

Data Intellectual Property Protection and Registration Practice

By Xun Yang | Alice Zheng

In December 2022, the CPC Central Committee and the State Council put forward the "Opinions on Building a Basic Data System to Better Utilize the Role of Data Elements" (the "**Twenty Articles on Data**"), which establishes the general direction of data as an element of production. Under the guidance, the CNIPA has piloted data IP registration in some provinces and cities nationwide. Besides, the Beijing Intellectual Property Court recently concluded China's first data competition case involving Data IP registration Certificate, which confirmed the certificate's prima facie proof in judicial proceedings and provided important legal support for the steady advancement of data IP registration.

This paper discusses the relationship between data intellectual property and data IP registration ("**Data IP Registration**"), the effectiveness of registration and its application in practice.

I. Data Intellectual Property and Competitive Interests

Data are increasingly valuable in modern economies. While it may be protected as intellectual property, it is more often seen as a competitive interest.

1. Data protection as an intellectual property

Data is not borne to be protected by intellectual property, but there is a natural fit to protect data by means similar to intellectual property.

.....
如果您需要本出版物的中文本,
请联系:

Publication@llinkslaw.com

.....
For more Llinks publications,
please contact:

Publication@llinkslaw.com

First, **data is intangible**. The underlying objects of intellectual property protection, such as patents, trademarks and copyrights, are intangible intellectual achievements. Data, as an intangible asset, also bear this characteristic. The intellectual property legal system has developed a set of matured mechanisms to define, protect and manage intangible assets, and these mechanisms can be extended to apply to data. For example, copyright law protects the expression form of a work, but not the idea itself, similarly, data protection can focus on the particular expression or presentation of the data, rather than on the facts or ideas that the data represent.

Second, **data can be shared and are not naturally exclusive**. While intellectual property gives right holders certain exclusive rights, it is not absolute. Right holders can share their intellectual property with others through licenses, transfers and other means. Data can also be shared with others through licenses, data-sharing agreements and as such. The licensing and transfer rules under the intellectual property law system provide a legal framework for data sharing, ensure that right holders' interests are protected in the sharing process, and also promote the effective use and circulation of data resources.

Third, **the protection of data is a legal fiction**. Intellectual property is a right created by law, meaning it is an artificially created right by the law to encourage innovation and creativity. The protection of data shall similarly grant certain rights to data creators through legal fiction to incentivize investment and innovation in data. This is not based on the data's natural properties itself, but on the promotion of the society's whole interests. This legal fiction allows the law to flexibly adapt to the protection needs of new types of assets, and to balance the interests of rights holders and the public by setting a reasonable scope of rights and duration of protection.

If data meets the requirements of copyright law, it can be protected as intellectual property. For example, in the "Impact Factor" database copyright infringement case¹, the JCR Journal Citation Report Database, due to its personal selection of the most academically valuable journals to be included in the report after research and analysis, reflects the producer's intellectual creativity and meets the requirement of originality, so it can be protected as an adaptation. In the recent case of Miao v. Market Supervision Administration of Hangzhou Yuhang District, People's Government of Hangzhou Yuhang District, a software company Administrative Penalty and Reconsideration² case, the data products of "Business Counselor" met the requirements of trade secrets due to their secrecy, confidentiality measures and commercial value, and were protected as trade secrets. The case was also the first judicial case in China in which data products were protected as trade secrets.

However, not all data can be protected based on existing intellectual property laws.

For one thing, **data may not be creative**. Intellectual property laws, in particular copyright and patent laws, usually require a certain degree of creativity in the object. For example, copyright law protects

¹ (2020) Shanghai 73 Civil Final No. 531 Civil Judgment.

² An administrative litigation case involving the protection of commercial secrets of data products is decided in the first instance. https://mp.weixin.qq.com/s/V_yysKVatmZdfUUfw4Da6w.

literary, artistic and scientific works of originality, while patent law protects novel and creative technical solutions or designs. However, many data are merely direct reflections or records of real-world conditions that do not contain creative labor or unique expression. For example, simple data sets or statistics that have not been subjected to any form of processing or creative treatment are unlikely to meet the protection standards under copyright law or patent law.

