

Research on Legal Protection of Personal Information in the Age of Big Data

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Abstract: In the short period of more than 20 years of popularization of computer Internet technology, information processing technology has developed rapidly. In the face of big data, personal information security is facing unprecedented shocks and threats. However, the legal protection of personal information in our country is far from enough. By comparing the models of the United States, Germany and Japan, the legislative protection of the right of personal information in China should pay more attention to harmonizing its relationship with the right to privacy. While incorporating it into personality right law, it should be unified through personal information protection law to form a Chinese path for the protection of personal information right.

1. Introduction

In the short period of more than 20 years of popularization of computer Internet technology, information processing technology has developed rapidly. In recent years, from web2.0 to new media to big data, it has become more and more convenient, efficient and rapid for information collection, storage, processing and dissemination. At present, big data has changed from a data processing model to a synonym with the characteristics of the times.

The so-called big data refers to a new type of data mining and application mode that is accompanied by the new data collection, transmission and processing modes such as the Internet of Things and cloud computing. The characteristics of big data can be summarized as 4V, namely, Volume, Variety, Velocity, and Value. In the face of big data, personal information security is facing unprecedented shocks and threats.

2. The Challenge of Big Data Protection for Personal Information

2.1 The Technical Characteristics of Big Data Increase the Risk of Personal Information Disclosure

Hacking is the most common source of data breach risk. Big data storage is larger and more valuable than traditional storage methods, and is more vulnerable to hackers and viruses. The "concurrent parallel" big data database system architecture makes it difficult to accurately identify all data nodes and complete data access client authentication. Big data has no distinction between internal and external databases, which decides that it cannot hide users' private data and that the data is completely open, which greatly saves the time and capital cost of hacking attacks. The APT (Advanced Persistent Threat) attack that has emerged in recent years has been targeted, targeted, and attacked, which seriously affects the security of big data. The diversity of big data makes the target of hackers increase. The high collection of information inevitably increases the risk of leakage of useful information and increases the probability of successful hacker attacks. At the same time, this feature makes the probability of hiding Trojans and viruses in massive big data greatly increased, resulting in information security risks.

2.2 Improper Collection and Use of Personal Information Poses a Security Risk

On the one hand, the phenomenon of excessive collection of personal information and secondary development and utilization is more common. In the information society, the electronic management of personal information permeates all aspects of daily life such as clothing, food, shelter, and entertainment. Online shopping, Internet finance and other services will require users to

provide some real registration information, such as ID number, mobile phone number, address, etc. Some APP applications will often read the user's mobile phone address book, call history, SMS content, position location and other information. Free WiFi in public places can also steal personal information without the user's knowledge. In the process of conducting business and providing services, some organizations collect a large amount of information unrelated to their business. Some websites expand the scope of information collection by allowing users to "bind" other accounts. E-commerce monitors the user's search and transaction records by monitoring the user's computer's cookie data to speculate on the shopping needs of these potential customers and accurately push marketing advertisements. On the other hand, malicious use and illegal trading of personal information has intensified and even formed a gray industrial chain. Some agencies and their staff, in violation of professional ethics and confidentiality obligations, sell large amounts of personal information for profit or disclosure to others for illegal gains.

2.3 Serious Consequences by Disclosure of Personal Information

Personal information is closely related to the vital interests of the subject of personal information, and the disclosure of personal information may have serious consequences. Spam messages, junk mail, marketing phone harassment and WeChat friends circle "killing" phenomenon are endless and annoying; online fraud, telecommunications fraud refurbishment, endless, endangering the property security of personal information subjects. What's more, fixed-point tracking, kidnapping, robbery, and rape seriously endanger the life safety of personal information subjects. Therefore, the subject of personal information in the era of big data lacks security.

