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Research on Computer Information Processing Technology Based on the Background of Big Data Era

Wenjie Li

Wuhan Polytechnic, Wuhan 430074, Hubei, China.

Abstract: The development of economy and society has created a good external environment for the renewal and development of information technology. Under the background of big data era, the application of computer information processing technology is increasingly closely related to people's daily life and work. However, in the application process of related technologies, due to the influence of human unreasonable operation and other factors, some information security risks will also be generated. Strengthening the prevention of related security risks is related to the application of related technologies. Therefore, it is necessary to analyze the characteristics of computer processing technology. Based on the background of big data era, this paper takes computer information processing technology as the starting point.
Keywords: Big Data Era; Computer Information Processing Technology; Explore

1. Introduction

The application of computer information processing technology has greatly improved the information processing efficiency and is increasingly widely used in many industries. It not only creates convenience for users to obtain information, but also promotes the optimal allocation of resources, which is of great significance for the long-term and healthy development of economy and society. Under the background of the big data era, the speed of information dissemination and updating has been accelerating, and the amount of information data has also been greatly improved. The application of information processing technology is becoming more and more important. How to avoid the influence of external unstable factors and ensure the efficiency and security of information processing has become the key in the application of computer information processing technology.

2. Characteristics and overview of computer information processing technology under the background of big data era

Grasping the characteristics of computer information processing technology is conducive to the application of related technologies. The first is that the total amount of information data is relatively large. Due to the large amount of data, the traditional operation tools are difficult to achieve the ideal processing effect, and the computer operation greatly improves the processing efficiency; Secondly, there are many kinds, and the content of information processing is more diverse; Finally, the transmission is fast. The computer information processing technology adopts a new network communication architecture, and the information transmission efficiency has been greatly improved. The operation takes the CPU as the core, which reduces the external interference factors and creates a more stable external environment for the processing of information and data. The computer's information processing work is more targeted, and the operation results are more objective and accurate. The multi-threaded processing mode of the information processing core can greatly improve the computer's information processing efficiency.

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As a comprehensive technology, computer information processing technology can realize the storage, access, transmission and processing of information through computer terminal and Internet platform. According to different information processing requirements, it can be divided into database technology application, communication network technology, information system technology application and retrieval technology application. With the in-depth application and development of computer information processing technology, computer information processing technology can be applied not only in PC, but also in intelligent wearable and other intelligent devices.

3. Computer information processing technology under the background of big data era

3.1 Computer information storage technology

After the acquisition of relevant information and data, it is often necessary to make use of computer data information storage technology to complete the task of information storage. Through the application of database, information storage technology stores the existing information and data, which can not only complete the information storage task, but also create convenience for users' later information retrieval and other information processing work. The development of Internet platform makes the information storage work easier and optimizes users' information processing experience to a great extent.

3.2 Computer information communication technology

After completing the basic information acquisition and collection, the computer screens the information and data according to the specific needs and feeds back the final screening results to relevant users in time. However, the transmission of information and data will be affected by many factors, such as the specific types of information and data transmission technology. When applying information transmission technology, staff in relevant industries should. On the one hand, strengthen protection to avoid information loss. On the other hand, promote the application of new information transmission technology to ensure the quality and efficiency of information transmission.

3.3 Computer information acquisition technology

For the collection of computer information, we should not only ensure the efficiency of information collection, but also integrate information and data, classify different types of information data, and create conditions for later information data processing. The application of information monitoring technology is one of the representatives. This technology can not only complete the task of information collection in a short time, but also play a certain role of supervision, creating convenience for users' information retrieval and extraction.

4. Application status of computer information processing technology

4.1 Increasing information vulnerabilities

The development of information processing technology promotes the progress of visual simulation technology, which is a great challenge for authenticity analysis, verification and data comprehensiveness. The increase in the total amount of information and data has also virtually increased data vulnerabilities. If effective countermeasures cannot be taken in time, these data vulnerabilities will pose a threat to users' information security. The intrusion of hackers and other criminals is also a severe challenge to information security. Therefore, we should strengthen the construction of dynamic monitoring system and improve the security of data information through tracking and monitoring.

4.2 Increased storage space requirements

The increase of the total amount of data information also has higher requirements for data storage space. The update and development of storage media and storage technology create convenience for data storage. How to extract effective data and information has become the focus of industry staff. Information processing technology, as the core of information processing, is related to the extraction of important information. The elimination of interference information in the process of data information extraction has become the key in the application of technology.

4.3 There is big data abuse

The processing of massive information and data by computers has higher requirements for the broadband information transmission rate of operators' networks and the performance of hardware. With the development and application of cloud computing, Internet of things and other technologies, the total amount of data is increasing and the types of data are becoming more and more diverse. In order to adapt to the increasingly fierce external situation, many industries and enterprises have strengthened the application of computer information processing technology, which not only improves the processing efficiency of data information, but also can deeply dig into the industrial chain within the enterprise. However, the staff of many enterprises is limited to their own professional level, and their understanding of big data is superficial, resulting in the common abuse of big data, which cannot guarantee the quality of computer information processing.

5. Innovation strategy of computer information processing technology under the background of big data era

5.1 Application of information security technology

Information security is the basis and premise to ensure the steady progress of information processing. Therefore, strengthening the application of information security technology is the primary task of computer information processing in the current era. Authentication technology and data encryption technology are the representatives of information security technology. As for the application of information security technology, there are the following key points: Firstly, when applying relevant encryption technologies, different encryption technologies can be selected to realize the encryption of information data according to different information encryption requirements; Secondly, before applying specific information security technology, we need to build a perfect IT network framework, which can not only improve the adaptability of information security technology, but also ensure the pertinence of information security management.

5.2 Using distributed storage technology

For the diversified structure of big data and massive data, it is necessary to strengthen the application of distributed storage technology. In the process of applying distributed storage technology, it can not only realize the effective utilization of multiple servers, so as to identify and process information and data in a short time, greatly improve the efficiency of information processing, but also solve the problem of data classification, which is of great significance to promote the optimal allocation of information data and other resources; Secondly, in the process of applying the storage technology, the computer information processing technology can be used through the network special line and relevant network resources, so as to process and manage the information and data in the database. For different types of information and data, different distribution and storage can be realized, which is conducive to the maximum utilization of information and data.

5.3 Application of big data mining technology

The development and application of big data resources depend on the application of big data mining technology. In the application of computer information processing technology, it is necessary to strengthen the application of related technologies. Firstly, the big data mining technology is used to improve the efficiency of information processing; Secondly, the use of this technology can select data resources in combination with the actual needs. After completing the basic data selection, it can also eliminate some useless data in time, which is not only conducive to improving the pertinence of information processing, but also ensure the objectivity of information processing results; Finally, the application of artificial intelligence technology in mining technology can promote the integration of different information and data, make use of clustering and neural network technology, and promote the development of computer information processing through intuitive display mode.

6. Conclusion

Computer information processing technology in the era of big data is facing more challenges and opportunities. How to comply with the development of the times and industry and deepen the application of computer information processing technology has become the key to the development of relevant industries. Relevant industries should change their application concepts in time based on the needs of different users. On the one hand, they should strengthen the application of new information processing technology. On the other hand, we should also strengthen the infrastructure construction of the industry and promote the information construction of the industry.

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