Secondly, **data are not necessarily confidential**. Trade secrets are a form of intellectual property, such as technical information and business information, which are not known to the public and have commercial value and for which the rights holder have adopted the corresponding confidentiality measures. However, there is a large amount of data that is publicly available or well known in the related industry, they do not satisfy the "confidential" requirement of a commercial secret. Moreover, even if certain data are initially confidential, once they become public or widely disseminated, they lose their protection as trade secrets. Thus, trade secrets-related law, mainly Law of the PRC Against Unfair Competition, does not provide protection for data that is publicly available or easily accessible.

2. Data protection as competitive interests

In judicial practice, there are situations where data may be considered as competitive interests and protected under Law of the PRC Against Unfair Competition. Data protected as competitive interests should meet the following two conditions:

First, **certain investment**. The collection, processing, analysis and maintenance of data often require enterprises to invest substantial time, money and human resources. When an enterprise puts substantial effort and cost into acquiring data, the data can be considered an investment by the enterprise and should therefore be protected by law. Such investment may include market research, user behavior analysis, data cleansing and validation, etc.

Second, **competitive value**. Data must have actual or potential business value that can bring economic benefits or competitive advantages to the enterprise. The added value may be in the form of improved operational efficiency, optimized products and services, enhanced market forecasting capabilities, increased customer satisfaction, etc. If the data can directly or indirectly generate revenue or save costs for the enterprise, then they have a value worth protecting.

If the data is in the public domain, or the selection of the data is not original, it can be protected as a competitive interest on the basis that it has certain substantive inputs and brings commercial value. For example, in Taobao v. Meijing case, the first case of unfair competition dispute over big data products in China³, the data derived from Taobao's intellectual inputs are independent data with no direct correspondence to user information or original data, which can bring economic benefits and belong to Taobao's property competitive interest. Additionally, in the recent case of Hidden Wood v.

³ (2018) Zhe 01 Civil Final 7312Civil Judgement.

Data Tang Unfair Competition Dispute⁴ , Data Tang legally collected and formed sound data entries with real quality by investing a lot of technology, capital, labor and other substantial inputs in the data set, which added more commercial value to the original data. The data in question is subject to a competitive interest because of the added commercial benefits that it can attract traffic flows, trade opportunities and competitive advantages.

The fact that data is protected as an "interest" and not as a "right" also means that the protection is limited and not absolute. That is to say, other competitors or third parties' reasonable use of data is permitted in certain circumstances, such as data obtained through open channels, use of public records, or data mining and analysis without infringing the legitimate interests of the data owner.

II. Data IP registration and its procedures

With the growing importance of data protection, data IP registration system has come into shape.

1. Origin and practice of data registration systems

The data IP registration system was created to address the lack of publicity for data rights.

In 2021, the "the Outline for Building an Intellectual Property Power (2021-2035)" and the "Notice of the State Council on Promulgation of the National Intellectual Property Protection and Use Plan during the 14th Five-Year Plan Period " were issued, which explicitly proposed to "improve the intellectual property protection system for new fields and new business formats such as big data, artificial intelligence and gene technology. ", providing policy guidance for data intellectual property protection. In 2022, the "Twenty Articles on Data" were released, proposing to "study the new methods for data property rights registration", emphasizing the fundamental role of the registration system in the definition and circulation of elemental property rights.

Subsequently, in order to further promote the implementation of the data IP registration system, CNIPA successively identified a number of places as pilot places for data intellectual property work, including Beijing and Shanghai, which were identified as the first batch of pilot places in 2022, and then more places were added to the pilot places in 2023 and 2024, such as Shanxi Province, which was identified as the second batch of pilot places.

Till now, data IP registration has become common practice.

First, as for **geographical coverage**, as of the end of July 2024, a total of 14 pilot provinces and cities and one non-pilot province have introduced data IP registration methods and established registration centers, namely Beijing, Jiangsu, Zhejiang, Guangdong, Shenzhen, Fujian, Shandong, Tianjin, Anhui, Shaanxi, Henan, Hubei, Hebei, Shanxi and Hainan.

