

Judicial Dilemmas, Positioning, and Construction Principles for the Protection of Corporate Data Property Rights

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The judicial protection of corporate data property rights faces challenges in defining the scope of corporate data, effectively distinguishing corporate data property interests from other interests, and addressing the multifaceted legal nature of corporate data. Justifying the allocation of corporate data property rights requires reasoning from Locke's labor theory of property, property economics, and legal positivism. Corporate data property rights differ from traditional property and intellectual property rights, yet do not need to be directly configured as a new type of property right. The system of corporate data property rights in China should be constructed based on the principles of protecting data subject rights, promoting data flow and sharing, and balancing interests.

Keywords: judicial dilemmas, new property rights, interest balance

Research Background

In December 2022, the “Opinions of the Central Committee of the Communist Party of China and the State Council on Building a Basic Data System to Better Play the Role of Data Elements” (hereinafter referred to as “Twenty Data Articles”) proposed that market entities have the right to legally and compliantly hold, use, and gain benefits from data collected and processed in production and business activities that do not involve personal information and public interest. While protecting the rights of data processors to control data autonomously, it is also necessary to ensure the rights of data sources to access or transfer data. Currently, there is a lack of systematic legislation specifically targeting data property in China. Local governments actively promote the formulation and implementation of data property norms. For example, the “Guangdong Province Digital Economy Promotion Regulations” include a special chapter on “Protection of Data Resource Development and Utilization”, and the “Shenzhen Special Economic Zone Data Regulations” and “Guangzhou Digital Economy Promotion Regulations” have explored data pricing and transaction standards. With the advancement of corporate data asset practices, there is a consensus in theory and practice on the need for data property protection. However, due to the vast

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quantity and diverse content of corporate data, along with the multifaceted legal nature and ambiguous ownership, academic research needs to further provide legal regulation to guide judicial practice. Thus, establishing a reasonable and effective data property system and rules based on the adjudication criteria of corporate data disputes has become an urgent task in the era of rapid digital economy and data industry development.

Judicial Dilemmas in Protecting Corporate Data Property Rights

In January 2024, the Shenzhen Intermediate People's Court and the Guangdong Higher People's Court concluded the case of Beijing Weimeng Chuangke Network Technology Co., Ltd. v. Guangzhou Jianyixun Information Technology Co., Ltd. and its Shenzhen branch for unfair competition. The Guangdong High Court supported the plaintiff Weimeng's appeal and ordered the defendants to compensate 20 million yuan in economic losses, marking a typical case of data competition disputes and the first in China involving illegal use of server API interfaces to obtain and sell data.

In recent years, cases of unauthorized access to data constituting unfair competition have been common in judicial practice. Using competition law as a remedy has become a compromise path under the absence of legislative confirmation of corporate data property rights. Scholars have debated whether data property rights can address the unfair distribution of data interests, advocating instead for regulation through anti-unfair competition (Kerber, 2016). Others argue that the frequent occurrence of data disputes does not justify the creation of data property rights. They suggest adopting a cautious approach, warning that creating such rights might negatively impact the data economy (Fu, 2022, p. 139). Nevertheless, judicial dilemmas persist in defining corporate data scope, distinguishing corporate data property interests from other interests, and addressing the multifaceted legal nature of corporate data.

Dilemmas in Defining Corporate Data Scope

Corporate data encompass a wide range of complexities. Most data are "by-products" collected during user activities or other enterprises' data operations. For instance, user-permitted non-sensitive data on platforms like Sina Weibo and Kuaishou are the first type of corporate data. User-generated data trace, such as browsing data, action trajectories, personalized recommendations, and preferences, form the second type. Data automatically collected by sensors, used in remote control applications, constitute the third type. The first and second types, containing vast amounts of personal information, are the main sources of corporate data. Courts primarily identify data as personal or corporate based on identifiable characteristics, as stipulated in Article 4 of China's Personal Information Protection Law, which clarifies that anonymized information lacks identifiability. However, disputes remain over the boundary between personal and non-personal information, especially when personal data characteristics persist despite anonymization. Furthermore, data like network behavior traces and personal preferences, evident in the second type, are clearly associated with personal information, thus potentially infringing on personal privacy when used for personalized services. Hence, the demarcation between personal and corporate data, and their respective rights, continues to be contentious.

