

Application and practice of computer information processing technology based on large data

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Abstract: With the continuous improvement of advanced science and technology, the specific requirements for the storage space inside the computer are also more strict. Under the background of the times, large data technology emerged, which provides a lot of convenience for daily production and life. This paper introduces the data theory and the computer IPT, and discusses the main characteristics of the computer IPT. large data is the general name of many data information integration, which has been widely used in various industries. Computer IPT is the prerequisite for the continuous development of large data. Under the background of large data, computer IPT shows the development trend of cloud computing network, data resource sharing and Internet technology. At the same time, computer IPT is also facing great challenges, mainly manifested in the need for higher information security level and stronger data value mining ability.

1. Introduction

The changes are so great that the computing tools we have used in the past decade are no longer capable of meeting these new challenges. However, this does not mean that we can only wait and die; on the contrary, as shown by Internet giants such as Google, Yahoo, Facebook, and Amazon, as well as some growing start-ups, we can use completely different methods to solve databases, data storage, and Other computer information processing problems, and these technological innovations mainly occur in the Internet services provided to consumers [1]. The application of computer has changed people's traditional way of life and pointed out the direction of social development. In modern society, people's requirements for computer storage space have gradually increased, and many network companies have also increased their research efforts in this area, so as to provide better services for Internet customers. large data was born in this case, providing convenience for people's life, It also promotes the development of computer IPT [2]. With the development of science and technology, computer IPT will be more perfect. The development of computer information processing ability is the foundation of efficient data application, otherwise a large amount of data can not be applied reasonably, but will hinder the application of network. Therefore, in the future development of computer technology, the computer information processing ability should be continuously innovated to cope with the explosive growth of data [3]. With the increase in the amount and complexity of computer network information, the use of tables for data resource collection, processing and management has been difficult to adapt to the diverse data processing needs of different social subjects. In this case, with the full use of large data management platform, distributed system architecture, data access control, data security backup and other modules, the data information transmitted in the network can be encrypted and coordinated management, which can realize the access and data of different network users. The security and efficiency of information processing, communication resource transmission and storage [4].

China has fully entered the information society, and the Internet plays an increasingly important role in people's daily life and work [5]. With the continuous expansion of the scope of Internet applications, a huge amount of data information is generated, which is integrated to form large data [6]. Realizing the sharing of large data information is the main responsibility of computer information processing. Faced with such huge data information, the computer information processing work is under great pressure. In order to further tap the application value of large data, it is necessary to continuously strengthen the computer information processing ability, so as to meet

the increasing information growth rate [7]. Generally speaking, in order to maximize the value of network data, there must be corresponding IPT to match it. When IPT cannot meet the huge data processing needs, it will inevitably result in a waste of data resources, fail to reflect the market value of large data, and will also impose a greater burden on the operation of the Internet. For this reason, in order to better satisfy the large data The development speed of the data age must increase the research of computer IPT, discuss the future development trend and challenges of computer processing technology, and promote the development of computer IPT to a higher level [8].

2. Overview of large data and computer IPT

2.1. Overview of large data

Large data refers to a huge amount of data, but it is not only limited to the amount of data information, but also reflected in the gradual complexity, diversification and repetition of information. With the continuous development of social virtual data, the emergence of large data is inevitable. Compared with traditional computing, it has many advantages, such as low cost, high resource utilization and large scale. Due to the large size of large data, data also has a certain degree of redundancy, and the relationship between data is more complex. With large data, all kinds of activity data can be stored. The key technologies of large data mainly include classification analysis, genetic algorithm and so on. For large data, it also has good decision-making ability and insight ability, and also has data processing ability, which is consistent with the requirements of Internet of Things technology and computer development. Its ultimate goal is to serve people and try to change people's existing living conditions. Affected by the era of large data, various Internet resources also appear in people's lives, such as 360 cloud disk and Baidu cloud disk. As long as the user stores the information on these cloud disks, and sets the account and password, he can view it anytime and anywhere, and change the original operation. large data is a combination of many data and information. With the continuous improvement of my country's social economy and modern technology, the radiation range of large data has become more and more extensive. It not only reflects the hugeness of data resources, but also expresses The diversity, commonality and complexity of data resources. large data is produced using computer technology as the carrier. The application of large data is bound to be inseparable from the support of computer technology. The wide application of large data is also based on the large-scale use of computers in various industries.