⁴ (2024) Beijing 73 Civil Final No. 546 Civil Judgment.

Second, **as for quantity of registrations**, as of July 2024, the pilot localities have issued more than 8,700 registration certificates of data intellectual property and received more than 13,000 applications for data IP registration.⁵

Third, as for **the types of registered data**, the scope of registered data covers various scenarios such as manufacturing and production, sales and consumption, and is particularly focused on transportation/spatial data, scientific research data, and data based on publicly available government information.

2. Conditions for data IP registration

From the aspect of local data registration practice, the data of which the intellectual property right is to be registered must be a collection of data which are obtained in legitimate manner.

First, **registered data must be obtained in a legitimate manner**. The registration organization will review the legitimacy of the source of the data according to the different ways of obtaining the data, such as enterprise self-acquisition data, personal data or public data, which is the most basic requirement for data registration.

Second, **registered data are generally collections of data**. There are differences in the criteria used by provinces and cities to judge the object of registration, including data collections, data, social data products and services, data resources and data products. For example, Beijing requires that the object of registration be a collection of data, and Shenzhen requires that it be data resources and data products. In general, the object of data IP registration should be the data itself, as the description of a property right 's object generally focuses on the nature of the thing rather than its resource attributes or economic significance, in order to define the object of protection. At the same time, data intellectual property protects collections of data rather than individual pieces of data, to be characterized by "scale".

Third, **registered data are generally processed or obtained by investing substantive and creative labor**. Beijing, Tianjin, Shandong, Jiangsu and Guangdong all require data to be processed by certain rules. For public data, the registration authority will examine whether the enterprise uses processing tools, algorithms, models, etc. to process the data, and if personal information is involved, desensitization processing such as anonymization and de-identification must be carried out, whereas for enterprise data, even if the degree of processing is relatively primitive, it can be considered to meet the requirement of "processed by certain rules". In general, the applicant has to contribute labor in data processing to produce a certain amount of derived data that is separate from the original data.

Fourth, **registered data should have commercial or practical value**. Currently, it is relatively difficult for registration authorities to review the data's commercial value, but it is feasible to judge the utility,

⁵ Historic Achievements in the Cause of Intellectual Property in China in the New Era, <https://mp.weixin.qq.com/s/tRI0e5aNvE15hdTVIVbdOQ>.

as long as the data set has real or potential application value as judged by the application scenario.

Fifth, **some registry centers require that registered data be not known to the public**. Currently, Beijing, Tianjin and Shandong require data to be non-public, while Jiangsu, Guangdong, Shenzhen and Zhejiang do not. There is no clear explanation of the criteria for "not known to the public".

3. Procedures for data IP registration

The data IP registration procedures in various provinces and municipalities can be wholly summarized as follows: data deposit notarization → registration on the data IP registration platform → examination by the registration authority → pre-registration publicity (opposition) → issuance of the registration certificate.

In the process of registering data intellectual property, registration authorities in many regions typically focus on formal review, while certain regions implement a substantive review. For example, registration authorities in Beijing, Tianjin, Zhejiang and Guangdong conduct mainly formal reviews. Shandong Province has adopted a more in-depth review mechanism, namely "initial review by the registration platform and ultimate review by the Intellectual Property Protection Center", which provides for an in-depth substantive review of the lawful origin of the data, the attributes of the intellectual property and its utility, although more detailed provisions have not yet been introduced. Shenzhen's approach is more unique in that it requires a third-party institution (a non-government organization) to conduct a preliminary substantive review, followed by a formal review by the registration authority. Overall, most provincial and municipal registration departments require a formal review, which means that the registration authority is only responsible for the completeness of the application materials and is not substantively responsible for the legality and accuracy of the content. Therefore, a registration certificate issued on this basis is naturally not enforceable. In the event of a registration error, the applicant may request the registration authority to correct.

In addition to Shenzhen's requirement for a preliminary substantive review by a third-party organization in the registration process, the Shanghai Data Exchange Center requires a self-inspection report at the data product registration stage and a compliance assessment report as well as a quality assessment report issued by a third-party law firm at the data product listing stage. This indicates that enterprises should prepare the examination reports from third-party organizations such as law firms before registering and trading in data intellectual property, so that the data can successfully pass the review and the transaction security are safeguarded.

