

Legal Positioning and Normative Path of "Data Intellectual Property" from the Perspective of Local Legislation

Wang Zijie

China Jiliang University, Hangzhou, China

Abstract: Since the State Council initiated pilot programs for data intellectual property rights, local governments have successively introduced regional registration regulations (rules or guidelines) to govern data IP management. However, in the absence of clear regulations from higher-level laws regarding the legal status of data rights, authorization requirements, and registration qualifications, local governments have rashly defined them as "data intellectual property rights" through documents and implemented registration protection, which poses a risk of violating higher-level legislation. Local data legislation should balance legislative authority with institutional innovation, ensuring both legal compliance with higher-level provisions and practical rationality to meet evolving data rights development needs.

Keywords: Data Intellectual Property Rights, Data Rights and Interests, Data Registration, Data Trading, Local Legislation

1. Introduction

With the explosive trend of data in daily life and production activities, it is particularly urgent to incorporate the regulation and protection of data into the legal framework. Therefore, as the core of the data basic system, "data intellectual property rights", how local laws and regulations can fully explore and practice within the authority of the higher-level laws is the key to the protection of "data intellectual property rights" under local legislation. The 17 pilot places for data intellectual property rights work designated by the State Council have creatively issued many regulations on data intellectual property rights management or data intellectual property rights registration and management, responding to the local requirements for data rights protection and regulation. However, the problem lies in that the Civil Code does not stipulate such a right as "data intellectual property rights". When combining Article 123 and Article 127 of the Civil Code, the legislator has clearly defined the scope of the objects of intellectual property rights. It is questionable to rashly classify the rights covered by data as intellectual property rights, and it lacks legitimacy to equate the registration of "data intellectual property rights" with the usual property rights registration.

2. Definition of data, data rights and data intellectual property rights

According to Article 3 of the Data Security Law, data refers to any electronic or other recorded information. Essentially, data represents the electronic or other forms of recording and summarization of information, serving as the unprocessed original expression of objective reality. In network systems, data manifests as binary code sequences^[1]. While data is entirely virtual and cannot exist without software^[2] or hardware carriers, some argue that although intangible, it physically exists. Data encompasses various legal rights: personal data contains natural persons' personality and privacy rights, corporate data involves property rights related to trade secrets, and public data carries public interests^[3] to some extent. Collectively termed data rights, these multifaceted interests constitute a comprehensive category requiring protection as a new type of civil right. The consequential provisions in Article 127 of the Civil Code underscore the significance of data rights, providing operational space for data legislation.

To implement the "Data Twenty Articles" principle of "de-emphasizing data ownership while emphasizing usage rights," local governments have innovatively explored the connotation and registration of data intellectual property rights, exemplified by the "Data Regulations" enacted in

Shanghai and Shenzhen. Scholars have defined data intellectual property rights through Hoffer's rights analysis theory: These rights encompass the legal^[4]entitlements, privileges, powers, and exemptions that right holders enjoy over algorithmically processed derivative data products derived from legally obtained data, which possess commercial value and intellectual attributes. Articles 123 and 127 of the Civil Code clearly distinguish between data objects and intellectual property objects, emphasizing that data rights are distinct from intellectual property rights. Moreover, the "Data Twenty Articles" are not legally binding but rather policy documents issued by the State Council. They cannot directly establish "data intellectual property rights" but can only indirectly influence subsequent legislation. Consequently, the "ownership confirmation" of data in these documents may lack legal validity due to insufficient legal standing.

