing process, a general description of the data sets used, evaluation results, etc., and key technical information such as model architecture, number of parameters, source and scale of training data, etc., to be recorded in detail. This requirement is critical for traceability and review of model technology. In the development of artificial intelligence technology, the training and optimization of models involve a large amount of data and complex algorithms. If there is no effective record and management, once a problem occurs, it is difficult to trace the root of the problem. By documenting key technical information in detail, regulators can review the development process of models to ensure compliance with legal and ethical requirements.

Article 56, paragraph 2, requires providers to formulate and disclose a summary of training content, including the source, type, and acquisition method of training data. These data are the basis for model training, determine model performance and application effects, and reflect the data provided in technology provision. Specification of elements. The quality and validity of training data directly affect the performance and output of the model. If the training data has problems such as infringement, bias, etc., then the content generated by the model may also have corresponding problems. By requiring providers to publish summaries of training content, public scrutiny of model training data can be exercised, prompting providers to pay more attention to data quality and legitimacy.

Although the EU bill does not directly define the role of technology and content provision of generative AI service providers, it clarifies the key position of technology provision and content provision in generative AI services by stipulating the obligations and responsibilities of relevant subjects, which provides us with useful references. In our country's legislative and judicial practice, we can refer to the experience of EU to further improve the regulation and management of generative artificial intelligence service providers.

3.3. Discussion of Generative AI Service Providers in Other Countries

In addition to China and the European Union, other countries have also actively explored legislation and policy formulation in the field of artificial intelligence. From Canada's Artificial Intelligence and Data Act, Britain's Artificial Intelligence White Paper and Singapore's Artificial Intelligence Governance Framework, we can get a glimpse of the definition of generative artificial intelligence service providers. These documents cover two key aspects of content provision and technology provision.

Canada Artificial Intelligence and Data Act: Although the Act does not give a precise definition of a generative artificial intelligence service provider, it can be inferred from its definition of artificial intelligence systems and related obligations. The bill defines artificial intelligence systems as technological systems that can autonomously or partially autonomously process data related to human activities through genetic algorithms, neural networks, machine learning, etc. to generate content, make decisions, give recommendations, or predict. If understood from a generative AI perspective, the entities that develop, design, and use such systems to generate content and deliver it to users can be considered generative AI service providers. For example, if an enterprise develops a generative text creation system based on machine learning algorithms, through which it provides users with content generation services such as news articles and copywriting, this enterprise falls into this category. In terms of technology provision, it is required for the main body of designing, developing and operating artificial intelligence system to evaluate whether the system is a high-impact system, and it is also necessary to establish data anonymization measures and records, which means that the main body undertaking technology research and development, system construction and operation maintenance provides support for generative artificial intelligence

service at the technical level, which is the key role provided by technology. By assessing the impact of the system, artificial intelligence systems with different risk levels can be classified and managed to improve the pertinence and effectiveness of supervision. The establishment of data anonymization measures and records will help protect user data privacy and ensure the legitimate use of data.[6]

UK AI White Paper: The White Paper adopts a principle-based "light-touch" regulatory framework that does not define a generative AI service provider, but emphasizes the regulation of entities that develop, deploy and use AI systems. For generative AI, those who use AI technology to develop applications that generate content, such as the development of image generation software, music creation tools, and the deployment of these applications to the market to provide services to users, can be identified as generative AI service providers. In terms of content provision, it is required to ensure that the content generated by artificial intelligence system conforms to ethics and legal norms, and ensure the safety and reliability of the content; At the level of technology provision, while encouraging innovation, the subject is required to follow relevant technical standards and norms during the development and deployment process to ensure the stability and safety of the system, such as ensuring the legitimacy and accuracy of model training data when developing language generation models, and ensuring the efficient operation of the system during deployment. This "light-touch" regulatory framework, while giving enterprises a certain space for innovation, guides enterprises to operate legally and in compliance through clear principles and norms, and promotes the healthy development of artificial intelligence technology.[7]

Singapore Artificial Intelligence Governance Framework: Singapore's governance framework for generative AI publishing builds a trusted ecosystem from nine dimensions. In the responsibility dimension, it covers model developers, application deployers and cloud service providers, which together constitute the responsibility system of generative artificial intelligence services and provide support for services from different levels. Model developers carry out algorithm research and development, model training and other work at the technical level, which belongs to the core strength provided by technology; application deployers will actually deploy the developed models and technologies to provide users with a generative artificial intelligence service interface, which is also a key link between technology and users. In the data dimension, the impact of data on the quality of model output is emphasized to ensure reliable data sources and compliance. No matter the collection, arrangement or labeling of data, it involves the technical foundation of generative artificial intelligence service and provides data support for generating content; and using these data to generate content and provide it to users is the embodiment of content provision. For example, in the field of image generation, the model developer trains the model by using a large amount of image data, the application deployer deploys the trained model to the online platform, and the user inputs instructions to generate images through the platform. In the whole process, the developer and the deployer are the generative artificial intelligence service providers, playing a role in technology and content provision respectively. Singapore's governance framework has built a comprehensive and systematic generative artificial intelligence service governance system through multi-dimensional standardization and management, providing a reference example for other countries.[8]

Although there is no unified and clear concept of generative artificial intelligence service provider in these three documents, they elaborate on the responsibilities, obligations and norms of relevant subjects from different angles around the provision of technology and content, which provides rich reference for us to understand the connotation and extension of generative artificial intelligence service provider. Through the comparison and analysis of relevant legal documents in different countries, it can be found that although the legislative thinking and emphasis of each country are different, they all recognize the importance of technology provision and content

provision in generative AI services.

4. Conclusion

With the first AIGC platform infringement case in the world, the judgment of Guangzhou Internet Court has safeguarded the plaintiff's rights and interests to a certain extent, and has made beneficial exploration on the handling of infringement problems in the AIGC field. Based on the detailed evidence provided by the plaintiff, the court held that the defendant's behavior constituted infringement, which conformed to the legal logic and factual basis, effectively protected the legitimate rights and interests of the copyright owner and provided important reference for the trial of similar cases. In terms of liability, the defendant is required to take further keyword filtering measures to stop the infringement, which reflects the prudent and fair attitude of the court and devotes itself to eliminating the infringement of the plaintiff's rights and interests from the source.

However, the court did not support the plaintiff's application to delete the Ultraman materials involved in the case from the defendant's training data set. Although the court based on the fact that the defendant did not actually conduct model training, this decision also highlighted the shortcomings of the current law in regulating AIGC infringement. Under the complex structure of AIGC technology, it is difficult to effectively regulate the potential infringement of materials provided by third-party service providers, reflecting the lag of law in dealing with emerging technologies. This judgment warns us that in the current rapid development of the AIGC industry, it is necessary to speed up the improvement of the relevant legal system to better adapt to the challenges brought about by technological development. Service providers acting as deployers rather than developers alone are not sufficient to solve existing problems. Service providers should assume responsibility as content providers and technical supporters. Only by combining technology and content can we prevent confusion with unclear responsibilities and better safeguard consumers 'rights and interests.

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