

A Study of the Legal Construction of Data Property Rights

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Abstract: *With the rapid changes in technology and the rapid development of the Internet, data as important information materials have unique value attributes in some fields and create social wealth that cannot be ignored. As a new type of property right object, it can not only be protected as a civil right, but also have enough theories to support the development of data property. Therefore, it is important to consider data as property rights and construct the relevant legal system.*

Keywords: *data; property rights; legal regulation*

1. Introduction

In essence, data are not property, but they have the rationality and possibility to become property when they contribute unique value to human progress and development. Article 127 of China's Civil Code clarifies the property rights and interests of data in civil law, highlighting the basic consensus that data have property properties; however, the Civil Code does not provide detailed provisions on the specific rights connotation and legal rules of data property. With the increasing development of digital economy, the importance and urgency of constructing the right system of data property and clarifying its right rules on this basis are self-evident.

2. Theoretical and Practical Foundations of Data Proprietaryization

2.1 Theoretical foundation

Data, as a product of communication tools in the era of big data, does not have any meaning by itself and can be precisely positioned only after being given content. ^[1]There are four main views on the positioning of data ownership: new personality rights, intellectual property rights, trade secrets and data property rights. Among them, the "data property right theory" believes that the ownership of data property right belongs to the data right holder (the EU adopts the title of "data controller"), but this ownership right also has certain limitations, which means that the data holder or data controller cannot damage the data held or controlled by them. The data holder or data controller cannot dispose of the data they hold or control arbitrarily, and cannot damage the legitimate rights and interests of the relevant right holders, and in turn should divide and construct the relevant rights system based on the criteria of the existence form of information. ^[2]In this paper, we agree with this viewpoint and believe that data property right refers to the exclusive right of direct domination enjoyed by the right holder with data interest as the main content, and the acquisition of data property right is based on the lawful acquisition and collection of data, which belongs to the original acquisition.

From the viewpoint of legal types, data can be divided into government data resources, commercial data resources, social data resources and personal data resources, etc. From the viewpoint of property rights, data property rights include ownership, right to use, right to benefit, right to dispose, and right to collect. From the viewpoint of transaction rules, data needs a certain carrier as the medium of storage, thus it can be seen that as a special property right and tangible property transaction mode and transaction rules are since different. ^[3]Therefore, the clarification of data property rights and the establishment of data transaction rules have a strong theoretical basis, which can not only promote the perfection and development of data property theory, but also facilitate the further improvement of the relevant legal system in China on the basis of establishment.

2.2 Reality Base

On the one hand, the arrival of the era of big data makes information datafication and data property on the agenda, on the other hand, a series of new social problems such as network fraud and data monopoly are also in urgent need of legislative solutions. At present, China's legislation does not form a unified definition of data property, and the General Principles of Civil Law was formally implemented in 2016, which clarified the legal status of data and network virtual property and the object nature of data property rights in the law for the first time. In judicial practice, there is also no uniform standard for adjudication of disputes on data property rights, which is mainly based on the Civil Code, the Decision of the Standing Committee of the National People's Congress on Strengthening the Protection of Network Information, the Provisions on the Protection of Personal Information of Telecommunications and Internet Users, the Provisions on Several Issues Concerning the Application of Law in the Trial of Civil Disputes on the Use of Information Network against Personal Rights and Interests, etc. Moreover, the cognitive bias of different judges regarding data property rights may also lead to differences in the use of relevant laws.

At the same time, in reality, data trading, data collection, data analysis and data disposal are faced with the problems of doubtful subject qualification, unclear scope and unified quality standards. The relevant data supervision mechanism has not been fully established, which makes the legitimate rights and interests of the right holder not guaranteed.^[4] Therefore, the study of data property can provide some positive reference significance for judicial practice on the characterization, classification and infringement remedy of data property.

3. Justification of Data Property Rights

3.1 Data property meets the basic characteristics of property

3.1.1 Specificity

The specificity of data property refers to the fact that data property can be used repeatedly for the right subject through a certain medium. Since data is reproducible, it can be reproduced and disseminated for multiple subjects in different spaces at the same time, a feature that distinguishes data from property in the traditional legal sense.

3.1.2 Independence

Independence of the data property means that the data can be known to the outside world independently of the subject of the right itself. Data is an objective existence that is expressed by the subject of right and the outside world at the same time, and under the characteristic of independence, it can meet the production needs of the subject of right or the practical needs of daily practice. The significance of this feature is that an independent data property right is in one-to-one correspondence with an independent data property.

3.1.3 Tradability

The property value of data can meet the needs of production and life, and the value of data property needs to be reflected through trading and circulation in the market. This characteristic of data makes it possible to use technical means to segregate data property into separate property and a data trading system that is not authorized to be free from infringement within a specific scope.