3. The Status Quo and Dilemma of Legal Protection of Personal Information in China

In China, there are many laws and regulations concerning the protection of personal information. However, with the rapid development of big data technology, it has been unable to meet the needs of personal information protection. At the end of the 20th century, developed countries have issued relatively complete laws and regulations for the protection of personal information on the Internet. It was not until 2012 that the National People's Congress Standing Committee formulated the "Decision on Strengthening Network Information Protection." In 2013, the Ministry of Industry and Information Technology formulated the "Regulations on the Protection of Personal Information of Telecommunications and Internet Users." In general, China's provisions on the protection of personal information are scattered in laws, administrative regulations, departmental rules or regulatory documents, showing the characteristics of scattered legal provisions, low legal levels, and lack of systematic legal provisions. As a very important personality right in civil rights, the 111th article of the General Civil law protects the right of personal information as a basic civil right, establishes the legal principle of personal information protection, and is the basis of formulating a single law or refining protection measures in the future, but the provision is still more Abstract. There is no definition of the scope of protection of personal information, but also the lack of effective relief measures and supporting provisions.

3.1 The unclear Scope of Protection of Personal Information

Personal information is always updated dynamically, and the carrier is changing with each passing day. It is difficult to define the scope of personal information to keep up with the speed of its content expansion. In the existing research results of personal information protection, scholars define the scope of personal information with various standards, but they can not achieve accurate extended. In addition, there is no clear definition of personal information in the current legislation of our country, and it is impossible to delineate the scope of protection of personal information, which inevitably leads to the absence of practical legal basis for judicial practice at this stage. It is precisely because of this lack, so that citizens' personal information after being violated, can not get the protection of the law, nor through legal means to remedy their rights.

3.2 Lack of Legal Characterization of Personal Information Right

Article 111 of the General Principles of Civil Law stipulates the right of personal information as an independent civil right, but it does not clarify the connotation and extension of the right of personal information, which will lead to confusion between the concept of the right of personal information and the right of privacy, and then lead to confusion of the system of personality rights, which is not conducive to ensuring the rigorousness and systematicness of legislation. Therefore, it is not only necessary to give independent legal status to the right of personal information, but also to clearly define the rights and obligations of citizens and information controllers, and to distinguish it from the right to privacy, which is an urgent task in the legislative work of protecting the right of personal information.

3.3 Lack of Effective Relief Measures

For the infringement of citizens' right of personal information, no specific relief measures have been stipulated, and it is difficult to seek the corresponding legal relief to safeguard their rights and interests after the citizen's right of personal information has been infringed. There is no right without relief, and the law of lack of effective relief measures can only be reduced to a dead letter. Information controllers in the data age, through various hidden channels, collect and utilize the personal information fragments of cyberspace, and the technical methods and control of information collected are in the hands of information controllers, which are very detrimental to citizens who are already in a vulnerable position, and if there are no practical relief measures, the right of personal information can only be dead.

3.4 Industry Self-discipline Organization Chaos and its Norm Immaturity

Because the regulatory body that does not specify the protection of personal information in our country's law, it does not make an accurate division on the Management authority of the related work, which results in the dilemma of overlapping of authority or unsupervised. The protection of personal information cannot be supported by administrative power; The lack of government-directed Internet industry associations, communication industry associations, coupled with information asymmetry and status inequality, self-regulatory norms are mostly agreed by the internet giants, can not effectively protect the interests of the vast number of small and medium-sized Internet enterprises; And most self-discipline norms are based on affidavits, advocacy provisions, lack of specific implementation rules and relief channels. If the existing state agencies are authorized or specialized agencies are set up to guide and supervise the self-regulatory organizations, the industry self-discipline mechanism will be greatly improved.

4. The Status of Foreign Legislation on the Protection of Personal Information

With the development of society and Science and Technology, the upsurge of large-scale personal information protection law arose in European and American countries in the the 1970s. The world's first law, named after the Data Protection Act, is the German Hesse Data Protection Act of 1970, although it is only a state-level legislation. Sweden adopted the Information Act in 1973; Austria passed the Federal Data Protection Act in 1978; In 1977, the federal Government of Germany promulgated the Federal Data Protection Act, which regulates the protection of personal information at the federal level. Since then, Germany has amended the Act to form the Federal Data Protection Act 1990 and the Federal Data Protection Act of 2001. Since the standards for the protection of personal information by EU member states are not uniform, the European Union issued the Data Protection Directive in 1995, providing a comprehensive protection for personal information protection. The Data Protection directive, which entered into force in 1998 and has mandatory effect on Member States, requires Member States to amend their data protection laws to implement their provisions relating to the protection of personal data. On January 25, 2012, the European Union introduced the European Data Protection Regulation. The United States enacted the Privacy Act in 1974, and in 1986 it promulgated the Electronic Communications Privacy Act. In

May 2014, the Obama administration released the 2014 “Big Data” white paper, reiterating the “U.S. Privacy Act and the International Privacy Law Framework” to express “the implications of big data for privacy law”.

