

# Legal Problems of Data Ownership in Big Data Transaction in the Internet Era

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**Abstract:** In the Internet age, the data is rapidly expanding and growing, and the data determines the user's future development. When people are having access to information, there are more and more cases where the improper use of personal information leads to the infringement of personal rights. The user has put forward new requirement to protect the user's rights and interests in the legislative and legal safeguard measures. In this article, through a questionnaire survey of 263 senior internet users and 30 internet enterprise employees, the author understands the ownership of the data. At the end of the article, the author puts forward some suggestions to strengthen the protection of data ownership.

**Keywords:** Big Data; Ownership; Legal

## 1. Introduction

Since 2012, the term "big data" has been increasingly mentioned. "Big data" is not only the size of the index itself, but also the tools, platforms and data analysis systems that collect data. The core value of "big data" lies in its storage and analysis of massive data. Compared with other technologies, the comprehensive cost of "cheap, rapid and optimized" in big data is the best. Big data is national strategy, the state makes relevant laws and regulations on the trading rules, data security, data application, data sharing, individual protection, external data exchange and data control of big data. In recent years, hot issues such as data asset management, big data realization and data governance have been emerging. At the same time, in the process of data collection, application and trading, the society also has a voice on how to ensure that the privacy of individuals is protected, the business secrets of enterprises are not violated, and the information security of the country is

raised. Therefore, the country urgently needs to solve the legal problems of ownership in data transactions [1-3].

## 2. Big Data Brings Convenience and Hidden Trouble to Internet Users

The age of big data presents a new challenge to human data control ability, offers unprecedented space and potential for people to gain more profound and comprehensive insight. The data is rapidly expanding and growing. It determines the future development of the user. While companies are not aware of the potential pitfalls of data explosion, more and more users will be aware of the importance of data over time. Consumer spending has more options, and more convenience [4]. All of this is based on the premise that network security issues can be effectively guaranteed. Otherwise, the diversification of consumption pattern will bring great risk loss to us. Our personal information has been made transparent. Sometimes, cyber security risks are not like the security risks in our cities. The technology of the Internet has caused some cyber security hidden dangers to wear a hidden layer of clothing. While we enjoy the convenience of information, personal information will be used, resulting in violation of personal rights.

## 3. Data Ownership Issues Involved in Big Data Transactions

In the Internet era, big data holds great potential and energy. Due to the production, acquisition, excavation and integration of massive data, companies have demonstrated tremendous commercial value, and reconstructed business thinking and business models in many industries. Data ownership is the primary condition and foundation for people to engage in information activities. On the one hand, the rights of citizens' personal information are closely related to the

realization of the basic human rights of citizens. On the other hand, the rights of information of the state and other organizations are directly related to the realization of specific goals and the development of the national economy and national security. The state should strengthen the legal protection of information rights by stipulating the legal obligations and legal responsibilities of the relevant entities. The objects of protection include information production rights, information acquisition rights, information occupancy rights, information usage rights, information income rights, and information processing rights. The objects of protection also include different types of information rights such as the right to information of natural persons, the right to information of organizations, and the right to information of countries. There is still a blind spot in the current law on the ownership of big data, such as how can we assess the value of data, how can we protect data security, how modern enterprises should use big data innovation to transform, how can modern enterprises break the data monopoly, how individuals can benefit from big data and how to protect individual privacy, how to implement fast and effective data transactions, and how to leverage the role of data exchanges, etc.

#### 4. Research on Data Ownership

##### 4.1 The Questionnaire Design

In order to make the measurement project

reasonable, practical and scientific, the author needs to conduct empirical research. Questionnaire survey is one of the most important methods to obtain empirical data [5]. After reviewing and revising the existing questionnaire, the author obtains the questionnaire of this paper. The questionnaire in this article was expressed using the 5-point scale recommended by Likert [5]. The 5-point scale is very disagreement, disagreement, general, agreement and very agreement. We are scoring the points, and the larger the number, the more we agree on the description of the item. The measured content is divided into 3 parts. Part 1 is the data property properties. Part 2 is the ownership of data. Part 3 is the right to use data. We can first make appropriate adjustments and modifications to existing questionnaires considering actual conditions. And then, we can use the repeated reading and analysis by industry experts to delete ambiguous, invalid or multi-concept items in the questionnaire, and determine the final questionnaire. The length is limited, the detailed questionnaire is omitted [5].

##### 4.2 Data Collection and Analysis

The questionnaire was conducted among 263 senior Internet users and 30 internet business staff, a total of 293 questionnaires were issued and 247 questionnaires were collected. The effective questionnaires were 224 and the recovery rate was 84.7%. Data were statistically processed using SPSS19.0 and AMOS21.0 (as **Table 1**).