III. Effectiveness of data IP registration and data assets capitalization

The data IP registration is not the ultimate goal, but rather an important cornerstone for safeguarding the data's legal and compliant circulation, trading and commercial utilization, which provides legal safeguards and right proofs for the data assets capitalization and market-oriented operation, promoting the data's innovative development and value realization.

1. Legal significance of data IP registration.

Data IP registration has certain legal significance.

First, **data IP registration is the preliminary proof of ownership**. Data IP registration is an official activity to record and publicize data-related right, which is currently carried out at provincial intellectual property administrations; it requires both a legal declaration by data right holders and the law firm's confirmation of data tenure in the form of legal opinions. Once the data has been formally registered, the registration certificate serves as preliminary proof that the data right holder has the ownership. In legal litigations or transactions, such proof helps the right holder to prove its ownership or control over the data, thus providing legal protection. The data IP registration, as proof of ownership, facilitates the trading and circulation of data in transactions; In dispute proceedings, rights holders may rely on the registration certificate as preliminary proof of their ownership to file a litigation.

Second, **data IP registration is a prima facie proof of the legitimacy of the data source**. Data IP registration is an official certification of the legitimacy of the data source. It encompasses the fact that the data were acquired through legal channels and that the right holder complies with the relevant legal requirements for privacy protection, data security and intellectual property. In the data IP registration process, the data right holder declares that its data was collected, processed and owned through lawful means and are required to provide detailed information on the data source, the method of collection, and the process of processing, which increases the data transparency; Furthermore, the registration authority also requires the data right holder to submit a legal opinion to prove the legitimacy of the data source, i.e., through the professional opinion of an attorney, to argue the legitimacy of the data source.

Third, **data IP registration does not mean that registered data can be freely transferred and freely used**. Despite the fact that data have been registered, the law still imposes strict restrictions on the circulation of certain sensitive data. This includes data relating to national security, personal privacy, Trade secrets and data protected by specific laws. In these cases, data transfer may require a license from the appropriate regulatory authority or must comply with specific legal requirements. In addition, data use is not unrestricted too; even if the data is registered, its application is still subject to relevant laws and regulations. For example, the utilization of certain personal data may be limited to a specific purpose and scope. Meanwhile, the use of data collected indirectly may also be subject to contract terms, such as the use scope, duration or the number of users, as set out in a license agreement. Thus, data IP registration is not the same as the free data transfer and use, and rights holders must always respect and comply with legal norms when using data.

Fourth, **data IP registration does not necessarily conclude data exclusive rights**. Data IP registration is a formal recognition of rights in data by the law, but it does not imply the granting

of unlimited exclusive rights to right holders. In the data generation and application process, multiple stakeholders are usually involved, including individuals (with respect to their personal information), information collectors and analyzers. Individuals typically have privacy rights and control over their personal information; Collectors may have ownership rights or can use the data they collect; And analysts may also have intellectual property over the analysis. The above rights may coexist at different levels and are not exclusively owned by a single entity.

In addition, for non-confidential data, under the framework of the Law of the PRC Against Unfair Competition, data right holders may have an interest in preventing others from obtaining or using their data through illegal acts. However, this protection does not mean that the right holder is able to absolutely prohibit others from using the data, especially when these uses are based on legitimate acts and purposes. Thus, data IP registration recognizes the legitimate interests of the right holders, but that interest must still be exercised in a manner that respects others' rights to use the data legitimately, to the extent permitted by law.

2. Application of data IP registration and data assets capitalization

Intellectual property registration of data is not an end, but a way to realize the value of data. From the view of current practice, the main application scenarios after intellectual property registration of data are as follows.