2.2. Main contents of computer IPT

Computer IPT plays an important role in the management of modern enterprises and institutions. Combined with data transmission technology, information analysis technology and other technologies, it provides convenience for data management. Computer IPT contains a lot of content, but its core is still computer technology, widely used by enterprises and institutions, has become an indispensable part of daily work. When people, hardware and software are combined, office can become a reality. It not only improves the office efficiency, but also improves the data processing capacity, fundamentally changing the existing office mode. Computer IPT plays an important role in the management of modern enterprises and institutions, which combines data transmission technology, information analysis technology and other technologies to provide convenience for data management. Computer IPT contains many contents, but its core is still computer technology, which is widely used by various enterprises and institutions and has become an indispensable part of daily office work. As long as people, hardware and software are combined, an office can be realized, which not only improves the office efficiency, but also improves the data processing ability, and fundamentally changes the existing office mode. At present, computer IPT mainly includes big data cloud computing management platform, Hadoop distributed data processing architecture, data access control and sharing, etc. In the process of computer data collection, analysis, processing and storage, different modules are responsible for different data. Resource allocation and information processing links. First of all, the big data cloud computing management

platform is an important technology to realize computer information processing, which is mainly divided into platform as a service, software as a service and infrastructure as a service. Among them, infrastructure as a service is the bottom layer of the big data cloud computing platform. The platform is oriented to software development, and the platform usually relies on a large number of cloud servers in the background to provide users with basic data computing and information storage capabilities. In the process of using the big data cloud computing management platform to expand data resource services in various industries, virtual computing modules are mainly deployed on each master node to perform on-demand matching of data information processing. Control the internal physical resource layer and user Web service access, data resource processing and management tasks.

3. Development of Computer Information Processing Technology Based on Big Data

3.1. The plan of computer information processing platform construction

Under the background of large data age, cloud computing is mainly responsible for providing storage places for large data resources. At present, cloud technology plays a very important role in computer network technology. Cloud computing network is also built on the Internet structure. Cloud computing network created by this mode has obvious disadvantages, but even so, on the basis of the strong processing level shown by cloud computing network, Many industries have given great hope to cloud computing network and increased the research and development of cloud computing network. At present, cloud computing has been able to complete the functions of Internet data transmission, analysis and speed up, and also showed a very wide range of application value. In order to promote the rapid development of large data, we must solve the problem of data storage and integration, and cloud computing network technology will inevitably become an important direction of computer network technology development in the future. In the construction of computer information processing system, it is necessary to collect and sort out a variety of data resources from a huge database, and then carry out the processing and analysis of massive large data information to screen out important and useful information to meet the diverse data use needs of different users. The execution flow of the computer information processing system is shown in Figure 1:

