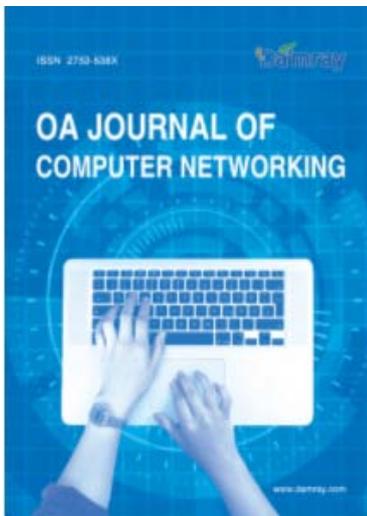


The Importance of Protecting Personal Information in the Era of Big Data

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Abstract

With the advent of the era of big data, the Internet of Things, cloud storage, artificial intelligence, communications and other network fields have developed rapidly, and the storage, analysis, and utilization of data have received widespread attention. Big data technology is widely spread around the world and is under development. Big data analysis and processing can be summarized as big data collection, big data storage, big data preprocessing, big data analysis and mining, and visual presentation. In order to improve the application value of big data analysis platform, big data analysis and processing can be summarized into five parts: big data collection, big data storage, big data preprocessing, big data analysis and mining, and visual presentation. Data collection generally takes sensors, mobile terminals, log files, and web crawlers. For data storage problems, cloud storage can be used, big data analysis platform is of great significance, it can effectively promote social data exchange. This article alerts citizens to the current explosive growth of data. Raise awareness of the protection of personal information, list the serious consequences of divulging personal information, and provide references and methods for people on how to effectively protect personal information.

Keywords

Big Data, Information Security, Information Protection

Since the rise of computers in the 1970s, people have entered the era of electronic information. The initial change is that people can use computers to replace manual calculations. For tens of thousands or even hundreds of thousands of calculations, people can use computers to perform calculations within a few hours. It is easy to get the results, the computer has a powerful computing speed, which is unmatched by the human brain, which greatly reduces the consumption of manpower, material resources, financial resources, etc., and the number of people who use the computer increases exponentially. As of 2016, the number of mobile Internet users in China reached 620 million [1]. People can not only use computers to solve work problems, but also use computers to solve life problems, including eating, shopping, learning, entertainment, etc., such as computer games, Computer games can greatly relax and satisfy people's psychology. The upgrade of games brings people infinite spiritual enjoyment. With the popularization of computers, people

have gradually changed from face-to-face communication to computer typing, voice, and video. Changes in lifestyles have also led to the fact that people can order takeaways to eat, shop online for clothes, and even develop clothing, food, housing, and transportation that can be solved through the Internet. With the help of modern technology, people enjoy the convenience brought by computers all the time. The computer network is like a familiar and unfamiliar friend in our life. The reason for the familiarity is that the big data network is closely related to people's lives. We cannot leave the big data network to serve us. People are used to having him around. The consequences of leaving him are unimaginable, and the body and mind will be severely hit; the reason for the strangeness is that his explorability, the computer network function is so powerful, and some experts and scholars believe that whether a computer can replace the human brain one day, this point It is unknown to us. From the current point of view, the development speed of computers, the Internet, and big data has accelerated unprecedentedly, making science and technology our primary productive force, and information becoming an important social resource, promoting the extreme development of our social economy. Great improvement, even taking digital development as an important development strategy at the national level, social progress and national development are also inseparable from big data analysis.

While big data technology provides people with benefits, it also hides many crises, such as information leakage. Due to people's heavy reliance on the network, some hackers and malicious programs in the network will steal users' personal privacy information quietly, including names, mobile phone numbers, home addresses, etc. As of December 2015, information security problems were as high as 95.5% [1]. People with ulterior motives would steal information and engage in illegal activities, such as wire fraud, kidnapping, extortion, etc. It is a great threat. The loss of user traffic, phone bills, and personal property due to information leakage accounts for as high as 8.9% [1]. Criminals will also illegally trade victims' personal information to gain benefits. In 2017, the world's information There were a total of 5,207 leaks, including 7.8 billion pieces of personal information [2]. This has seriously damaged citizens' right to privacy and personal information, and even more serious damage to citizens' life and property safety, such as the death of Xu Yuyu, the death of Li Wenxing, etc. [1], so the problem of information leakage should not be underestimated. Great challenge to the economy and development of the society and the country.