3.1.4 Law characterization

Before the General Principles of the Civil Law, China's legal system protected data as trade secrets or personal privacy. After the introduction of the General Principles of Civil Law, the legal status of data was clarified for the first time, and the traditional scope of personality interests was expanded to include both personality rights and property rights. Inheriting the tradition of the General Principles of the Civil Law, Article 127 of the General Principles section "Civil Rights" specifies that data and network virtual property belong to other civil rights and interests and are regulated by special legal basis, and this article also indicates that data and network virtual property belong to the scope of civil rights.

3.2 The data right holder gives value to the use of the data

Based on the above characteristics of data property rights, some scholars believe that "the civil

property of data is the property of civil law that is self-presented by the data model as a medium".^[5] Nowadays, with the flourishing of data industry and digital economy, the property interest of data reflects its own property, which is reflected in the marketization of data and digitization of industry. As far as the digitization of industry is concerned, this result is obviously the result of the generation and progress of emerging technologies such as big data, artificial intelligence, cloud computing and blockchain. In terms of data marketization, it is firstly reflected in the circulation and trading of commercial data as data products in the market by Guiyang Big Data Exchange, Beijing Big Data Exchange, Xi'an Big Data Exchange, Shanghai Data Exchange, etc. At the same time, it is also reflected in the data industry caused by the rapid development of the scale and application of machine-generated data. Therefore, at the present stage, data gradually becomes an important intangible asset for enterprises to seize the market to gain competitive advantage and information resources of the country with important strategic status, and it is natural to recognize data as property rights for protection.^[6]

3.3 The construction of data property rights is operable

In terms of the subject of data property rights, the concept of "data controller" adopted in the General Data Protection Regulation of the European Union can be taken as a reference. In terms of the object of the right, the object of data property right mainly includes "publicly available information data stored and processed in electronic form, which can bring economic benefits to the subject of the right", and for the data not publicly available, if it meets the conditions of trade secrets, it can be protected according to the trade secret system, but this does not mean that it excludes The property right system protects the non-public data in the way. As far as the content of rights is concerned, the right subject has the right to possess, use, license others to use and transfer its lawfully collected and processed data, but the limit of use shall not violate the relevant laws and regulations of personal data protection and data security law.^[7]

4. Problems of China's current protection of data property rights

4.1 Problems at the legislative level

4.1.1 Legislative attitude is unclear

There are many different opinions on the characterization of data property in academic circles, so the current legislation is not clear on the determination of data property rights. In the consultation draft of the General Principles of the Civil Law, data was included as an object of intellectual property, and the first instance draft not only continued this provision, but also added network virtual property as an object together with data. However, in the consultation session, many scholars believed that data did not possess the innovative features required by intellectual property rights, and therefore held the view of denying it as an object of rights, believing that data only existed as a carrier of information, and that it was information, not data, that had protection value. After a heated discussion, the second draft amended the first draft by making a general provision in principle in Article 127 and deleting data information from the original article. This provision was inherited from the later Civil Code in its entirety. The change of the legislator's attitude has left a controversial blank provision for data property rights, which makes it more difficult to legislate and amend the law.

4.1.2 The current legal norms are not very operable

Although the Civil Code swears the data right as a civil right, it is obvious that this principle provision is too broad to meet the realistic needs of the rapid development of the digital economy at this stage which urgently needs specific legal regulation, therefore, this leads to the data subject's use, management and arrangement of digital property and the formation of data property relationship is difficult to get the legal level adjustment and remedy. For example, less than half of the articles in the "Network Security Law" have the nature of the logical structure of legal norms, and although Chapter 4 makes more detailed provisions for the network operator's obligation to use the reasonable collection, storage and use of user information,^[8] in fact, still regulates data protection within the scope of personal information protection, the general and vague provisions make the relevant data subjects lack specific The general and vague regulations make the relevant data subjects lack of specific and operable behavioral model guidelines.

4.2 Problems at the judicial level

4.2.1 Excessive discretionary power of judges

Since the current law does not provide for data property in a clear manner, the judiciary has no legal basis to be directly invoked in the process of hearing cases, which makes the discretion of judges too large and leads to the possibility that the legitimate rights and interests of right subjects are not effectively protected by justice. In addition, in judicial practice, there may be cases of competing rights involving data property rights, data protection, etc. Some judges regard civil law and criminal law as opposed to each other, and prefer criminal liability to civil liability and administrative liability if there are serious consequences for infringers, thus ignoring the application of comprehensive governance of multiple subjects. This practice is obviously contrary to the principle of modesty required by criminal law.

