

The Protection of Derived Data Under Intellectual Property Law: A Neighboring Rights Framework

Yimei Liang¹

¹ School of Law, Wuhan University, Hubei, China

Correspondence: Yimei Liang, School of Law, Wuhan University, Hubei, China.

doi:10.56397/SLJ.2025.02.06

Abstract

Derived data has a great economic value. Compared with behavioral regulation, right protection can provide more comprehensive protection. Derived data has the characteristics of intangibility and scarcity, which is consistent with the object characteristics of intellectual property, so it is more suitable to build derived data protection system under the intellectual property law. Copyright protection and trade secret protection under the current intellectual property law have limitations, and it is more appropriate to adopt neighboring rights protection. A new data processor right is created under the neighboring rights system, and its rights are vested in the producers of derived data, but in order to achieve a balance between data protection and data circulation, a shorter period of protection should be established and fair use should be allowed in certain circumstances.

Keywords: derived data, intellectual property rights, neighboring rights

1. Introduction

1.1 Introduce the Problem

In December 2022, the “Opinions of the Central Committee of the Communist Party of China and The State Council on Building a Data basic System to Better Play the role of data elements” (hereinafter referred to as “Data 20”) pointed out that it is necessary to “explore the establishment of a data property rights system.” However, “Data Article 20” does not clarify the nature of data, and there are viewpoints in the academic circle, such as usufructuary right, data priority exclusive right, data industrial property right, new intellectual property right, and new property right. In general, there are disputes in the current academic circles about what kind of data rights belong to and what kind of

protection methods should be adopted. The discussion above should start from the essential attributes of data. Data itself is intangible property, which is quite different from the traditional object of real right and more consistent with the characteristics of the object of intellectual property. Therefore, the construction of derived data protection system under the intellectual property law has more advantages in terms of both the degree of conformity of the legal system and legislative cost. Therefore, it is necessary to analyze the legitimacy of using the intellectual property law to protect derived data based on its own characteristics.

2. Derived Data as Object of Intellectual Property

2.1 Definition of Derived Data

Raw data refers to the massive records obtained by the network operator based on the informed consent of the user in the operation process, and does not have the value of direct application. Derived data refers to the data with market value formed by processing, processing and refining the raw data through algorithms or models. Specifically, the difference between derived data and raw data is manifested in the following two aspects: whether it is independent of user's personal information; Whether it has been deeply processed.

First of all, whether it is independent of the user's personal information. Raw data comes from various sources, but the data involving personal information is controlled by the user, which emphasizes the protection in the sense of personality right. As for derived data, data enterprises clean the data involving personal information through "desensitization" technology, so users should not claim individual rights based on personality interests.

In terms of whether it has undergone deep processing, raw data is the mapping from the objective world to the data code, while derived data is the "new data" formed by cleaning, processing and processing the massive raw data.

2.2 Characteristics of Derived Data Under the Intellectual Property Dimension

China incorporated the object into the theoretical framework of the constituent elements of rights, and then formed the right analysis model of "subject — right — object", and the object became a necessary tool in the definition of civil rights. Therefore, the premise of whether derived data can be included in the intellectual property is that derived data conforms to the object characteristics of intellectual property. But in fact, the scope of the object of intellectual property is in a controversial state in the theoretical circle. Domestic scholars have put forward such theories as "intellectual achievement theory", "knowledge product theory" and "form theory". These theories are unable to explain some of the objects of intellectual property. Information theory is more comprehensive in explaining the objects of intellectual property. According to "information theory", intellectual property is essentially a property right created on specific information. Although the object of intellectual property has multiple forms, its essential characteristics include non-materiality, property

attributes and so on.

Derived data has the characteristics of intangibility and cannot be actually possessed by people. Data is not physically objective, but is generated digitally by devices such as network terminals and sensors.

Exclusivity is the essential element of the object of property right, and the object of real right naturally has exclusivity. An object in specific time and space can only be controlled by one person, so the interest in the object can only be realized by this person, thus the object has exclusivity. However, the same derived data can be controlled and used by more than one person at the same time. Is this contrary to the exclusivity required by property rights? Does the fact that the same derived data can be controlled and used by multiple people at the same time contradict the exclusivity required by property rights? The exclusivity of intellectual property is realized by distinguishing the object and the interest on the object. The object of intellectual property can be shared, but the interest generated by the object of intellectual property is forcibly allocated to the owner of intellectual property, so the object is shared, and the interest is exclusive. Derived data is similar to the object of intellectual property, and it is the intangible information, which determines that derived data can also be guaranteed by the similar "object sharing and interest exclusivity" of intellectual property to ensure its exclusivity and scarcity as property.