Obstacles in Separating Corporate Data Property Interests From Other Interests

From a scholarly perspective recognizing data property rights, data should inherently be the object of such rights. However, data can also be protected under intellectual property, trade secrets, and network virtual property

(Gu, 2024, p. 93). Some scholars argue that the complexity of data and data behavior necessitates specific contextual (Ding, 2020, pp. 90-99) or interest-based regulation to effectively govern data actions (Dai, 2021, pp. 1562-1580).

In cases like *Taobao v. Meijing*, the legitimacy of Taobao's collection and use of network user information hinged on distinguishing corporate data from identifiable personal data. The court assessed the legality of Taobao's actions based on data quantity, nature, and identifiability, highlighting the intricate relationship between corporate data products and personal data.

Multifaceted Legal Nature of Corporate Data

The property value of corporate data forms within a framework of collection and circulation. Raw data, collected and stored, eventually transform into data products through analysis and integration, reflecting a gradual evolution from low to high value. In judicial practice, protecting the privacy of raw data is essential, although privacy protection norms are not always applied. The legal nature of corporate data has shifted from emphasizing privacy in personal information to recognizing the significant property attributes of data products. Identifiability has been diluted by algorithms, with data controllers' interests now focusing on overall data resource rights rather than individual privacy concerns.

Justification for Empowering Enterprise Data Property Rights

Enterprise data property rights are a typical form of private rights. Establishing an independent property right means granting the enterprise, as a market entity, absolute control rights. However, enterprise data property rights differ from traditional property rights and creditor's rights, incorporating a complex property structure that balances and coordinates other interests. Therefore, it is necessary to theoretically justify the legitimacy of empowering such rights.

Clarification of Enterprise Data Property Rights Through Locke's Labor Theory of Property

Locke's labor theory of property states that every person has a rightful claim to their own labor and the work of their hands (Locke, 1964). Initially applied to justify tangible property rights, Locke's labor theory has also been extensively used by scholars to justify intellectual property rights, a type of new intangible property rights. This theory's positive conditions align with the powers of property rights, and its negative conditions align with the exclusivity of property rights. This dichotomy has been widely regarded as a basis for justifying the property rights of enterprise data. Locke's theory affirms the logical connection between individual labor and external objects, emphasizing labor's role in increasing societal wealth.

In the context of enterprise data property rights, the labor of an enterprise mainly derives from activities such as data collection, storage, management, and processing. These data processing activities entail significant costs and social labor investment by the enterprise, thereby meeting Locke's labor paradigm (Li, 2022, pp. 91-100), and fulfilling the psychological expectation that effort should correspond to gain. Critics argue that while labor contribution can justify distribution of benefits, it alone cannot serve as the basis for property rights allocation (Ning, 2024, p. 91). This perspective supports the notion that productive contributions can generate new property, while non-productive contributions cannot, leading to the conclusion that labor or contribution alone cannot justify the acquisition of enterprise data property rights. They point out that data collection by

algorithms does not necessarily reflect the enterprise's intellectual labor. Hence, it is essential to re-examine whether Locke's labor theory can resolve the theoretical challenges of enterprise data property rights and how to define labor in data production.

When examining data production and digital labor in enterprises, it is crucial to differentiate productive labor. As the study focuses on enterprise data property rights, it does not address the allocation of personal data rights or the theoretical distinctions between personal and enterprise data property rights. From the perspective of digital labor, enterprises collect, aggregate, and process raw data, performing tasks such as cleaning, annotating, and integrating data to enhance its usability and value. Data programmers and algorithm engineers are the primary agents of digital labor, using tools like cloud computing and artificial intelligence. This labor transforms and processes data, aligning with Marx's definition of productive labor elements. Marx's assertion that "just as one's labor is the actual appropriation process of natural products, it also manifests as a legal certificate of ownership" (Marx & Engels, 1998) is applicable here.

From the perspective of data production, the conversion of collected raw information into data, the aggregation of data into datasets, and the production of new data products through analysis are all part of the value creation process. However, mere data storage and transmission that do not enhance data value are not considered data production. Data-producing enterprises invest in digital infrastructure like network facilities and equipment to record information digitally. Ensuring data production involves purchasing storage devices, firewalls, developing applications, and promotional activities, making the input of capital, land, labor, and technology essential. Such investments imbue data with economic value, providing various solutions for precise data analysis, thereby establishing the enterprise as the owner and usufructuary of the data.