At present, more than 60 countries in the world have formulated a special personal information protection law. From the legislative model point of view, there are 3 main types: The first is the American model, which combines decentralized legislation with industry self-discipline and establishes separate laws in the public domain for classification protection, such as the Children's Online Privacy Protection Act of 1998; Adopt an industry self-regulatory model in the private sector, develop industry guidelines under the leadership of the government, and protect citizens' personal privacy through self-restraint. The second is the German model, which protects personal data in the public and private spheres by adopting a unified legislative model, such as the Uniform Federal Data Protection Act, the State Data Protection Act, which applies to the protection of personal information in all States, and the establishment of an independent supervisory body. The third is the Japanese model, the adoption of a comprehensive protection model, with a unified regulatory system and industry self-discipline characteristics. For example, in 2005, Japan's Personal Information security protection law, as the Basic Law on the safety of personal information, provides unified protection for the public and private fields, and formulates a law for different departments and special industries, and forms a legal system supplemented by the Law on the protection of personal information for the Basic Law and the separate laws of various departments.

The above 3 modes have different emphases, but they all have their rationality and limitations. The American model is relatively flexible, and it can promote the circulation of information while protecting personal privacy. The regulations are specific and operational, but it is easy to cause judicial inconsistency. The German model is normative and compulsory, which is conducive to the comprehensive protection of personal information security, but it is inevitably rigid, which is not conducive to the full flow of personal information and affects the development of enterprises and society. The Japanese model is a compromise between the former two, which is broad and applicable. However, the definition of the protected object and the regulated object is not rigorous, and on the contrary, it affects the normal exchange of information.

In the legislation of personal information protection in our country, we should analyze the gains and losses of 3 kinds of legislative models comprehensively and dialectically, draw on each other's strengths and disadvantages.

5. Suggestions on the Protection of Personal Information Legislation

The content of the right to personal information is very rich, it contains a large number of technical provisions, which can not be incorporated into the personality law, but need to be supplemented by the form of *lex specialis* outside the law of personality. At the same time, the infringement of the right to personal information may involve multiple responsibilities. If these responsibilities are fully covered in civil liability and are regulated in the Personal Rights Law, it may cause system inconsistency. Therefore, comprehensive legislation on personal information is conducive to the full protection of personal information rights. In the final analysis, in order to comprehensively protect personal information, safeguard personal interests, and safeguard public safety, it is necessary for China to formulate a special personal information protection law.

In the specific legislative provisions, we should make an accurate definition of the connotation and extension of the right of personal information in the form of civil Basic Law, and confirm the general personality right status of the right of personal information; We should draw on the practice of the Taiwan Region of China to formulate a single law such as the Personal Information Protection law, and introduce special laws on the protection of personal information in the fields of finance, telecommunications and other industries according to the characteristics of the industry in different fields, or add provisions for the protection of personal information in existing separate laws for the purposes of judicial practice, such as the Measures for the protection of personal information of non-bank financial institutions; In addition, in view of the lack of civil remedies to protect personal information in many cases, it is also necessary to adopt the protection of

administrative legislation, establish the industry self-discipline mechanism under the guidance of the Government, and improve the relevant supporting system.