3. The Protection of Derived Data Under Intellectual Property Laws

3.1 Trade Secret Protection Path

Some scholars believe that undisclosed derived data meets the constitutive element of trade secrets such as "not being known to the public", "being able to bring economic benefits" and "taking confidential measures". Therefore, derived data such as algorithms, user data, etc. can be protected as trade secrets. Similar cases do exist in judicial practice. For example, in the case of Beijing He Chenliang and other trade secret infringement disputes, the court held that the user information in the plaintiff's website database met the constitutive requirements of trade secrets.

Under normal circumstances, Derived data of enterprises with certain protection measures can meet the three constitutive element of trade secrets, but the protection path of trade secrets

still has defects. Firstly, only derived data with confidentiality measures can meet the constitutive element of trade secrets, which makes the path of derived data protection insufficient coverage. Secondly, it is also controversial whether the undisclosed derived data can meet the constitutive element of trade secrets. On the other hand, the security measures taken by many derived data are only some technical means, and it is still difficult to prove whether they can constitute legal security measures. Third, the value orientation of trade secret protection and derived data protection is different. The purpose of derived data protection is to promote the circulation and sharing of derived data, which may lead to data monopoly if it relies on or allows the protection of derived data through trade secrets for a long time.

3.2 Copyright Protection Path

In copyright law, derived data is often protected in the form of compilation works. Article 15 of China's Copyright Law and Article 10, paragraph 2, of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) have provisions. In judicial practice, there are also copyright protection mode judgments, such as Jinan White Rabbit v. Foshan Dingrong case and JCR journal citation report case, the court protects the database as a compilation work, and considers that the selection of its content is intellectual creation.

Adopting the copyright protection path is indeed a solution to the current problem of derived data protection, but there are still some limitations. On the one hand, many derived data are difficult to meet the constitutive element of originality required by copyright. It seems that the requirements of assembly works are also satisfied in the process of generating derived data. However, sometimes the data enterprise can play a limited role in arranging raw data when processing the data, and it is difficult to meet the requirements of the originality of the assembly work. On the other hand, the purpose of copyright protection is inconsistent with the value of derived data itself. The value of derived data lies in the formation of useful information through deep mining, analysis and processing of raw data, while the compilation works can only protect the specific order formed by the data after selection and arrangement.

3.3 Creating a New Type of Intellectual Property

Under Intellectual Property Law

Article 123 of China's Civil Code openly defines the object of intellectual property, which seems to provide a legal basis for the inclusion of derived data in the object category of intellectual property. In recent years, many scholars have proposed to establish a new intellectual property under the framework of intellectual property. Gao Yang believes that enterprise derived data conforms to the characteristics of intellectual property objects, but it is different from traditional intellectual property objects, and a new type of intellectual property rights should be established for enterprise derived data.

The creation of new intellectual property rights under the intellectual property framework seems to be theoretically justified compared with the previous trade secret protection path and copyright protection path, but the doctrine requires human participation in the process of generating derived data, which means that only part of derived data can be included in the new intellectual property rights, and a large amount of economically valuable data is excluded from the scope of intellectual property rights objects. On the other hand, considering the cost of legislation and the arrangement of legal system, the creation of new type of intellectual property rights is not an optimal choice. The creation of a new type of rights object system, not only need to legislators based on the practical development of long-term interest measurement and observation, but also need to pay a huge system cost.

4. Proposed Model for Neighboring Rights Protection of Derived Data

Considering that it is difficult for many derived data to meet the originality requirement of copyright, some scholars believe that derived data should be protected by neighboring rights. Some scholars believe that the scope of neighboring rights should be reasonably expanded in view of the practical needs, and the databases that lack originality should be included in the scope of protection of "neighboring rights". Some scholars also believe that the value of derived data generated on the basis of the raw data coincides with the legislative purpose of the neighboring right, and therefore derived data is protected by the neighboring right. In addition, there are scholars from the extraterritorial law practice, combined

with the EU Database Directive that the neighboring right protection model is feasible, which can protect the labor contribution of the data enterprise without affecting the flow of data sharing.

The problem to be considered in adopting the neighboring rights to protect derived data is that in the theory of copyright law, neighboring rights are usually regarded as the rights of the distributor of the work. Under the concept of purveyor's rights, the original data on which derived data is generated can hardly be considered as a work, so it is difficult for derived data to be included in the framework of neighboring rights. Therefore, the discussion on the adoption of neighboring right protection for derived data should start from the essence of neighboring right and the criteria for judging the object.

4.1 The Nature of Neighboring Rights

In the understanding of the nature of neighboring rights, "the right of the distributor of the work" is the earliest and most representative doctrine. This understanding is indeed consistent with the circumstances under which neighboring rights first arose. Neighboring rights were originally created to solve the problem of incentives for the distributors of works, in this case, it is also more appropriate to describe neighboring rights as "the right of distributors of works".