First, **data transactions**. Data IP registration provides a legal basis and proof of ownership for data transactions. In the transaction process, buyers and sellers can rely on registration certificates to confirm the lawful origin and attribution of rights to data, thereby reducing transaction risks. As a preliminary proof of data rights, registration certificates help build trust between the transacting parties and promote the legal circulation and commercial utilization of data. For example, in December 2023, Jiangsu Zhongwu Big Data Development Group Co., Ltd. registered the data intellectual property product of "visual analysis data of administrative penalties of enterprises in Suqian in the past year" and successfully realized the transaction, with a transaction amount of RMB 80,000.⁶

Second, **data financing**. Enterprises may apply to financial institutions for loans or lines of credit by using registered data intellectual property as pledges. By examining the registration certificate, the financial institution assesses the value of the data and the enterprise's ability to repay the loan, and thus decides on the terms of financing. Data IP registration makes data assetization possible and provides enterprises with new financing channels. For example, Rothwell Automotive Electronics Co., Ltd. registered "T-BOX Telematics Information Data" (DJ20230727000213) in July 2023, and then used the above data intellectual property as a pledge and obtained RMB 10 million to Bank of Suzhou Yangzhou Branch for financing.⁷

⁶ Suqian's first order! Data product successfully traded, <http://www.sqsc.gov.cn/scq/bmdt/202312/640838d71a874422adc243b16094d7b0.shtml>.

⁷ The first data intellectual property pledge financing business in Yangzhou landed, http://jsip.jiangsu.gov.cn/art/2023/8/31/art_75876_10999941.html.

Third, **data securitization**. Data securitization refers to the process of transforming data intellectual property into securities products. In this process, the registration certificate serves as a proof of rights, which helps to assess the value of data assets and serves as the basis for securitization. For example, on July 5, 2023, the first issue of Hangzhou Hi-Tech Gold Investment Holding Group Co. Ltd. 2023 Hangzhou Hi-Tech Zone (Binjiang) Data Intellectual Property Directed Asset-Backed Notes was successfully book-entered in the Association of Dealers of the Chinese Interbank Market, with an issue amount of 102 million yuan, a coupon interest rate of 2.80%, and an issue term of 358 days. Among the 145 intellectual property pledges, two are data intellectual property.⁸

Fourth, **data insurance**. Data IP registration provides a basis for risk assessment and compensation for data insurance. Insurance companies can assess the value and potential risk of data assets and design corresponding insurance products based on the registration certificate. In the event of data leakage, damage or other insurance accidents as agreed in the insurance contract, the insurance company can compensate according to the registration certificate and the insurance contract. For example, Shenzhen U-Qian Information Technology Co., Ltd. registered the "ESG Enterprise Evaluation Report Data" (2024000132) in May 2024 and completed the signing of the data asset loss insurance policy with GuoRen People's Insurance Company in June. The policy provides data asset loss expense coverage of RMB 1 million aggregate indemnity limit for ESG data of U-Qian Information, which mainly covers the cost of data asset loss or replacement and restoration.⁹

Fifth, **data assets capitalization**. Data assets capitalization refers to the incorporation of data assets into the balance sheet of an enterprise, to be managed and accounted for as intangible assets. The data IP registration certificate provides a basis for the value assessment and ownership confirmation of data assets, which helps enterprises to include data assets legally in financial statements and improves the transparency and credibility of enterprise assets. For example, based on the water supply data of Yuangu Water Industry, a subsidiary of Jiangbei Public Utilities Group under the Nanjing Yang Zi State-owned Investment Group, after more than 10 rounds of seminars and on-site research, strictly standardized the completion of the identification of data assets, registration and confirmation of ownership, compliance assessment, analysis of economic benefits, cost attribution and apportionment, etc., and included the 3,000 households of desensitized data of water consumption of the enterprises in accordance with the book-accounting attribution of the R&D inputs in January 2024 in the "Intangible Assets - Data Assets" account to realize the data assets capitalization.¹⁰

3. Application of data IP registration in judicial practice

Data IP registration serves as a prima facie proof of property interest and legal origin.

⁸ The amount of issuance is RMB 102 million! China's first securitization product containing data intellectual property successfully landed, <https://mp.weixin.qq.com/s/68MKPuyCfcFrTVVhWuWQ>.