2.1 A glimpse of local "data intellectual property" legislation

This article systematically analyzes legislative documents issued by local governments, including the 17 pilot programs for data intellectual property rights established by the central government. The analysis reveals three key observations. First, most regional policies were formulated by late 2023 or 2024, with implementation measures completed within the past year. This timing reflects two major factors: The National Intellectual Property Administration's announcement in late 2023 about nine new data IP pilot regions, coupled with the Ministry of Finance's "Guidelines on Strengthening Data Asset Management," prompted^[5]local governments to actively implement central policies to gain competitive advantages in the digital economy's emerging sectors. Second, the "Data Twenty Measures" policy has proven effective, sparking a trend of "de-emphasizing data ownership rights while prioritizing usage rights." However, as these measures provide only general guidelines, many regions still face challenges in fully protecting rights and implementing policies. Third, the geographical distribution shows that most data IP legislation originates from municipalities, the Yangtze River Delta, Pearl River Delta urban clusters, and other economically developed coastal areas. Regions without formal policies have adopted provisional measures, demonstrating how economic development drives data legislation and highlights the mutually reinforcing relationship between economic growth and legal frameworks. Third, regarding the entities responsible for drafting and issuing these documents, most are formulated by individual data bureaus or provincial market supervision administrations (intellectual property offices) that lead multi-departmental collaboration. This approach has the advantage of leveraging the intellectual property offices' professional expertise, which grants them both public authority and specialized insights into cutting-edge data legislation. Consequently, the nature of these legislative documents is determined not as laws but as local government regulations, making it challenging to fully demonstrate the public credibility and presumptive authority inherent in data registration. Local governments should protect and innovate data intellectual property rights while adhering to the principles of central legislation and the Legislation Law.

2.2 Data IP Application Status

The financialization of intellectual property has transformed traditional financing paradigms, enabling intangible assets to realize their value under institutional safeguards. Data from Zhejiang's integrated intellectual property platform "Shuzhitong" reveals that Zhejiang Kehui Medical Devices Co., Ltd. registered its "elbow joint prosthesis data" through external data collection in December 2023, obtaining certification and^[6]subsequent blockchain-based authentication on Zhejiang's IP blockchain platform. In July 2024, the company secured financing by pledging this "data intellectual property" as collateral. While establishing "data intellectual property" as collateral must be grounded in its conceptual validity, this practice has strengthened IP protection for biopharmaceutical firms. However, from a broader perspective, such maneuvers may still constitute circumvention of higher-level legal provisions.

3. Analysis of typical cases of local legislation under the protection of "data intellectual property"

During the exploratory phase before the implementation of the "Data Twenty Measures" policy, the data factor market faced multiple challenges including ambiguous rights definition, insufficient innovative applications, and difficulties in rights protection. To address these issues, Zhejiang Province took the lead by introducing a data registration service with public welfare objectives, aiming to promote the healthy development of the data factor market. Unlike legislative documents from other provinces and cities, the "Zhejiang Regulations on Optimizing the Business Environment" (hereinafter

referred to as the "Zhejiang Regulations") were enacted by the Zhejiang Provincial People's Congress. This indicates that the regulations were deliberated and approved by Zhejiang's highest legislative authority, granting them high legal authority and classifying them as local regulations. Moreover, the "Zhejiang Regulations" are foundational laws, differing from other specialized data regulations that focus on specific details, instead possessing common institutional characteristics.

3.1 Whether the National Intellectual Property Office has the right to authorize the legislation of the pilot areas remains to be considered

From the background of the "Zhejiang Regulations", Zhejiang Province was one of the "pioneering teams" in data intellectual property work, conducting pilot projects in institutional construction and registration practices. After achieving certain results, nine additional pilot regions including Hubei and Hunan^[7] were added. There is controversy over whether the National Intellectual Property Administration (NIPA) has the authority to authorize these eight pilot regions to legislate data intellectual property protection. Although NIPA is responsible for protecting intellectual property and promoting related system construction, specific legislative power typically belongs to legislative bodies. While NIPA can propose legislative suggestions or participate in the legislative process within its responsibilities, it lacks the authority to legislate or authorize legislation. Pilot regions conducting data intellectual property protection practices under NIPA's guidance and requirements, based on local conditions, do not imply that NIPA has the right to directly authorize these regions to legislate. Therefore, the author believes that while NIPA plays a crucial role in promoting and guiding data intellectual property protection, it does not have the authority to directly authorize pilot regions to legislate. Legislative activities in pilot regions must still follow national legislative procedures and regulations, with decisions made by corresponding legislative bodies.

3.2 The registration object is a data set

According to the officially promulgated^[8] "Zhejiang Regulations", the modification of the term "data set" is to bypass the conflict of legal hierarchy. Once the superior law clearly stipulates this right, local governments can immediately implement it in a bold way, which is quite like "all things are ready except the east wind".

The officially promulgated regulations have introduced the concept of "data intellectual property rights" compared to their draft version, with the subject matter evolving from "data" to "data sets". As fundamental information, data inherently lacks exclusivity by nature, and its value increases proportionally with dissemination and usage volume. The core of data intellectual property rights lies in the foundational information they carry. Through production, circulation, processing, and transformation, data becomes new data products—specifically data sets. Since the term "data" fails to adequately characterize the scale of registered objects, the term "data sets" proves more appropriate.