However, there are limitations in the understanding of "the right of the distributor of the work" in the face of some modern neighboring rights, in which the object of some neighboring rights is not related to the work, and the owner of the neighboring rights is not the distributor of the work. In this case the concept of "the right of the distributor of the work" is also not so relevant. Photographs under the German Copyright Law and "set designs, photographs, letters and portraits, engineering drawings" under the Italian Copyright Law can hardly be recognized as the fruits of the disseminator. A radio station broadcasting a tape recording of the sounds of birds and streams collected in the mountains in the early morning through a radio signal does not contain any work that meets the requirement of originality.

4.2 Criteria for Determining the Object of Neighboring Rights

The perception of the nature of neighboring

rights affects the judgment standard of the object of neighboring rights, such as the aforementioned "work distributor's rights" why it can be widely recognized, that is, because of the existence of a certain connection between the object of neighboring rights and the object of copyright works. However, the object of neighboring rights does not completely follow the requirement of "related to the work". There are still some non-copyrighted works or other specific information on the establishment of neighboring rights, such cases of neighboring rights object judgment standard breakthrough "relevance to the work" constitutive elements. In this case, how to construct a new judgment standard for the object of neighboring rights? This needs to combine the judgment of the essential attributes of the object of the neighboring right and the protection purpose of the neighboring right system to jointly design.

The aforementioned "information theory" of intellectual property objects can effectively explore the commonality between works and neighboring rights objects, i.e., both works, and neighboring rights objects are information. The "information theory" can not only provide a strong explanation for the current relationship between works and neighboring right objects, but also provide space for the introduction of new types of neighboring right objects, instead of facing the limitations of some neighboring right objects as in the case of the previous "right of the distributor of the work". In this paper, we believe that a more comprehensive understanding of the object of neighboring rights should be information that is not original, and the relationship between works and the object of neighboring rights is clearer from the perspective of the "information theory". Unlike the correlation that the object of neighboring right is "attached" to the work under the "work distributor's right" theory, both of them are valuable, reproducible and transmittable information. The distinction between the two is based on the core constituent element of originality of the work. Although the absence of originality does not positively define the scope of neighboring objects, the exclusion of non-neighboring objects is a condition for the definition of neighboring objects. The exclusion of non-neighboring objects is also a condition for defining the objects of neighboring rights.

On the other hand, in terms of the protection purpose of the neighboring rights system, the

neighboring rights system focuses on protecting the interests of the relevant investors. The neighboring rights system was created to protect contents that cannot be covered by the copyright system, such as performances, sound recordings, etc., where the subject does not satisfy the requirement of authorship, or the object does not have the originality required by copyright. Thus, the neighboring right holder is positioned as the distributor of the work, and then the neighboring right system is constructed by analogy with the copyright system. The concept of “the right to disseminate works” in the neighboring rights system is an extension of the “theory of authorship” in the copyright, in order to maintain the unity of the theory when protecting emerging interests and to avoid being tarnished by investors.

It is the “hierarchical relationship” between neighboring rights and copyright in the “right to disseminate works” that makes the “originality” and “intellectual creation protection” emphasized in copyright extend to neighboring rights, ignoring the importance of manual labor, technical equipment and financial input. The protection of intellectual creations has been extended to neighboring rights, ignoring the importance of manual labor, technical equipment and capital investment. However, with the development of science and technology, new types of neighboring rights are constantly emerging, and the input of investors plays an important role in this process, if these investors are not protected, the transaction costs will be greatly increased. This shows that the object of protection of neighboring rights does not need to be original, but as long as in the process of dissemination of information in a particular spirit, art or technology type of labor input can be.

Another criterion for determining the object of neighboring rights that can be analyzed for the purpose of protecting investor input is the “non-creative input” criterion. This criterion not only conforms to the legitimacy requirement of “incentive theory”, but also can provide open-ended accommodation space for those intangible fruits that do not constitute works but need to be protected through the property right system. Of course, in order to avoid the blind expansion of the neighboring rights system, the “non-creative input” criterion is also subject to conditions, namely, the importance and maturity.

Neighboring rights system is to create rights on certain specific information protection, is a kind of exclusive, exclusive protection. It is also precisely because of the strong protection of the neighboring rights system that the determination of the object of the system should be more stringent. Therefore, the importance of “non-creative input” in specific information should be one of the judgment criteria. Taking derived data as an example, if derived data requires a lot of human, financial and technical inputs in the process of generating, but also generates good economic benefits, it can be judged that derived data is important. Strong encumbrance protection should also be accorded to it.

On the other hand, the maturity of the “non-creative input” is also one of the criteria. Although the protection period of different neighboring rights is different, once a neighboring right is established, it means that the specific information is protected for a long time and stably. Accordingly, the maturity of the “non-creative input” is also an important factor when examining new types of neighboring rights. Specifically, it should include two aspects: stability and longevity. Stability refers to the fact that the input of the particular information is repeatable rather than accidental, and its effect is controllable. Permanence means that the “non-creative input” has stabilized and will continue to do so in the future.