Justification for Empowering Enterprise Data Property Rights From the Perspective of Law and Economics

The fundamental approach in law and economics is to design preemptive legal institutions guided by "efficiency", with property rights lacking clear boundaries. Traditionally, property rights are seen as a bundle of rights, where reconfiguration in institutional design means reorganizing these "bundles" into a sequence of various private use rights over resources. The concept of the "bundle of rights", initially proposed by American jurist Hohfeld, suggests that property rights consist of complex rights among people, thus breaking the previous notion of property rights as a relationship between a person and an object (Hohfeld, 2009). This perception has been generalized in common law systems as a composite of various legal relationships among subjects, where the rights holders reach the most efficient allocation agreement for the use of specific resources. Transactions aim to maximize societal wealth and adjust the priority of rights within the bundle among parties.

In the study of law and economics, the bundle of rights approach offers a new paradigm for constructing enterprise data rights, optimizing resource allocation in different contexts. Protecting enterprise data as a property right cannot overlook the complexity of the interested parties. Applying the bundle of rights theory to enterprise data property rights can mitigate the exclusivity traditionally associated with property rights. Enterprise data property rights involve multiple parties such as data sources and data producers, who can exercise their rights concurrently as long as the internal boundaries of rights are clear. It is challenging to identify a single party with absolute exclusive control. Furthermore, traditional property rights theories of possession, use, income, and

disposal do not comprehensively explain the separation of powers in enterprise data property rights. Therefore, the bundle of rights theory can provide a framework based on legal stipulations or parties' agreements. This theory encapsulates different stakeholders' rights in enterprise data, promoting data transactions and protection, yielding two key economic benefits. First, it facilitates data circulation, enabling enterprises to utilize data assets through use, transfer, and other value-added means. Previously, data circulation involved multiple negotiations between holders and potential users, resulting in inefficiencies and slow data value enhancement. Additionally, contract law remedies post facto could not effectively prevent third-party intrusions or unauthorized use beyond the contractual relationships. By affirming enterprise data property rights, existing contractual models can be maintained, or data can be traded through data exchanges, reducing operational costs and removing barriers to data development and application. Second, granting enterprise data property rights fosters dynamic benefits by encouraging creation and utilization. As a property right, enterprise data can generate economic returns through licensing agreements and authorized transfers, preventing data demanders from acquiring data sets through web scraping techniques. While some scholars argue that the current operational model already incentivizes data transactions without formal property rights, enterprise data property rights can enhance data value extraction and efficiency (Wang, 2019, p. 112).

Justification for Empowering Enterprise Data Property Rights From the Perspective of Legal Positivist Utilitarianism

Bentham's utilitarianism originated in Britain, with Hume developing the notion of utility as conducive to happiness and Beccaria defining good legislation as the art of maximizing happiness and minimizing suffering. According to the principle of utility, every individual's actions should conform to the principle of happiness, and nothing can ultimately motivate a person to act other than the pursuit of pleasure and avoidance of pain, achieving the greatest happiness for the greatest number. When analyzing legal issues from the perspective of ideal law and actual law, human nature's pursuit of benefit and avoidance of harm is the logical starting point. Individual ethics guide personal happiness, and government legislation aims to maximize societal happiness. Laws should incentivize laborers to ensure the maximization of societal benefits. The logic of empowering enterprise data property rights aligns with utilitarianism's ultimate goal of maximizing societal welfare. Enterprise data relate to public goods, and this connection is not abstract but promotes the production and supply of sufficient data products through incentives. Data do not originate in a vacuum; its collection, storage, cleaning, and transaction require enterprise investment and labor. The more complete the data structure, the higher the marginal cost of capturing surplus value for data enterprises. Empowering enterprise data property rights can curb excessive use of big data, eliminating free-riding behavior, incentivizing enterprise investment in the data industry, and enhancing societal welfare. While empowering reduces public domain space, it also necessitates certain limitations on enterprise data property rights. Drawing from intellectual property systems, measures such as time limits on legal protection, compulsory licensing in cases of public interest conflict, and fair use under statutory conditions should be considered.

Is Enterprise Data Property Right a New Type of Property Right?

Scope of Data in Enterprise Data

The "20 Data Articles" policy clarifies that enterprise data property rights should be limited by personal information protection laws and public interest considerations. This policy logic emphasizes that market entities

cannot freely dispose of data involving personal information and public interest. For example, during data collection, storage, and processing stages, such personal information should be anonymized, yet this does not exclude enterprises from having control and ownership over such data.

