Discussion on the Application of Computer Software Technology in the Age of Big Data

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ABSTRACT. *Nowadays, Internet and smart technologies are gradually promoted and popularized. Based on the rapid development of various new technologies in the era of big data, the speed of updating data information is accelerated, so that more accurate data can be obtained, which lays a solid foundation for the development and application of computer software technology. Improve computer software technology and service levels. It is not difficult to see that high efficiency, diversification, and large capacity are the main characteristics of big data itself. Using big data to solve problems can further reduce costs and improve overall efficiency. The article mainly summarizes the meaning of the era of big data and the status quo of computer software technology, discusses the significance of computer software technology in the era of big data, summarizes the types and specific applications of computer software technology, and deeply discusses the development direction and prospect of computer software technology.*

Keywords: *computer software; technology; big data; application*

1. Introduction

The birth of the Internet computer is one of the greatest inventions in modern history, which has completely improved people's lives, facilitated their work, and accelerated the frequency of computer updates. The rapid development of science and technology, cloud data has followed, and big data is widely used in various fields. The era of big data is an era full of opportunities. Major enterprises attach great importance to data maintenance and data collection, and enterprises are facing enormous challenges. In order to gain a foothold in the fierce market competition, it is necessary to intensify the innovation strength of computer software technology, improve information security, and obtain more accurate data.

2. Overview of the big data era

Generally, big data refers to a new type of data mode that solves a large amount of information. In addition, in the scope of computer operation, the general computer software cannot complete the collection and adjustment of large amounts of data, and big data can also be called huge amount of data. The origin of big data

is because the amount of data has exceeded 1PB, the popularization and promotion of science and technology has further increased the amount of data. The carriers and facilities used in data processing are also innovating. The two are closely related and indispensable. In addition, both of them belong to social production products, and the relationship between big data and cloud computing is close. The diversification characteristics of big data are obvious, the data processing speed is fast, and the data storage amount is very large. Computer data processing and analysis work are inseparable from the support of big data, based on the computer software technology in the era of big data. Social progress and scientific and technological development are inseparable from the support of computers, and also improve the data processing skills. Combined with the status quo, computer software technology can deeply process and analyze data, improve accuracy, facilitate operation, and promote enterprise development and improve work efficiency.

3. Current status of computer software technology

At this stage, China's computer software technology level has been in a state of rapid development. Computer software technology is used frequently in many fields. The advantage is that it can build a database and data storage system, which is convenient for users to better apply. In recent years, the space for the development of the cloud era is also very large. People from all walks of life are very concerned about big data. Based on the data data in the era of big data, there are many data sources that can be combined with computer software technology to further solve such data. In addition, for the efficiency of Internet operations, its speed and data increase trend is relatively fast. According to the results compiled in recent days, the amount of big data has exceeded the specified range, and the system is still relatively complete in this process. In the era of big data, the scientific application of computer software technology can fundamentally increase social and enterprise benefits, deepen the reform of cloud computing and the Internet of Things, and promote social progress and development.

4. The significance of computer software technology in the era of big data

Nowadays, the total economic structure of the society is in a transitional stage. Compared with the traditional production mode, computer software technology integrates new production models, improves production efficiency and increases social benefits. Social and economic development is inseparable from the promotion and support of computer software technology. In this regard, in the daily production and operation stages of commercial areas and production areas, how to use computer software technology scientifically is the core issue for enterprises to maintain their position in the market competition. In addition, based on the big data environment, computer software technology is frequently used in various regions and is highly valued. According to the survey data of relevant departments, the total amount of data in the global database is 1.8ZB, and the total amount of data allocated to individuals is about 200GB. The data source is researched, discussed and extracted

by computer software technology, and the hidden important trade secrets and information data are calculated. The development goals and trends of various industries are clarified, the economic development process of commercial regions and regions is accelerated to some extent, and promote social productivity to a new wave.

