Research on the Optimization Design of Computer Information Management Software under the Background of Big Data

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Keywords: Big Data Era, Computer, Information Management Software

Abstract: with the continuous expansion of large-scale data, the reservation management software of computer information system is also expanded to a certain extent. The necessary conditions of computer information management software are analyzed. Based on large-scale data, the optimal design of network information management software is proposed. Experiments show that the optimized management software can improve the accuracy of information, reduce unnecessary consumption, and facilitate the collection and processing of information.

1. Introduction

With the continuous progress and update of information technology and the continuous development of network technology, computer information management software has been widely used in various fields of people's life[1]. In the context of large-scale data, this paper discusses the optimization of computer information management software in three aspects. Through the use of big data in computer information processing technology, in order to determine the specific information processing process, the computer information management software is analyzed. Through the analysis of experimental experience, the best design method of computer information management software is determined, and the data is sorted[2]. This not only improves the accuracy of information collection, but also improves the security performance of data information. The purpose of this paper is to improve the function and efficiency of computer information management software by reasonably optimizing the design of network information technology elements in the era of large-scale data.

2. Optimization Technology of Information Management Software

The optimization technology of network information management software essentially integrates all groups of traditional tools or symbols that cannot collect, analyze and adjust specific time and space areas. If that is persuasive and effective, it must be handled by a new analysis system.

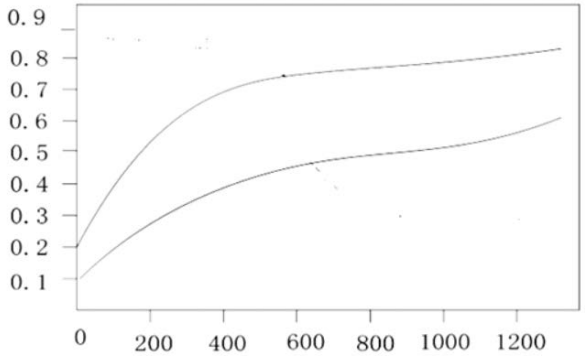

Figure 1 Graph of experimental demonstration results

2.1. Procedures for Optimization

  DOI: 10.25236/cseem.2020.152

The most basic method of information management software optimization is to rationalize some useful information from a huge database[3]. In order to save these useful data, purchase according to different objects. Appropriate treatment techniques to meet various conditions. Then the results from big data analysis are fed back to the corresponding objects. It must be clear what kind of data is needed in the optimization design process. Data and information can be analyzed systematically if the purpose is clear.

2.2. Optimization and Adjustment of Network Information Software

With the development of modern technology, big data is ubiquitous in people's life. The era of big data is the era of sustainable development of information technology, and information collection and processing are more convenient. In the era of big data, computer information management technology has a huge amount of data[4]. In the traditional data model, the computer information management software is very few. In addition, the diversity of information data includes reasonable data model and various information processing samples. Aiming at such different goals, big data is widely used in information management.

Table 1 General Thought of Security Protection for Big Data Platform

<table>
<tr><td rowspan="2">Safety management system</td><td colspan="3">Big Data Security Laws and Regulations</td><td rowspan="6">Management + Technology</td></tr>
<tr><td>Information Security Management System</td><td>Information Security Supervision</td><td>Talents and Core Technology</td></tr>
<tr><td rowspan="2">Platform safety management</td><td colspan="3">Safety Management of Big Data Platform</td></tr>
<tr><td>Data privilege control</td><td>Data desensitization and privacy protection</td><td>Data trustworthiness</td></tr>
<tr><td rowspan="2">Basic safety</td><td>Terminal security</td><td>network security</td><td>Cloud Security</td></tr>
<tr><td colspan="3">Safety of physical facilities</td></tr>
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3. Analysis on the Optimization Requirements of Network Information Management Software

With the increase of information, people want to optimize the computer information management system and analyze the requirements of information management software. In the context of big data, the computer information management system has the following generality[5]: first, the computer information management system must completely determine the information data processing library. As a result, information can be collected anywhere without mixing with other data sources that can be analyzed.

3.1. Software Development Information Relationship

Software development information covers a wide range. This contains more kinds of information. This is a software development process based on the relationship between the main layer and the underlying layer. In the process of software development information, it is necessary to ensure the appropriateness of software development information request, and gradually carry out the basic calculation of the working steps that can realize the automatic setting process. After gradually realizing the business requirements under the established plan, it is necessary to make a reasonable technical plan to ensure the realization and Realization of the technical requirements[6]. The requirements of software development information management system have specific dependence. When designing computer software to develop information management system, it is necessary to design system requirements reasonably according to the actual needs of system management. The function design of computer software development information management system is very important. Through the realization of full function design, the service performance of software development information management system can be greatly improved.

3.2. Software Development Information Management Requirements

In the requirements information management workload phase, there are two main aspects. As the

actual needs of managers, only these two aspects can be scientifically analyzed and designed. In order to effectively reduce the investment of talents in information management[7]. Business requirement is an important reference level of information management system design. It has high technical requirements for information management system. In order to meet the requirements of service performance and realize information standardization, technology and quality management and development must be centralized.