The issue of consistency between commercial data and enterprise data has sparked renewed scholarly debate following the amendment of the Anti-Unfair Competition Law. Article 18 of the draft amendment for public comments states that data collected lawfully by operators, possessing commercial value, and managed with appropriate technical measures, constitute commercial data. This draft introduces a “commercial data” clause for the first time, providing passive defensive protection for commercial data through a series of negative behaviors. It explicitly states that obtaining, using, or disclosing data identical to that freely available to the public does not constitute unfair acquisition or use of commercial data. Most unfair competition cases related to enterprise data revolve around data acquisition and use issues. The establishment of a specific data clause addresses the current regulatory gaps in departmental law, aligning with the legislative purpose of current Chinese data property policies. To maintain consistency in legal language, the normative expression of enterprise data should follow the legislative expression of commercial data.

Some scholars have pointed out that the protection of trade secrets cannot cover all types of enterprise data, as some data collections do not meet the three characteristics required for trade secrets: secrecy, value, and utility (Zhou, 2022, p. 171). Some enterprise data are publicly available, and enterprises, as information collectors, can obtain data entries through public channels. However, the data sets created by technical management measures differ from the public data entries, and whether these data sets meet the secrecy requirement of trade secrets is not widely known. The answer is evident: data sets, whether restricted by technical limitations or encrypted with IDs, do not completely exclude public access and acquisition channels. Even data operating enterprises can obtain resource utilization licenses by paying reasonable fees to the target audience, making the number of people who can access these data sets potentially large and indeterminate. Even if enterprises sign specific confidentiality agreements with data recipients, the transaction costs and monitoring costs are often unsustainable for the enterprises (Senga, 2009, pp. 2099-2117). Given the growing demand for public data authorization operations, there is a significant gap between enterprise data sets and the “not known to the public” criterion of trade secrets. Additionally, not all enterprise data possess commercial value. The value of enterprise data does not stem from the aggregation of raw data but from subsequent cleaning, analysis, and mining. The rights of data collectors focus on protecting their investments, while data products emphasize protecting the enterprise’s data labor. Thus, unanalyzed data within enterprise data, which lack creativity and have not involved data labor, do not possess value or utility. Therefore, not all enterprise data as the object of data property rights can be protected under trade secret laws. Some scholars argue that non-public enterprise data can be protected through trade secret protection mechanisms if enterprises adopt technical measures to protect them (Feng, 2022, p. 33). Although not publicly accessible, these data can maintain their secrecy and facilitate data transactions through licensing agreements with data demand parties.

Under different paths of data property rights confirmation, corporate data property rights exhibit two distinct confirmation paths: The first path is the mode of factor property rights protection. This approach delves into the relationship between data and traditional property rights and intellectual property systems, asserting that corporate data property rights are consistent with traditional property rights and intellectual property rights,

characterized by universality, dominion, and exclusivity (Zhang, 2023, p. 147). The second path, based on the characteristics of data such as fluidity, replicability, and technological dependency, posits that data property rights reflect the interactive relationship between entities regarding the value development of data. This path further divides into multiple approaches such as behavioral regulation and relational approaches (Xu, 2021, p. 86). Recognizing the proprietary interests in data and advocating for a dynamic property rights model distinct from the static property rights of traditional intellectual property and property rights, using the traditional bundle of rights theory, is currently a more prudent rights configuration under the “three rights separation” of corporate data property rights.

Treating corporate data as an element similar to property and intellectual property for protection lacks comprehensiveness and is difficult to substantiate. Firstly, the non-exclusivity, heterogeneity, and non-dissipative nature of corporate data distinguish it from traditional property and intellectual property. Analogizing corporate data property rights to property or intellectual property is difficult to justify. Secondly, this approach contradicts the principles of data openness and sharing in the digital economy. User possession of data hinders data integration, circulation, and production by data processing enterprises. Assigning corporate data property rights to users increases the costs of data flow and transactions. If enterprises were to obtain absolute data property rights, it could easily lead to data monopolies. The evolution of modern property rights from tangible to intangible assets, with the law protecting four types of personal rights and 13 types of property rights, has not included intellectual property as a new type of property right. Therefore, corporate data property rights do not need to be directly configured as a new type of property right.

Principles for Constructing Corporate Data Property Rights

Principle of Protecting Data Subject Rights

In the corporate data production chain, the value-added to data is a result of the contributions from different data subjects. At the forefront of corporate data property rights, it is essential to respect the privacy and personal information rights of users who provide the original data. Data users facilitate data circulation and transactions, driving the prosperity of the data industry, and thus their data usage rights need protection. Data consumers, as the end-users of data products, enjoy societal rights. Constructing corporate data property rights involves balancing and protecting the rights of various entities in the data value creation chain, which essentially defines the boundaries of corporate data rights.