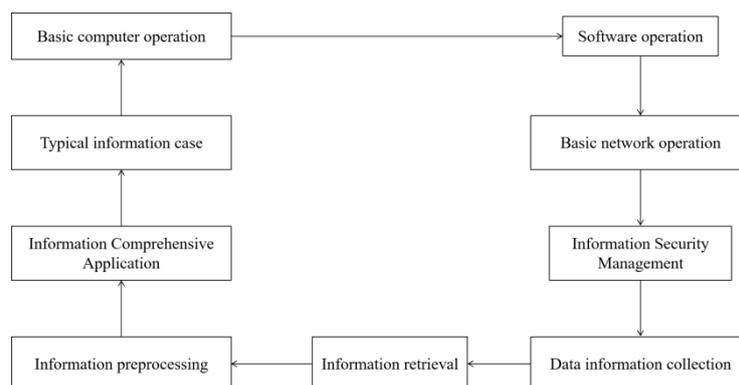


Figure 1 The execution flow of the computer information processing system

As can be seen from the above data flow chart, computer data information processing usually includes data collection and screening, preprocessing, information processing, useful data extraction, data upload and other components. It will use web crawler, large data cloud computing management, distributed parallel computing, cloud server data storage, large data access control and other technologies. Different technologies are responsible for different data resource collection, information processing and data management, so as to ensure the safety and reliability of the whole data and information processing implementation, software and hardware function execution. The Internet of Things is the key direction of the development of all walks of life. The rapid development of the Internet of Things can not be separated from the technical support of high-tech industries such as communication system, information technology and computer technology. As a

new industry, the Internet of Things is deeply rooted in mature network engineering. The technological innovation of computer information processing will greatly promote the progress of the Internet of Things, such as the popularization and application of e-wallet, the establishment of information-based pension system and the rise of electronic red-envelope. The mature application of computer information processing capability is behind it, thus completing the popularization of large data and cloud technology functions. Cloud computing stores a large amount of data in the cloud, realizes data exchange with various electronic devices on the cloud platform, and fulfills users' requirements for data upload and download. With the support of computer data processing capabilities, cloud computing capabilities have been greatly improved, realizing continuous optimization of its own performance. Figure 2 shows the structural relationship between the Internet of Things, cloud computing, the Internet and large data.

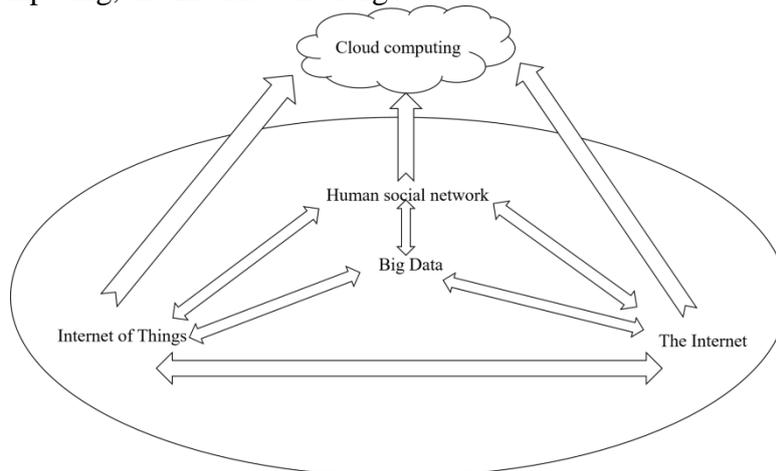


Figure 2 The structural relationship between the Internet of Things, cloud computing, the Internet and large data

We have many reasons to be optimistic about the future value creation potential of computer IPT and Internet technology. Despite these challenges, there are plenty of opportunities for information scientists, computer scientists and entrepreneurs.

3.2. Development of Computer Security Information Technology

With the continuous development and innovation of Internet technology, computer IPT has also been developed rapidly. The two complement each other and develop together. Only in the Internet environment can the integration and use of network data be realized. Therefore, the development of computer IPT in the background of large data must be closely combined with Internet technology, computer technology as the carrier to realize the innovation and development of IPT, constantly improve and improve the current data processing mode, strengthen the speed and quality of computer integrated data, and further improve the creation of large data platform based on Internet. After the arrival of the era of large data, all data systems can be connected together through the network, and the information stored on personal terminal devices can also realize resource sharing, for example, mobile phones and computers can realize resource sharing. The network itself has a certain degree of openness. Everyone can download the required information from the internet, but it also leaves an opportunity for illegal elements. As long as they analyze the data, they can steal other people's information and threaten the security of computer information. Therefore, computer security information technology has also become the development direction and focus of computer IPT in the era of large data. At the same time, a brand-new information data structure is implemented, the development direction of big data is reasonably judged, the traditional computer information data in the past is promoted to carry out subversive processing and analysis, and the actual quality and analysis level of computer processing are really strengthened. In the process of using computers to carry out information processing, we actively cooperate with various R&D companies to effectively improve the analysis template of computer data information processing. In this way, we can further strengthen the initiative of R&D work, comprehensively promote mutual

reference and communication within the same industry, and truly promote the rapid improvement of computer IPT in the future.