While the "Zhejiang Regulations" stipulate that "rights registration may be applied for through the provincial data intellectual property registration platform," the current Civil Code does not explicitly recognize "data intellectual property rights." Article 123(1-7) clearly defines intellectual property objects, with Article 123(8) serving as a catch-all provision for "other objects specified by law" – which would also qualify as intellectual property. However, no legal document currently establishes data ownership rights. Existing regulations can only classify data as works or patents. The "Data Twenty Articles" proposed establishing a "classification and tiered authorization system for public, corporate, and personal data rights." As this policy document issued by the State Council lacks legal standing, its provisions on data "ownership confirmation" are not legally binding. Some scholars argue that data fundamentally differs from physical objects and should instead be governed by behavioral regulation models rather than ownership confirmation.

Therefore, the legal expressions "data product" and "data collection" remain outside the framework of statutory regulations and require further clarification. As a local regulation in Zhejiang's legal hierarchy, the draft legislation sparked intense academic debates during its formulation. Scholars argued that even if the draft adopted concepts like "data intellectual property rights" and "data resource ownership rights," such provisions would be invalid due to the document's legal nature. The newly revised Zhejiang Regulations have softened this conflict with the Civil Code by replacing "property rights" with "rights and interests."

3.3 The registration certificate shall only serve as a preliminary evidentiary certificate

The issuance of preliminary certificates following data rights registration functions similarly to notarization procedures, creating a public disclosure effect. Furthermore, the relationship between data registration and rights confirmation must be clarified: For instance, while registration can serve as proof for automatically generated copyrights, this approach is not conducive to data registration. In fact, since data has already entered the public domain after registration in Zhejiang Province, the registration merely confirms ownership without providing substantive protection, which paradoxically undermines intellectual property safeguards. Some scholars, considering the protection of bona fide third parties, argue that the credibility of data intellectual property registration should be recognized. Even if the registration does not match actual rights, transaction validity should still be acknowledged to ensure transactional security.

The Zhejiang Intellectual Property Registration Platform aims to effectively address issues such as unclear data ownership, insufficient innovative utilization, and difficulties in proving rights protection by providing preliminary evidence of data collections held by market entities, along with initial certificates for data circulation, transaction, revenue distribution, and rights protection. Several innovative concepts have emerged: Firstly, the term "rights" here abstracts specific rights types and attributes through clever anonymization, functioning solely as a conceptual right. This aligns with Article 127 of the Civil Code: "Where laws provide for the protection of data and virtual property on the internet, such provisions shall apply." By converting data into data products through certificates, it enables lawful and reasonable possession and materialization of data, granting exclusivity and divisibility through algorithmic processing and blockchain technology. After intellectual property authorization, the protection scope is determined according to the rights description, establishing legal boundaries that prohibit unauthorized disclosure, use, or licensing without consent. However, unlike physical property, data intellectual property requires higher security measures, including notarized evidence storage before registration. According to the Zhejiang Data Intellectual Property Registration Measures (Trial), registered data must undergo notarized evidence storage or be authenticated using blockchain and other trusted technologies to enhance reliability and traceability. Secondly, after the public notice period, the platform issues electronic certificates of data intellectual property registration, referred to as the "initial certificate of rights protection" in Article 51 of the Zhejiang Regulations. This certificate serves as a preliminary proof of data ownership, facilitating data circulation, transaction, profit distribution, and rights protection. It encourages data processors to promptly register intellectual property rights. When using this preliminary certificate, it should only be used as evidence of ownership, and its legal validity should be carefully considered.

Before market entities apply for registration on the platform, the platform conducts formal reviews of the intellectual property data submitted and makes them publicly available. While this disclosure serves a similar publicity function to property registration, its legal nature differs significantly. Property registration is explicitly stipulated by law, possessing strong statutory authority that generates public credibility and registration effects only when legally prescribed. In contrast, data registration merely has a "formal name" without "substantive content," failing to produce the legal effects of property rights. Given the disparity in fairness between Zhejiang Province's registration "certificates" and Shenzhen's registration "certificates," achieving cross-regional mutual recognition of registration credentials remains challenging.