4.2.2 There are limitations to the application of the law

At present, China's judicial practice on data protection is mainly dominated by the anti-unfair competition law and the relevant norms of the Civil Code. The prerequisite for the application of the Civil Code's contract section to remedy rights is the existence of a legal and valid contractual relationship between the parties. However, the protection of data based on contract cannot bind third parties outside the contract. In the Huawei-Tencent case, for example, the dispute between the two parties focused on whether Huawei had the right to directly exceed Tencent's consent to collect user data.^[9] The tort liability section of the Civil Code does not provide for detailed types of data infringement, and disputes between enterprises usually choose to resolve through negotiation or to improve their own data regulation capabilities and technical levels. In addition, compared to companies providing platform services, users usually have to passively accept the format terms and conditions provided by them, otherwise they cannot access the services normally.

When it is difficult to protect data property by applying the relevant provisions of the contract, judges often apply the "general provisions" of the anti-unfair competition law for relief, such as "Taobao v. Fairview", "Gu Mi Technology and Yuan Guang The case of Taobao v. Vision, and the case of Guomi Technology and Yuanguang Technology Unfair Competition Dispute. It can be seen that the attitude of China's courts towards data disputes is to recognize the property interests of data subjects in the data they collect, acquire and process, but at the same time, they are very careful about the scope of the effects of the property interests in data. In addition, the application of the relevant provisions of the anti-unfair competition law will not only increase the difficulty of the parties to prove the infringement, but also require the conversion of the data order to the competition order, thus limiting the scope of application of data disputes.

5. Rethinking the data property rights protection system

5.1 Building a specific property rights regime for data

Data has the characteristics of a property interest but the complex interests involved make it different from ordinary property interests. Some scholars believe that, like trade secrets, data can also be similarly applied to the relevant norms of property rights.^[10] Professor Long Weiqiu proposed that the construction of a new property rights system for data is the urgent need for "supply-side reform".^[11] The new property right of data is to be treated as a new property right of data, and the content of data property right, the exercise of the right and the remedy are regulated in detail through the amendment or single legislation. It can not only protect the data property as a right, but also reflect the urgent need for data rights in reality. For the protection of data property, special single legislation will be applied as a priority, and when it is not applicable, general provisions such as the Civil Code and the Anti-Unfair Competition Law will be applied to protect it.

5.2 Strengthening administrative and law enforcement authorities to safeguard the data industry

Data is larger and broader than traditional IP objects, and its volume is growing at a rapid pace, and its content is changing rapidly, making it impossible and unnecessary for examiners to examine such a large volume of data item by item.^[12] Therefore, it is possible to refer to the registration system of patent examination and conduct a preliminary examination after the acceptance of the application, and make a general registration of the source and content of the application data and prior rights.^[13] In addition, in order to accept suggestions and supervision from all walks of life, government departments should

establish a corresponding policy evaluation mechanism. The evaluation agency should be relatively independent and highly professional, or a professional third-party organization can be commissioned to conduct the evaluation to provide support for the implementation of the policy.

5.3 Improve the remedy of data property by the judiciary

For judicial remedy, the core purpose is to restore the status quo ante and compensate the loss. At present, judicial practice mainly applies tort liability, breach of contract liability or contractual negligence liability in civil law to protect data property rights.^[14] At the present stage, the principle of "whoever claims, whoever proves" in the traditional civil litigation law is still followed for the proof of data protection disputes. The reversal of the burden of proof to the data right holder to prove the legality of its collection, processing and use of data will greatly reduce the difficulty of proof and improve judicial efficiency.

5.4 Guiding big data platforms to form a unified industry standard

The self-regulatory system within the industry can make up for the gaps and deficiencies in the legal system and increase the vitality and flexibility of the data industry; therefore, the data property rights system and industry norms can be combined to jointly maintain the order of the data market. A special data protection committee is established to resolve disputes, and the staffing, job responsibilities, postings, and division of responsibilities of the data protection committee are specified in detail to form a unified data transaction specification and data evaluation system to supervise and restrict data collection, acquisition, processing, analysis, and transaction to ensure data security and stability. Improving the enthusiasm of data property rights subjects to bring into play the internal autonomy of the industry is not only conducive to the formation of a win-win situation of benign competition and cooperation in the data market, but also conducive to the improvement of the responsibility system of data property interests.

6. Conclusions

Technological innovation affects the innovation and development of the legal system, and the legal system has to respond positively to technological innovation. The flourishing development of the data industry in the era of big data profoundly affects the change of the legal system. Although the research and protection of data property rights and interests in the theoretical and practical fields are still in the initial stage, the construction of data property, as one of the resources with great property value, is the trend of the time and the trend. The formation of data legal protection system is based on the formation of data property and data property system. Under the current legal framework of China, the protection of data is mainly realized according to civil law and anti-unfair competition law. However, as the status of data in life gradually climbs, it is foreseeable that data will present new unique characteristics in the future along with the progress and development of emerging fields such as big data, artificial intelligence, cloud computing and block chain. Therefore, it is imperative to confirm the attributes of data property and data property interests and their legal construction.

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