5.1 Establish Personal Information Rights, Clarify Rights and Obligations

The right of personal information is the same concept as the "right to self-determination of personal information" abroad, and its essence is the control of personal information. The general provisions of civil law in China have explicitly protected the right to personal information as an independent right. While establishing the right of personal information as an independent right, the part of the Civil Code should be drafted to clarify the content of the citizen's right to personal information and the obligations of the information controller. The right to personal information enjoyed by citizens shall include the following rights: the right to decide, citizens have the right to decide whether personal information is collected and how it is used; the right to know, in the process of information collection or after collection, citizens have the right to understand and verify how personal information is used; the right to correct, according to the changes in the real situation, citizens can modify or delete personal information. The information controller shall fulfill the following specific obligations: the obligation to solicit the license, and the information controller shall obtain the consent of the subject of the personal information right when collecting, using and transferring the personal information of the citizen; the obligation to inform, the information controller should clearly inform the individual citizen of the purpose, scope and manner of collecting and using personal information, and the corresponding legal consequences; assistance obligation, when the citizen issues a notice to inquire, modify or delete personal information, the information controller shall promptly assist the citizen to defend his legitimate rights after receiving the notice; the security guarantee obligation, the information controller should take reasonable technical measures to prevent the loss, damage, disclosure or theft of information.

5.2 Encourage Self-management of Personal Information

To establish a good order for the collection and use of personal information, the key is to mobilize everyone's enthusiasm for active protection of their personal information, that is, the rights holder can actively claim rights after being violated. To establish a good order for the collection and use of personal information, the key is to mobilize everyone's enthusiasm for active protection of their personal information, that is, the rights holder can actively claim rights after being violated.

5.3 Clarify the Responsibility of the Information Collector

While collecting and utilizing personal information data, relevant entities should presuppose the protection of the parties' rights to control and privacy of personal information. The collectors and users of information should be responsible for protecting personal information and privacy. The collection and use of information data should be based on the protection of personal information rights and privacy rights. The data collection and development activities that ignore personal information rights and privacy protection are like a bomb, which will pose a great threat to the protection of individual rights.

Through the various contents of the personal information right, the corresponding obligations are set for the collectors and controllers of the information. Defining the right to personal information as a civil right, stating that personal information is an interest protected by law, requires not only the respect of other civil subjects, but also the respect of the state public authority. In other words, all social subjects, including the public authorities, have an obligation to respect personal information. Moreover, not only the rights subject itself can use legal measures to protect the interest, but the public authority should also take active measures to guarantee the realization of this right.

5.4 Further Strengthen Civil Liability

Since the right to personal information is a private right, in the case of infringement of rights, the right holder should be protected first through the way of civil liability. Although personal information may also involve social public interest and public safety, it is mainly a private benefit. At present, the criminal law has made clear provisions on the offence of illegal sale of personal

information, and the decision on the protection of Network information also has corresponding provisions on the administrative liability for infringement of personal information, but the current law does not provide for civil liability for infringement of personal information. In particular, in view of the fact that infringement of personal information has the characteristics of large-scale minor damage, the right to personal information should be protected through the system of small claims and public interest litigation established by the Civil Procedure Law.

5.5 Establish industry self-discipline mechanism and improve supporting regulatory measures

According to the current situation of the establishment of Internet regulatory bodies in China, the author suggests that a special Internet personal information management agency should be set up on the platform of the National Internet Information Management Office and the local communication administrations at all levels to supervise the implementation of the Law on the Protection of Personal Information, to receive public complaints and suggestions, and to give timely feedback on the handling of the situation. Carry out law enforcement investigation and research related to the protection of personal information to provide a reliable basis for the legislature.

We say that focusing on private rights protection does not mean that government management can be ignored. On the contrary, since personal information actually involves the public interest, the government's management of personal information is necessary. Therefore, it is necessary to improve the supporting system of the industry self-discipline mechanism under the guidance of the government. The industry associations should become third-party supervision agencies and establish an effective evaluation mechanism. For example, evaluate and certify whether Member enterprise regulations and user agreements can effectively protect users' personal information in accordance with the law, and issue the certification mark for the qualified enterprise of personal information protection; Publicize the list of certified companies, rate the trustworthiness of industry companies and regularly publish rating results; Encourage technological innovation in personal information protection and give appropriate incentives to those who achieve results. Industry associations and member companies should also establish a personal information protection grievance mechanism, set up a grievance agency and stipulate grievance handling procedures.

In a word, the legislative protection of personal information right in China should draw lessons from the experience of comparative law, pay more attention to coordinating the relationship between personal information right and privacy right. While incorporating it into personality right law, it should be unified through personal information protection law to form a Chinese path for the protection of personal information right.

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