**Table 1. Research Data Statistics [5]**

Basic Information	Category	Number of People	Percentage
Age	Under the age of 25	32	17.39%
	25 to 30 years old	46	25%
	36 to 50 years old	84	45.65%
	51 to 55 years old	15	8.15%
	Above 56 years old	7	3.80%
Education level	Junior high school and below	18	9.78%
	High school	31	16.85%
	Specialist	73	39.67%
	Undergraduate	45	24.46%
	Bachelor degree and above	17	9.24%
Years of online shopping	Within 1 year	19	9.78%
	1 year to 2 years	115	16.5%
	2 years to 3 years	26	14.13%
	3 years to 4 years	20	20.87%
	More than 4 years	4	40.17%

From the basic information statistics of the

respondents, we can see that the sample

selection of this questionnaire survey is reasonable. The distribution of respondents in terms of age, education level, and years of online shopping are more in line with the actual situation of online shopping crowd, which can not only satisfy the requirement of the survey sampling, but also prevent the bias of the results of the sample distribution due to concentration, so that this study has more universal practical significance.

### 4.3 Confirmatory Factor Analysis

In order to verify the factor structure of the scale used, we use AMOS21.0 to analyze the confirmatory factor and obtain the fitting degree of each scale. Generally speaking, it is reasonable to evaluate the value of  $\chi^2/df$  between 1 and 3. The range of GFI, NNFI and CFI is between 0 and 1, the critical value is 0.9 and the threshold is closer to 1, the better the effect. The RMSEA and SRMR change intervals are also between 0 and 1, the criticality criterion is 0.05 and the criticality criterion is closer to 0, the better the effect [5].

### 4.4 Analysis of Survey Results

According to the survey results of senior netizens, we can conclude that netizens believe that data has property properties, and they emphasize the priority property rights that individuals have over data, the state should restrict the data utilization and trading behavior of Internet enterprises. The right to use the data can be transferred with the consent of the parties. They believe that the commercialization of data generated by data transactions will bring great harm to personal privacy and produce unpredictable information security issues.

Internet company employees represent the position of the Internet industry. Through investigations, we conclude that Internet companies can obtain benefits through the transfer and processing of data, which shows that the data has wealth attributes. They believe that data ownership and use rights should be attributed to the data collectors and a small amount of data cannot produce value. Only when the amount of data reaches a certain scale can it produce some value. In the process of data collection, Internet companies have various inputs such as human and financial resources. The wealth value of data should be attributed to investors as a return on

investment.

These two views have different values. The former takes the user as the priority item, by using the property rights of individual data, the Internet can indirectly restrict enterprise data trading activities. The latter is from an industry standpoint, the Internet wants companies to be able to clear the absolute ownership of data to loosen the data processing activity of the enterprise, thus minimizing the intervention from the outside world.

## 5. Strengthen Data Ownership Protection Recommendations

### 5.1 Improve the Data Exchange Market

The data exchange market continues to be established, some are government-led and some are government-led, but there is no unified data market. Each data trading market is separate, there is no uniform trading rules, transaction standards, transaction definitions, perfect data registration, information disclosure system and rules on international data exchange. It can be said that the current market of data trading is still only in the stage of dealmaking and the state of confusion, which has not played its role. The future data trading market should be a unified trading platform under the domination of the state and establish a national qualification data assessment agency. Some functions may be performed by industry associations, and the state should also regulate the data exchange between industry associations.

### 5.2 Regulate Enterprise Data Transactions

Companies are the biggest beneficiaries of the big data era, and the biggest losers from big data. Those who have more data can master the future. Artificial intelligence after big data is also the benchmark for companies to lead the future. However, enterprises are profit-oriented, interests are double-edged sword, enterprises need legal and institutional constraints. The state should prevent excessive abuse of power by enterprises in the collection, application and sharing of data, should prevent enterprises from using the blank of law and system to violate the privacy and security of individuals or countries. Law should put national security and individual privacy in a very high position, should link national security and individual privacy with enterprise credit, so that the law

and market can determine the survival of enterprises in the era of big data, so as to force enterprises to attach importance to data security.

### 5.3 Improve the Relevant Legal Mechanisms for Data Ownership Protection

Although our country's laws control the violation of information rights, such as the National Security Law of the People's Republic of China, the Secrets Act of the People's Republic of China, the Criminal Law of the People's Republic of China, the Patent Law of the People's Republic of China, the Law of the People's Republic of China Trademark Law, the Law of the People's Republic of China Copyright Law, the Law of the People's Republic of China on Computer Security Protection Ordinance, etc, in the face of the rapid progress of the Internet, the protection and protection measures of the Internet need to be further improved. There are two suggestions. The state should speed up the process of formulating relevant laws on Internet information security, and further increase the illegal costs of stealing, leaking and selling Internet users' information. The state should stipulate punishments for all kinds of information crimes arising under the new situation and improve the relevant provisions of administrative law. For example, in the Law of Public Security Administration, the state should impose administrative penalties on the illegal ACTS of online information that do not constitute a crime, and act as a deterrent to those who violate the law to prevent and reduce the occurrence of such illegal ACTS.

### 6. Conclusion

The Internet age has come, it is a worthwhile topic to ensure that people can enjoy the convenience of big data and protect Internet users' personal information security and data interests to realize win-win situation. Only by continuously perfecting relevant laws and regulations on the protection of Internet information security to form a meticulous information rights protection system, can the Internet be able to build a green cyberspace for the protection of citizens' personal information security and the creation of a network security environment.

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