

Network Information Security and Protection Measures in the Age of Big Data

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Abstract: The huge potential value and wide application of large data make it imperative to protect large data. Big data has brought about a new revolution in the way of social life, production and even human thinking. While providing us with the convenience of accurate analysis, it also deconstructs and subverts some existing concepts and systems to a certain extent. While big data changes people's life and production, it also exposes the problem of information security. Under the operation of big data technology, the ability to collect and utilize information has achieved a qualitative breakthrough. Our personal information is in danger of being illegally collected, illegally exploited and disclosed in a special network environment. Ensuring the security of data information is of more significance to the network information security issues and security development issues in many fields of big data.

1. Introduction

With the rapid development of global information technology, network information security has become an important issue related to national security and social stability [1]. Science and technology often promote the legal system, especially in the network age and information age, technology updates are too frequent. As a result, the stability of law is more and more manifested in the lag of the legal system in the face of new technical problems [2]. The emergence of large data is closely related to the network. With the development of network and related technology, it is possible to collect large amounts of data and analyze them carefully and reliably. Today's social data and information are becoming more and more important, information technology is developing rapidly, and computer networks are widely used in people's production and life [3]. Everything has two sides. Big data brings convenience to people's lives, and it also poses a threat to computer network information security. The current world is a digital world that can fully sense, preserve and share all kinds of data resources.

The object of operation of big data is all kinds of data in information activities, which is different from traditional information technology in collecting, storing, processing and using data [4]. By using the relevance of data, people can make decisions directly without considering the reasons behind them, and big data has brought huge subversion to the world [5]. The security of personal information has attracted more and more attention from domestic people and scholars. These personal information leaks that have been frequent around us have refreshed our bottom line again and again [6]. In the management model of government agencies, the use of big data gradually laid a good foundation for development. Only a more practical and reasonable network information security control mechanism can ensure the safe transmission of massive data and the storage security of huge databases. In the era of big data, it is very important to effectively strengthen the awareness of computer network information security protection.

2. Materials and Methods

The flow of information in the 21st century is mainly based on the network as the carrier, electronic information as the medium, and large computer as the terminal for information acquisition, exchange and sharing. As the basic carrier of computer system operation and network connection, data has undergone fundamental changes in scope and nature. Fragmented time and faster and faster pace of life make it very difficult for people to read a piece of news information for a long time, especially in depth reports and survey reports [7]. The vulnerabilities of computer system itself can be

effectively prevented and controlled, but the system vulnerabilities generated in the process of downloading and installing software by users often bring about greater destructiveness. Cybercrime caused by big data occurs frequently. Data may be lost or stolen for various reasons in the process of transmission through the network, which brings incalculable losses to relevant personnel or organizations.

The technology of helping big data has created a large number of commercial enterprises, and this environment is the era of big data. Facilitated data collection and a large amount of information are mastered by others. The most prominent problem is the protection of personal information. The virtual Internet world makes data networking, and ultimately promotes the birth of big data, which can trigger the data revolution. According to content, personal information can be divided into personal information and personal information. The personal information of the person reflects the natural attributes of the subject of the personal information. From a technical perspective, the entire technical process can be considered as a complete whole of big data to information generation. We are in the era of big data, and the competition between countries around the Internet's key resources and international rules of cyberspace will become more intense. A sound information security regulatory mechanism should play the combined role of individuals, organizations and the state. Thereby forming a hierarchical system of supervision, so as to better achieve network information security.

3. Result Analysis and Discussion

The most direct way for big data operators to infringe on personal information is to collect personal information illegally. Personal information of the subordinates reflects the social attributes of the subject of personal information and the social relations he is in. It reflects the relationship attributes between people formed and developed by the subject of personal information in social practice. It is the most common phenomenon to encounter fraud and virus attack when making hacking on a web page. Fraudulent information is often disguised as a healthy and safe web page to gain the trust of netizens. The era of big data is formed under the premise of the rapid development of computer network information technology, and plays an unparalleled role in various fields. The society has increased its emphasis on information security. However, compared with developed countries, there are still problems such as inadequate education environment and unimproved educational concepts. If two identical, deterministic processes start from the same state, then the two processes will generate the same output and end up in the same state.

The data is cleaned by analyzing the data of the abnormal node and the extracted parameters, and then the data is generalized to determine the possibility that the data detected by the spot check appears under the model. Figure 1 shows the structure of network information security supervision under the era of big data.



Fig. 1 Big data reshapes the structure of Internet financial supervision

Although the governance of network information security has been upgraded to the level of national strategy and is constantly updated with the development of network information technology, the technical basis and means of network information security still need to be improved. In the era of big data, the key to personal information security lies in the development of science and technology,

especially the protection of personal information in the era of big data [8]. In the context of the era of big data, it is very difficult to ensure that information is not tampered with, stolen, lost or destroyed during transmission. The main body of data source has a large number of Internet users. Under the background of big data era, in order to effectively control the information security of computer network, we need to fully understand the loopholes of the system itself. If the user's personal information is illegally collected without the user's permission, it will result in infringement on the rights of the data subject. The potential threats should be identified and analyzed comprehensively, and then advanced technology should be adopted to ensure the security of computer network information.

4. Conclusions

In the era of big data, the ability of collecting and utilizing information has made a qualitative breakthrough, and the development of science and technology has broken through people's traditional concepts and perceptions one after another. The more people depend on the Internet, the more personal information will be uploaded. Whether information is dynamic or static, information security education is an important part of quality education in our country. Raising the education level of public information security is of great significance not only to the development of the public itself, but also to the protection of China's national security. Legislation protection is backed by national coercive power, but there is a lag. As an external regulation, it cannot achieve the high degree of self-discipline protection. China's information security education has received good environmental support and policy guarantees, and has made considerable progress and development, but there are still deficiencies. I hope that through this discussion, we will provide reference reform ideas for strengthening and improving China's information security education and ensuring China's information security.

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