5. Application types of computer software technology in the age of big data

5.1. Virtualization technology

Virtualization technology is often used in resource management. The key content of resource management is to strengthen the management of virtual information. During this period, big data technology can be used to reduce the information processing speed and facilitate users' more convenient application. Since 2015, virtualization technology has become more and more popular in the era of big data, and it has become one of the core technologies of resource management technology, enabling most enterprises and companies to start deep research and analysis of virtualization technology. The economic and social development continues and the overall situation is stable, and the digitalization process has been integrated into the development stages of various cities. In the construction of the future urban development model, virtual technology and computer technology can be used to integrate the two, which can strengthen the city management to some extent and do a good job in planning.

5.2. Cloud Storage Technology

Several storage systems constitute a cloud storage system, and the connections between the storage functions in the cloud storage system are very close, so that they work closely together and mutually beneficial. For example, applying intelligence and automation to storage management can more easily and quickly distinguish integrated data resources, and finally expose the complete storage space to everyone. Based on the big data environment, the rational application of cloud storage technology can quickly integrate data information, strengthen management, further improve work quality and efficiency, reduce cost investment, and save resources. This will promote cloud storage technology in big data environment.

5.3. Information Security Technology

In the traditional case, the correlation between data and data is very strong. In this process, data and data will interfere with each other, and the impact will be uneven. This will greatly reduce data security and increase security risks. Probability, so the data system should be properly controlled to provide data security. Nowadays, the big data platform is in an open state, and the development of the Internet industry is flourishing. The Internet brings convenience to people's lives and also

increases security risks. Most Trojan viruses connect to the network frequently, increasing data sharing and analyzing risks. Therefore, based on the era of big data, the use of information security technology should be improved to fundamentally improve data storage security and analysis reliability.

6. The specific application of computer software technology in the era of big data

6.1. Commercial operation

At present, the commercial operation of computer software technology has been further promoted and applied. It is very popular in the era of big data. The scientific use of computer software technology can greatly stimulate the enthusiasm of employees, improve work efficiency and quality, and at the same time it is better to allocate business positions so that employees can know their own work content, which will promote the operation and development of the company. The steady improvement of the modern economy has limited the development of enterprises and made them face enormous challenges. If major enterprises want to enhance their competitiveness in an increasingly fierce market, they must fundamentally strengthen their service skills and improve their quality. The application and help of computer software technology, so expand the use of computer software technology, scientific application, which is very important to improve the competitiveness of enterprises. Nowadays, the network is very developed. Everyone is starting to buy things on the Internet. How to research and organize according to the information of the products browsed by the users and the information of the products purchased before, explore the valuable news, and then familiarize them with the consumption methods and preferences of the users. In turn, providing users with quality services to improve satisfaction and seize opportunities in the competitive trend is the current problem in the business operation of the big data era.

6.2. Information digital teaching

The education industry in any country has always been a concern, and it is an important factor in the rise of a country. The promotion and use of computer software technology plays a decisive role in education. At present, more and more countries are beginning to apply information digital multimedia teaching. Compared with the traditional teaching mode, information digital multimedia teaching is not bound by space and time. As long as the students connected to the network can learn new knowledge at any time, it promotes online. Education development. At the same time, the scientific use of computer software technology in the teaching process can stimulate students' enthusiasm for learning, which is extremely important for cultivating students' hobbies. Using computer software technology, the more ABSTRACT content in the textbook can be presented to students with a simple image, so that students can better accept knowledge and understand knowledge, and improve students' learning efficiency. Under the class, teachers can

use computer software to make small videos of knowledge in advance and bring them to the classroom to explain to students. This will enable students to better understand the knowledge points. In addition, teachers can use the online answering software to allow students to complete their own tests and organize the students' answers. This will not only enable students to master the learning situation, but also enable teachers to understand the mastery of the students and facilitate them in the later teaching, which has a huge impetus to the development of education.

6.3. Business communication

The continuous development of computer software technology has promoted the development of commercial communication to a certain extent. It can be operated by IBM SPSS software in the forecasting and research stage, thus ensuring the accuracy and reliability of various commercial information and avoiding the loss of information data. At the same time, XO technology can be used to more accurately grasp the behavior of residents, so that problems can be quickly detected and discovered during the development stage of the enterprise, so as to develop practical solutions. Under normal circumstances, the development and innovation of communication technology is closely related to the use of computer software technology. Mobile companies, China Unicom, and telecommunications companies are the most well-known communication companies in China. At the development stage of communication technology, technicians can use big data to explore new computer software technologies to summarize and study user consumption information data, and clearly grasp user consumption preferences, combined with the query data information to classify and locate users, to lay a solid foundation for the development and implementation of post-work, to maximize benefits.