⁹ The first data asset loss insurance in China landed in Shenzhen Luohu: Policy empowerment to promote the high-quality development of the financial industry, <https://mp.weixin.qq.com/s/0ua49cl8d9vAUc-rlaIMBg>.

¹⁰ First order! Data into "Assets", <https://mp.weixin.qq.com/s/UDfrAfqH7DipjVFX4O31Gg>.

In the case of Hidden Wood v. Data Tang Unfair Competition Dispute, the courts of both instances ruled that the Data IP registration Certificate held by the plaintiff Data Tang was prima facie evidence of the property interest and lawful origin of its dataset. Although the dataset in question did not constitute a commercial secret due to its public status and was not regarded as a work due to its lack of originality, Data Tang's substantial input and lawful collection of it gave it a competitive interest that should be protected by the Law of the PRC Against Unfair Competition. The court finally ruled that the defendant, Hidden Wood, should compensate the plaintiff, Data Tang, for the economic loss and reasonable expenses of defending its rights.

The above decision shows that data IP registration is recognized in judicial practice:

First, **effectiveness of proof of ownership**. The courts of both instances recognized that the data IP registration certificate could be used as prima facie evidence to prove that the data processor had relevant rights and interests in its dataset. The Court of First Instance held that the certificate proved Data Tang's trade secret over the dataset in question, while the Court of Second Instance held that the certificate proved Data Tang's relevant property interest in the dataset. Despite the differences in the understanding of the nature of the rights between the two courts, they both agreed on the effectiveness of the certificate of data IP registration rights in proving ownership.

Second, **proof of dynamic data**. The effectiveness of registration of intellectual property rights in data is not limited to the static data being registered, but is also probative of evolving dynamic data. The court further recognized that the validity of data IP registration rights is not limited to static data, but also applies to dynamically evolving data sets. In this case, despite the fact that the dataset in question was 200 hours of static data, the court recognized that the characterization of data collections through data IP registrations, including those large data collections that may change over time, has significant elemental value in the digital economy.

Third, **judicial determination of the nature of right or interest**. Data IP registration data does not directly confer specific intellectual property attributes on the data, but rather confirms the legitimacy of the ownership and source of the data, and the nature and scope of the specific rights are judicially determined in accordance with the specific circumstances of the case. In this case, the court of first instance found that the data met the requirements as a commercial secret, while the court of second instance held that although the data set was no longer secret due to its public disclosure, the commercial interests enjoyed by Data Tang could still be protected through Law of the PRC Against Unfair Competition. It demonstrates that the court, when dealing with data intellectual property cases, will consider the data IP registration certificate and the specific circumstances of the case, to comprehensively utilize a variety of legal means, including trade secret protection and Law of the PRC Against Unfair Competition to protect data.

If you would like to know more information about the subjects covered in this publication, please contact:



Xun Yang

+86 21 3135 8799

xun.yang@llinkslaw.com

SHANGHAI

19F, ONE LUJIAZUI
68 Yin Cheng Road Middle
Shanghai 200120 P.R.China
T: +86 21 3135 8666
F: +86 21 3135 8600

BEIJING

30F, Central Tower, China Overseas
Plaza, 8 Guanghuadongli,
Chaoyang District
Beijing 100020 P.R.China
T: +86 10 5081 3888
F: +86 10 5081 3866

SHENZHEN

18F, China Resources Tower
2666 Keyuan South Road,
Nanshan District
Shenzhen 518063 P.R.China
T: +86 755 3391 7666
F: +86 755 3391 7668

HONG KONG

Room 3201, 32/F, Alexandra House
18 Chater Road
Central, Hong Kong
T: +852 2592 1978
F: +852 2868 0883

LONDON

1/F, 3 More London Riverside
London SE1 2RE
United Kingdom
T: +44 (0)20 3283 4337
D: +44 (0)20 3283 4323



www.llinkslaw.com



Wechat: LlinksLaw

WE LINK LOCAL LEGAL INTELLIGENCE WITH THE WORLD

This publication represents only the opinions of the authors and should not in any way be considered as legal opinions or advice given by Llinks. We expressly disclaim any liability for the consequences of action or non-action based on this publication. All rights reserved.

© Llinks Law Offices 2024