Returning to the policy considerations of the “non-creative input” standard, it recognizes the value of market factors such as capital and technology, and provides incentives for these factors to continue to be invested in the information field. The “non-creative input” standard also provides an “interface” to the neighboring rights system for specific information such as derived data, which does not directly reflect the function of dissemination like performances and audio-visual recordings. It is precisely this policy consideration of investor input protection that allows such special information products as derived data to become new types of neighboring right objects, providing them with pragmatic and low-cost legislative protection.

5. Construction of a Specific System for the Protection of Neighboring Rights to Derived Data

5.1 Subject of the Right: Data Processors

The new type of neighboring right created on derived data, the data processor's right, should be attributed to the producer of derived data, i.e., the data processor. It is because the data processor has invested human resources, capital and technology in the collection, processing and treatment of raw data, which satisfies the aforementioned criterion of "non-creative inputs", that he or she enjoys the corresponding rights and interests in derived data generated.

5.2 Content of the Right: Bridging Existing Legal Regimes

Similar to the content of the right of traditional neighboring rights, the right of the data processor right, which is a new type of neighboring right, refers to the right to license others to reproduce, distribute, and disseminate derived data to the public through an information network for remuneration. The content of the above right is the positive power of the data processor's right and the core of the data processor's right. The focus is on the data processor's ability to control and autonomously manage derived data it generates, and to realize the property value of derived data by means of data transactions. In terms of negative rights when the data processor's aforementioned positive rights are jeopardized by misconduct, the data processor can demand that the infringement be stopped, and damages be paid. Overall, the aforementioned positive and negative rights together constitute the content of the right of the data processor.

5.3 Limitations on the Exercise of the Right

Current domestic and foreign data-related regulations emphasize the importance of data circulation, which can stimulate the vitality of the data market, give full play to the value of data and promote the development of data elements. Therefore, it can be seen that if the excessive protection of data is contrary to the current development trend of the data industry, the generation of "data islands" is also not conducive to the data value of the data industry chain of all the main bodies of the excavation and utilization of data.

For the consideration of data circulation, rules should be set for compulsory circulation, compulsory use and allowing others to recreate under specific conditions. Therefore, in order to reduce the risk of abuse caused by over-empowerment of derived data, and to connect with the existing legal system of

neighboring rights and copyright system, the exercise of data processor's rights should be subject to certain limitations. Specifically, reference can be made to the fair use system under China's copyright law, whereby the use of derived data for personal study or research, the performance of official duties by state organs, teaching and research, etc. constitutes fair use.

In terms of the term of protection of rights, we can refer to the term of protection of traditional neighboring rights; we can also get inspiration from extra-territorial practice, as the EU Directive on the Legal Protection of Databases stipulates that the term of protection of database rights is 15 years. Because derived data based on the characteristics of the data, the speed of renewal is more rapid than traditional neighboring rights, if the same period of protection is given to derived data, it is not conducive to the circulation and re-development of derived data. Therefore, this article is more in favor of the establishment of a protection period of 15 years. The shortening of the protection period is more capable of realizing the balance between the protection of derived data and the development of data industry. Not only can it realize property rights incentives through the protection of data enterprises, but also can release more data resources into the public data field in a shorter period of time.

6. Conclusion

In the development of big data today, data has become an important production factor for national strategy and economic and social development. Derived data as a component of data its application value is of great significance in the era of digital economy. Through the development and utilization of derived data, it can effectively promote the exploration of the potential of data as a production factor. The construction of a data protection system for derived data can help to incentivize data enterprises to develop original data, promote the generation of derived data, and facilitate the circulation and trading of data. The intangibility and scarcity of derived data are in line with the characteristics of intellectual property objects, so it is more feasible to build a derived data protection model under the current intellectual property framework in terms of legislative costs. The neighboring right protection model of derived data can not only realize the harmony of intellectual property theory system, but also provide exclusive right protection for derived

data and at the same time realize the restriction on the rights of derived data producers, and finally realize the balance between promoting the circulation of data and incentivizing investment.

References

- GAO Yang. (2022). The Doctrinal Evidence of Derived Data as a New Type of Intellectual Property Object. *Social science Journal*, (02), 106-115.
- WANG Qian. (2014). *Intellectual Property Law Tutorial*. Beijing, China: China Renmin University Press.
- WU Gui-de. (2022). Examination and Protection of Commercial Data as Object of Intellectual Property Rights. *Intellectual Property Journal*, (07), 91-109.
- ZHANG Suhua. (2023). Legal Realization of Structural Separation of Data Property Rights. *Oriental Law Journal*, (02), 73-85.
- ZHENG Chengsi. (2009). *Copyright Law*. Beijing, China: China Renmin University Press.