6.4. Company information solution application

Any company will have a variety of problems and challenges during the development stage. For example, under normal circumstances, personnel turnover, risk issues, user information disclosure, illegal Internet sales, extortion, etc. must be handled through computer software technology. The arrival of the era of big data is convenient for enterprises to quickly collect data information and complete tasks efficiently. With the help of big data, the data collection of enterprise computer software can be divided into two parts: First, complete the data sampling task. The detailed work is to select some representative product data information in the past products, and then organize and analyze the data information. When sorting and statistical analysis of data, it is necessary to ensure the accuracy and representativeness of the selected data, and it has strong operability. The purpose of doing so is to better analyze and master the data, when the enterprise has operational problems. Solutions and measures can be explored in the first place. Second, develop and discuss data information. When researching and discussing data information, you can clearly see the information of employees and users inside the

company, and then develop accurate and reliable strategies and solutions for the long-term development of the company.

7. Computer software technology development direction and prospects

7.1. Development direction

First of all, the direction of intelligent development. With the continuous deepening of reform and opening up and the vigorous development of social economy, the living standards of residents have improved remarkably, economic income has continued to grow rapidly, and the quality of life has been greatly improved. Faced with this situation, people are increasingly strict with the promotion and popularization of computer software. The innovation and development of technology is inseparable from the help and support of mechanical intelligence, and now it has gradually become the main direction of the development of computer software technology. Compared with the computer software development technology environment, the artificial intelligence is penetrated in the human thinking operation mode, and its remarkable feature is intelligence.

Second, the direction of service development. The main purpose of computer software development technology is to meet all the requirements of customers. In the new era, people are more and more admired for individualized development, and their subjective consciousness is getting stronger and stronger. Therefore, it is necessary to increase technological innovation, enhance customer experience, create network supply models and network software to provide high quality platform for computer software technology development. Under the premise of network development, we will vigorously develop technology to demonstrate our service advantages, scientifically use various technical methods, and integrate humanized features into the customer experience to meet customer requirements as much as possible.

Finally, the direction of network development. Promote breakthroughs in core technologies in the information field and give play to the leading role of informatization in economic and social development. Internet technology dominates the field of information technology and accelerates the development of network information. In the initial stage of work, networked office is its core mode and method. According to the actual situation and development level of the country, it should be comprehensively analyzed and considered to meet the substantive requirements of users as much as possible. The purpose of this is to provide users with efficient information services. Computer software technology has been gradually reformed by the influence of network features, and it has also achieved great results.

7.2. Development prospects

Whether it is daily life, daily work or production and processing, it is inseparable from the help and support of computer software technology. It can be seen that computer software technology has made considerable contributions to society and enterprises. In this development of modern civilization, computer software technology is its soul and an important product. The development and operation of Chinese enterprises are all due to the realization of information resources sharing and interactive communication goals in economic globalization, thus expanding the development space and making Chinese enterprises more modern and international.

On the other hand, modern social information communication plays an important role in people's work and life. Therefore, in the future development stage, software technology should keep up with the trend of the times, develop and progress together with computer software and digital information, and improve people's lives quality in all aspects. With the rapid development of computer software technology, the development prospect of intelligentization has gradually become the most popular development direction, and further realizes the service and intelligence of software products. Therefore, the development prospect of computer software technology is considerable.

8. Conclusion

In summary, a new era of big data is coming to us, and all kinds of new technologies are changing with each passing day, speeding up the update of data information. Computer software technology is frequently used in various fields, such as data collection, data sorting, data storage, and data management. Major enterprises rely on computer software technology to improve operational models and improve operational efficiency and economic returns. With the increasing amount of data resources in the era of big data, the value of computer software technology has become more and more obvious, playing a decisive role in people's work and life and providing them with quality services.

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