4. Difficulties in local "data intellectual property" legislation

As a pivotal element in economic activities, data plays a vital role in stimulating local economies and advancing the development of data market mechanisms. To accelerate progress in regional data legislation, it is crucial to address existing challenges. By conducting thorough analysis of intellectual property protection issues in local data governance, we can effectively reduce implementation costs during legislative exploration – this approach serves as the cornerstone for targeted solutions.

From a vertical perspective, local data legislation requires balancing legality and rationality. China's current legislative system still adopts the "central decision-making, local implementation" framework for central-local legislative authority, yet local legislation retains certain autonomy. First, Article 11 of China's Legislation Law establishes legal reservations from both horizontal and vertical dimensions: central authorities reserve jurisdiction over central administrative bodies and local authorities over basic systems like national sovereignty, criminal law, taxation, and civil law. Legislation on these matters by local governments would be illegal. However, the law lacks clear boundaries for civil law

systems. According to past broad interpretations, data attributes and rights fall under civil law systems. Therefore, local legislation involving data ownership violates Article 11's legal reservation provisions. Second, Article 116 of the Civil Code stipulates that property rights' types and contents are defined by law. Local legislation on data intellectual property contravenes the principle of statutory property rights. Third, some local governments may invoke Article 93 of the Legislation Law— "Where conditions are not yet ripe for formulating local regulations, local government rules may be established first due to urgent administrative needs" —as justification for expanded authority. Thus, the term "urgent administrative needs" should be interpreted restrictively to regulate arbitrary choices of legal forms in local data legislation.

From a horizontal perspective, local data legislation faces the paradox of homogenization versus differentiation. While driven by top-down directives to avoid overstepping higher-level legal boundaries, local legislators often lack innovation, resorting to copying provisions from other provincial-level regions. This results in repetitive frameworks, formulaic applications, and even direct replication of content. Such excessive uniformity ultimately leads to irrational expansion of local legislation. For instance, after Zhejiang Province implemented its "Zhejiang Data Regulation," Jiangsu Province subsequently issued the "Jiangsu Data Intellectual Property Registration Management Measures (Trial)," which contains nearly identical provisions regarding registration objects, content requirements, and blockchain technology applications. Both regions explicitly state that registration certificates serve as ownership proof for data, enabling circulation, transaction, revenue distribution, and rights protection. Adopting legislative content from other provinces becomes a shortcut to mitigate risks and evade accountability. Paradoxically, core concepts and key systems in data legislation remain inconsistent across regions. These differentiated regulations hinder cross-regional data flow, undermine market stability, and impede the development of data circulation, reuse, and the data factor market.

5. Conclusions

The era of data-driven development has arrived. As a new "petroleum" resource, our understanding of data remains just the tip of the iceberg, and merely issuing local regulations won't solve all problems overnight. Local data legislation must strictly adhere to higher-level laws, drawing from national legal frameworks while innovating within statutory boundaries. While legal lags are normal, the digital economy market has already provided clear answers. Effective data legislation requires not only proper allocation of data ownership rights but also improved external data circulation mechanisms. As data elements evolve rapidly and new regulatory models emerge, transforming abstract concepts of coordinated central-local data legislation into practical implementation will remain a long-term challenge.

References

- [1] Lin Huanmin, "The Private Legal Positioning and Institutional Design of Data Property Rights Registration", in *Law and Business Research*, No.5, 2024, p. 88.
- [2] Ji Hailong, "The Legal Positioning and Protection of Data", in *Law Studies*, No.6, 2018, p. 76.
- [3] Wang Liming, "The Civil Law Expression of Data Rights", *Jingchu Law Review*, No.1, 2024, p. 19.
- [4] Jia Liping, "The Formation and Development of Rules for Data Intellectual Property Rights", in *Legal System and Social Development*, No.3, 2024, p. 205.
- [5] Gu Wenqing, "Expression Methods and Paths of Data Rights in Local Legislation", in *Law Modernization Research*, No.5, 2024, p. 114.
- [6] Shen Qiusha. *Data Products Get Official Registration: First Pledged Financing Deal Launched* [N]. *Wen Hui Bao*, 2024-12-25 (001).
- [7] Tang Zhenyou: *The Institutional Logic and Improvement of Data Intellectual Property Registration*, in *Intellectual Property*, No.3, 2024, p. 42.
- [8] Ding Xiaodong, "Legal Reflections and Institutional Restructuring on Fair Data Utilization", in *Law Studies*, No.2, 2023, p. 21.