Protecting the rights of original data subjects involves legally obtaining personal information and establishing clear rules for personal data processing. For instance, in a case involving a luxury international company in the U.S., the company faced a data privacy lawsuit due to its use of a virtual try-on feature on its website, which allegedly violated Illinois’ Biometric Information Privacy Act by collecting biometric data without proper consent. Similarly, the “Self-Assessment Guidelines for Mobile Internet Application (app) Collection and Use of Personal Information” set stricter processing rules, prohibiting automatic processing without explicit consent.

In the case of Guo Bing vs. Wildlife World, the process of fingerprint recognition for entry was clearly stated during the annual card registration process. However, the act of Guo Bing and his wife agreeing to be

photographed did not imply consent for facial recognition data collection, making the app's data collection beyond what was necessary and thus unjustified.

Principle of Realizing Data Economic Value

Establishing a corporate data property rights system is essential for unleashing the potential social utility of data elements and harnessing the core role of data as a production factor. Therefore, realizing the economic value of data is a crucial principle in constructing corporate data property rights. The utilization of data realizes its value, and by constructing a data property rights system, data-producing enterprises are incentivized to clarify the proprietary nature of data, understand the methods of data utilization, and fully explore the social resource attributes of data. Data not only possess property attributes but also social resource attributes. Through the circulation among different entities, data realize its corresponding social value, thereby promoting human development and social progress.

The construction of data property rights should also adapt to the development of the digital economy as a fundamental principle. As a new economic form, the digital economy relies on the effective utilization of data elements. Corporate data, as a driving force for economic growth, necessitates the commodification of data for value-added products and services. Therefore, in designing the data property rights system, the rights structure and institutional design must adhere to the development principles of the digital economy, with a focus on developing and exploiting the economic value of data.

Principle of Promoting Data Flow and Sharing

Data inherently possesses characteristics of replicability and non-consumability. Establishing data property rights to conduct data governance must prioritize the free and secure flow of data. Whether it is domestic data openness and sharing or international cross-border data flows, resolving data ownership issues is imperative. Orderly data flow relies on legal and regulatory compliance, with data circulation and transactions being the concentrated manifestations of such orderly flow. Data circulation is the basic form of orderly data flow, and within the rules of circulation and transaction, data property evaluation, and registration should be based on the construction of data property rights.

The "Twenty Data Articles" stipulate the need to "improve and standardize data flow rules, develop cross-border data flow and transactions in an orderly manner, and establish a trusted data circulation system." From the perspective of data openness and sharing, corporate data property rights demand that data enterprises have control and dominion over data to prevent its misuse by others. At the same time, the public has legitimate needs for related data interests, such as financial data, meteorological data, and traffic data in public data. Authorized operators of public data have property rights over such data, while the public has the right to access, obtain, and use this data.

Some viewpoints suggest that promoting data sharing and flow should be the cornerstone of the data protection legal system (Mei, 2021, pp. 1118-1207). Therefore, the establishment of a corporate data property rights system should fully consider the needs of individuals and the public for data sharing.

Principle of Balancing Interests

The legal construction of data property rights fundamentally involves coordinating the conflicting interests among personal information data, corporate data, and public data. The corporate data property rights system must

protect the cooperative rights of enterprises as data processors while also balancing individual interests and public social interests.

Firstly, there is the protection of personal data rights during the generation, collection, and usage stages by enterprises. The property rights of personal information data processed by enterprises are constrained by personal privacy and individual information rights. Due to the close connection between personal information rights, privacy rights, and personal dignity and freedom, these rights often take precedence over corporate data property rights. Therefore, protecting personal information rights within the framework of corporate data property rights is a primary issue to address.

Secondly, there is the issue of balancing the interests of different stakeholders involved in individual data and digital resources as a whole. This issue concerns whether user data on information network platforms, initially assigned to individuals or data enterprises, should belong to the individual or the enterprise. Some argue that individuals lack the capability to control data, and the value of isolated data is low. Assigning data property rights to individuals would be prohibitively costly, suggesting that individuals should not have independent data property rights (Yuan, 2020, pp. 106-108). The question of whether individuals can hold independent property rights over user data remains unresolved.

In the construction of corporate data property rights, a critical challenge is determining whether enterprises, which can control data sets on their platforms, should fully exclude users from having property rights over individual data. This dilemma of whether corporate and individual data property rights can coexist is a key issue that the corporate data property rights authorization system needs to address.

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