Due to the current development of information technology, various social platforms, third-party organizations and other communities of interest may leak people's personal information. For example, some current APPs will automatically collect personal information before installation. Otherwise, they cannot be installed and used normally. It will also locate users' preferences through big data analysis, so as to recommend products to users, promote consumption and profit. This is only one way for users to disclose personal information at present. Other apps, including takeaway, travel, work and study, will also Users' personal information is classified and aggregated, and the disadvantage is that we are unintentionally exposing personal information. For example, as early as the end of 1999, a report released by MareRotten, executive director of EPIC, showed that 87% of e-commerce websites use Cookies to track consumers' information. Online activities [3]; for example, online shopping has become the main way of shopping for modern people. According to the "2018 (Part 1) China Online Market Retail Data Report", in the first half of 2018, the transaction scale of China's online retail market has reached 4.081 trillion Yuan, a year-on-year increase of 301% [3]. The importance of protecting personal information can be seen. There are also a large number of scholars who scientifically give the meaning of big data through literature analysis methods, case analysis methods, comprehensive analysis methods, questionnaire survey methods and other methods, and combine the research results of domestic and foreign experts and scholars to find that the protection of personal information is imminent, otherwise the consequences will be disastrous.

1. Improve the Corresponding Protection Regulations

People should always pay attention to protecting the security of personal information in their daily life. In order to ensure the normal progress and stability of people's lives, the state has also issued corresponding laws and regulations to protect people's personal rights and interests to the greatest extent possible.

My country's "Criminal Law" and "Civil Law" both propose legislative protection for the security of citizens' personal information, but the development of big data obviously has more or less blurred legal boundaries on the original legal provisions [4]. Therefore, the government should promulgate relevant regulations to restrict the information search for APP installation, check the installation terms of each App, and regulate unreasonable installation requests. The government and App manufacturers should cooperate to jointly protect users' personal information and centralize users' personal information. For cloud management, the government supervises the password of users' personal information, vigorously develops data encryption technology, intrusion detection technology [5] and software to protect information, fuzzifies data, and expands the use of anonymous technology [6]. Carry out transparent management of APP manufacturers, comprehensively use criminal and technological means, build a diversified information security protection system [2], increase the inspection and supervision of APP manufacturers, and formulate corresponding punishment meas-

ures. Protect the security of citizens' personal information to the maximum extent possible. The state should further refine the specific scope of personal information, and introduce corresponding laws to provide support for government supervision, so as to make the laws in this area more complete.

2. Strengthen Citizens' Awareness of Personal Prevention

E-commerce brought about by big data has become the general trend. Therefore, citizens should play the main role when using the Internet, give full play to their own initiative, strengthen their awareness of rights protection, and have the courage to carry out rights protection actions. They should take the initiative to learn personal information security knowledge, including technical protection. Knowledge of various aspects, such as network firewall, incognito browsing, anti-virus software, anonymous registration, etc. [7] corresponding courses can be conducted in various communities in the city to each village, and online training can also be carried out [8] to protect the Personal information security is regarded as a necessary safety rule in life, and at the same time, information protection ideas should be transmitted to others in life, so that everyone pays attention to information security protection, forms a closed loop of knowledge, and everyone gathers firewood and the flame is high, forming a good self-protection. The social ethos of information security can even be observed as social merit.

3. Strengthen the self-discipline of major websites and enterprises

With the development of the digital economy, citizens' personal information has gradually become an important resource for major websites and major enterprises to seek huge profits. Many websites and businesses will even violate the bottom line of the law for their immediate interests, and try to escape legal sanctions. As a result, some people have followed suit and smashed the original business model. Driven by interests, many people have become more mercenary, self-interested, and even extortion. Personal information is the main incentive. The society has caused a huge negative impact, and the healthy development of society is of course inseparable from the self-regulation of major websites and enterprises, regulate their own behavior, and set a benchmark for other emerging companies. Everyone must and must go through formal and reasonable channels. Obtain personal information, keep the personal information strictly confidential, and use it reasonably without violating the law, so as to truly know the law and not break the law, and obey the law.

4. Information Security Processing Technology Based on Computer Big Data

In order to better protect information and prevent information leakage, big data key technology and backup technology can be used to protect massive data. There are two methods: symmetric and asymmetric. Specifically, decompression is set on massive data packets. Passwords and authentication passwords, combined with the rapid development of artificial intelligence, have greatly improved information security. At the same time, tunnel technology [9] can be used to improve the efficiency of information security processing. Specifically, the data is compressed and encrypted for centralized data transportation and transmission, which greatly improves the efficiency of information security. It greatly improves the security of information transmission. Upgrade processing is often involved in information security processing technology. Large-scale network database products can be used to upgrade the database to ensure the accuracy and authenticity of data to the greatest extent. Various software and hardware encryption [10], to improve people's information security literacy.

5. Conclusion

In today's fast-developing Internet era, information exchange has become the mainstream mode of social development. Data plays an important role in various fields of the country, such as network cloud technology and information storage technology. People's lives are inseparable from all kinds of information. The information in it is also mixed, good and bad. Therefore, we must pay attention to the shortcomings of information security. Information security is very important for every citizen. Protecting personal information is not only the right of every citizen, but also the obligation of every citizen, while enjoying power, people should also correctly perform their obligations, maintain a safe and orderly network environment with rapid development, and under the condition of information protection, truly achieve information sharing and flow in the right direction, to contribute to the rapid development of human civilization.

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