In order to improve the security technology, we need to build a perfect system management to enhance the security of data. The former computer information processing software is not suitable for the security management requirements in the era of large data, and it can not be used in the security management of large data. This requires attention to the development of security software and the formation of a new security management system. Only in this way can we promote the development of computer security information technology. In the era of large data, opportunities and challenges always exist in the development of computer IPT. With the continuous improvement of network popularity and the improvement of data and information interaction performance, the importance of data and information security becomes more prominent. Enterprises protect data and information security not only for their own development, but also for the attitude of being responsible to customers. In the process of data transmission, it is necessary to pay close attention to the network situation and distinguish the true and false information. If you accidentally enter phishing websites or are maliciously attacked by network hackers, it will cause information leakage, and the confidentiality and property of enterprises and personnel will cause losses. The accumulation and analysis of large data is a long process of accumulation of original data. This task cannot be accomplished by a few companies alone, but by the collaboration of various companies in the industry to complete the establishment of the industry's basic database, and in the future development process China continues to improve it.

4. Conclusions

People's requirements for computer data processing capabilities have been continuously transitioning to the era of large data, and large data is becoming more and more important in enterprise operation and management. Only by completing the continuous optimization of computer IPT can people's work needs be met. It is foreseeable that in the future, computer IPT will be an important direction of the high-tech industry, and it will be further improved in the near future. At present, the degree of informatization has been improved, but the management and analysis ability of data still needs to be improved. This requires all walks of life to pay more attention to the field, to improve the training of professional talents in this field, and to realize the great leap of computer IPT in the background of large data. The arrival of large data era brings opportunities for computer IPT, and more people can apply computer technology to complete information analysis and processing, which lays a foundation for the popularization of large data computer IPT. However, as opportunities arise, there are also challenges, and people's requirements for computer security information technology are gradually increasing. This requires relevant technical personnel to make up for deficiencies by using scientific knowledge, build a sound security system, improve computer information security, continuously expand computer information processing capabilities, and apply them to various fields, especially large enterprises can understand people's needs through data analysis, develop new products, and then promote the sound and rapid development of national economy.

References

- [1] Tan Enyan. Discussion on computer IPT under the background of large data era. *Computer knowledge and technology*, vol. 14, no. 10, pp. 42-44, 2018.
- [2] Jin Yu. Discussion on Computer Information Processing Technology in the "Big Data" Era. *Information and Computer (Theoretical Edition)*, vol. 399, no. 5, pp. 209-210, 2018.
- [3] Wei Rong. Research on computer IPT under the background of large data. *Information and Computer*, vol. 32, no. 2, pp. 207-208, 2020.
- [4] Zhang Wenjuan, Sun Dan. Analysis of Computer Information Processing Technology under the Background of Big Data Era. *Science and Technology Information*, vol. 36, no. 501, pp. 208-209,

2017.

[5] Guan Haoru. Computer Information Processing Technology in the "Big Data" Era. China New Communications, vol. 20, no. 7, pp. 19-20, 2018.

[6] Wang Xiewei. Research on Computer Information Processing Technology Based on Big Data. Computer Knowledge and Technology, vol. 13, no. 30, pp. 37-38, 2017.

[7] Zhang Huafeng, Huang Xiaoli, Zhao Bo, et al. Research on computer IPT in the "large data" era. Computer fans, no. 1, pp. 147,119, 2018.

[8] Li Xin. Discussion on Computer Information Processing Technology in the Big Data Era. China Management Informationization, vol. 21, no. 13, pp. 141-142, 2018.