4. Optimization Design of Network Information Management Software

In the era of big data, computer information management software needs to collect and process a lot of information, keep the advantages of traditional design, and make up for the disadvantages of traditional solutions. Here, three optimization design methods of network information management software, that is, the optimization of external structure of computer information management software and the optimization of internal design of management software, and the optimization of database are introduced [8].

4.1. Optimization of External Structure of Management Software

For computer network technology, the biggest obstacle of external design is the larger area of external structure. Computer information management software determines whether the external structure of the management software is beautiful and the frequency of using the system. Therefore, if the management software is designed to be small and practical, it means that the management software can be used more frequently[9]. In the era of big data, the amount of information input has increased significantly than in the past, but the amount of accumulated data has increased, and the external structure of software cannot be expanded. On the other hand, it is necessary to reduce the external structure of management software.

4.2. Optimization of Internal Design of Management Software

In the era of big data, with the continuous expansion of data and information, it is necessary to further optimize the internal structure of computer management software system. Traditional computer information management software has a small amount of information stored in the internal system and low security performance. In addition, the information processing and filtering is very rough, sometimes it will lose the very important information which has an impact on information processing. In the context of big data, the internal structure design of computer information management software must meet three "must", because people have high requirements for information source and data. In addition, information security and confidentiality must meet the needs of users. As long as the internal design of management software is optimized, the use of computer information management software can be improved.

4.3. Database Optimization

The core of optimizing computer information management system is the design and optimization of database. Database is the foundation and guarantee of information data analysis and processing. It is characterized by the need to maintain relative stability and data filtering and processing functions. Computers, databases, and systems are customizable, and with optimization, all the information that a computer system can collect can be masked and processed on a large scale. Finally, information management software can be stored. The analysis is based on the specific composition scheme, the establishment of the corresponding quantitative data, and the final determination of the specific keywords between the data information. Only when the database is optimized, can the data that people get be computerized finally.

4.4. Design of Display Information and Query Module

The design core of display information and query module is mainly the application of multi-layer display mode, and the other is the application of plane display mode. The multi display mode is different from the flat display mode. Basically, taking the tracking node of the main relation tree as

the object, the maintenance and utilization of the computer software information management system is realized by displaying the information data properly. The flat panel display mode has obvious characteristics. It can switch between modes and carry out relevant software development information and operation through advanced query methods.

5. Experimental demonstration and Analysis

In order to ensure the effectiveness and reliability of the optimal design of the computer information management software proposed in this paper, experiments are carried out. Two different design methods are used in the experimental demonstration, one is the traditional software design method, the other is the optimization method. Two different methods are used to compare the accuracy of information collection. according to figure 2, as the amount of information and data increases, the optimal design in this paper is usually better than the existing design. In particular, the accuracy of information collection is better than the existing information management. The proposed optimization design has important advantages, especially when the amount of information input is more than 400, the accuracy of information collection will be further improved, far more than the accuracy of the existing software system.

6. Application of Computer Software Development Information Management System

6.1. Provide Users with Convenient Information Services

The service of traditional computer software information management system is relatively small. When providing users with appropriate information management services, the business efficiency is relatively low, it is difficult to ensure the security and integration of information accumulation and transmission, which is not conducive to the development of information management. As a new information processing system, the existing information management method of computer software development needs to change the development of computer software. As a result, the information management system has been improved to some extent. Efficiency and level of user information is a full face information management system. In order to develop computer software for use, they are data input related information of information search page. And to ensure the reliability and security of information. When users send all inclusive information, they can develop information management system services through computer software to realize information classification, integration and information transmission.

6.2. Provide Reliable Information Management Services for Enterprises

The amount of information and data of enterprises and units is very large. Developing the application of computer software in the information management system of enterprise activities and unit management can improve the efficiency of enterprise. Through the advantages of information management system, real-time data collection and enterprise activity management can be realized. Management computer software development information management system services cover search, business and service as a whole. Enterprises can develop information management system based on their own development situation, and combine it with computer software to understand the development information of enterprises in real time. They can master the industry development information within the specified time, make reasonable adjustments, and improve the development of enterprises. In order to promote the application of computer software in the management information management system of enterprise units, not only the scientific knowledge of enterprise information management can be understood, but also the phenomenon of manual intervention can be effectively improved. But in order to improve the correct information and data reporting of enterprise activities. Enabling enterprises to grow and transform into information.

7. Conclusion

This paper introduces the processing program and application scope of large-scale data, analyzes

in detail the necessary conditions of computer information management software, and puts forward a solution to optimize the computer information management software to meet these needs. In addition, in order to achieve the purpose of this study, adjust the software system. The best design method of the proposal shows a high degree of effectiveness. It is hoped that the research of this paper can provide a reliable theoretical basis for the optimization of computer information management software in the context of big data.

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