Research on the Application of Computer Remote Network Communication Technology under Big Data Technology

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Abstract: With the development of the times, social progress, the continuous improvement of human science and technology and cultural level, more and more high-tech science and technology are constantly applied in daily production and life, big data technology as one of the many high-tech is also accepted by people. In the era of big data, massive data can be accurately processed through the analysis of big data technology, which has great benefits for the development of some industries. In the current era of big data, there are still many problems in the development of China's computer remote network communication technology. In order to deal with the difficulties faced by the current computer remote network communication technology in China, this paper puts forward the method of integrating big data technology with computer remote network communication technology, so as to provide powerful help for China's computer remote network communication technology. The real-time transmission and analysis information of computer remote network communication technology is the trend of future development, and it must be analyzed and studied accurately. It is found that the method proposed in this paper is of great significance to promote the development of computer remote network communication technology.

Keywords: Big Data Technology, Communication Technology, Remote Network, Science and Technology

1. Introduction

The policy system for the development of big data technology [1-2] is an integrated, hierarchical and structural system. The era of big data has brought a lot of convenience to people's life and work, and
also has a certain impact on the development of computer. The era of big data puts forward higher requirements for computer remote network communication. Therefore, in order to achieve better development of computer in the era of big data. It is necessary to carry out technological innovation to ensure that computer remote network communication technology can give full play to its role and value and provide security for people's life. Therefore, this paper will focus on the corresponding content of the transformation of computer remote network communication technology in the era of big data.

With the continuous development of modern communication technology [3-5], network has become an indispensable part of people's daily life. As an important tool, remote network communication technology plays an important role in the process of information transmission and sharing between departments and regions. In the process of global information development in the future, the instantaneity of informatization and technology will gradually become the main development trend. Therefore, people can make full use of the instantaneity of remote network communication technology to quickly complete the real-time data transmission and information data exchange of information and data [6-8]. This paper briefly introduces the main basic principles, advantages and main technical applications of remote network communication equipment and technology in various communication industries, which provides relevant basis for the research and promotion of the rapid development and application of mobile computer remote network communication equipment and technology in China.

This paper mainly studies the application of computer remote network [9-10] communication technology under the big data technology. In the current era of rapid development of science and technology, China's computer remote network communication technology is facing many difficulties and development opportunities. In order to help China's computer remote network communication technology to better comply with the development trend of the times, seize the development of the times In this paper, we put forward the method of integrating big data technology with computer remote network communication technology. Through big data technology, we analyze and study a series of data in computer remote network communication technology, so as to provide ideas for the development of computer remote network communication technology. Through the analysis, it is found that the method proposed in this paper is of great significance to promote the development of computer remote network communication technology.

2. Application Method of Computer Remote Network Communication Technology under Big Data Technology

2.1 Big Data Technology

Big data technology cannot collect massive data without the Internet and micro computing equipment; in addition, big data technology needs to use distributed architecture for computing, which is also inseparable from the distributed processing, distributed database, cloud storage and virtualization technology in cloud computing. The development of big data technology needs to obtain a large number of samples of almost all kinds of big data sets. Without this big data set, data mining and analysis cannot be carried out. The reason why such a large data set can be generated is because of the widespread presence of sensors and microprocessors. In addition, without the support of distributed
processing, distributed database, cloud storage and virtualization technology of cloud computing, it is impossible to store, analyze and calculate large data sets. Therefore, "the emergence of sensors, microprocessors and cloud computing related technologies provides the necessary material and technical conditions for the generation of big data technology."

2.2 Computer Remote Network Communication Technology

In computer system, connection and access technology is an important link to support computer operation and ensure the function of computer system. From the perspective of big data background, the so-called data refers to the expression and presentation of the concrete substance in reality in the form of data with significant symbolic characteristics. This kind of presentation can make the original abstract system information more intuitive and easier to experience, and easier to be understood and accepted by the audience. The types and forms of specific data information include digital information, text information, picture information and audio information. In the computer system, these transformed data information can be stored and called.

3. Experimental Correlation Analysis

3.1 Experimental Background

After obtaining a month's data of mobile communication network complaints, mobile communication user service data and mobile communication network index data, there is a data base for establishing association analysis model. These data are allocated and associated with network coverage, network reservation, network access, call quality and resources. Combined with user complaint data, complaint user geographic location information and user business usage, a network complaint analysis model based on association rules is established.

3.2 Experimental Design

Based on the comprehensive complaint volume and network data of a certain region in a month, this paper obtains the distribution of network problems with low scores in the evaluation of network complaints in a certain month. The specific contents are shown in Table 1:

| KQI          | KPI            | score | KQI          | KPI                | score |
|--------------|----------------|-------|--------------|-------------------|-------|
| Network coverage | Uplink coverage | 5.23  | Network coverage | SDCCH allocation success rate | 9.46  |
|               | Downlink coverage | 6.32  |              | TCH allocation success rate | 7.63  |
|              | Summary score   | 5.45  |              | Summary score     | 8.63  |
| Network access          | SDCCH congestion rate | 4.65 | TCH congestion rate | 6.53 | Network persistence | 5.65 | TCH drop rate | 7.63 |
|------------------------|-----------------------|------|---------------------|------|---------------------|------|---------------|------|
| Call quality           | Uplink traffic ratio with poor quality | 7.23 |                      |      | Call quality        |      | Half rate ratio | 3.32 |
|                        | Downlink traffic ratio with poor quality | 7.34 |                      |      | Summary score       | 5.95 |               |      |

4. Discussion

4.1 Application Analysis of Computer Remote Network Communication Technology under Big Data Technology

Through comprehensive analysis and problem positioning, user complaint content, user geographic location, user business type and background key data, a group of related system is formed, corresponding intervals are separated, and a period of complaints are clustered, and optimization scheme is formulated for batch processing. For example, it aims at a complaint problem, relevant background information and network alarm situation, as well as user business content analysis. It uses drawing inference to solve similar complaint problems from an example in the shortest time, thus saving the energy and time of mobile communication network optimization personnel. In order to verify the complaint optimization scheme based on association rules, the voice complaints of a regional GSM network within one month are divided into local grids, and the network complaints and evaluation results are analyzed. The results are shown in Figure 1:
As shown in Figure 1, there are 100 complaints at 1-10 with an average score of 6.99, 70 complaints at 11-20 with an average score of 6.85, 50 complaints at 21-30 with an average score of 6.63, 30 complaints at 31-40 with an average score of 6.42, and 21 complaints at 41 max with an average score of 6.32. Therefore, the mobile communication network symbol of a certain area is provided. If there are many complaints, the evaluation score is low, which shows that the complaint optimization system of association rules is reasonable.

How to analyze and locate a large number of network complaints is an urgent problem for existing network optimization personnel. In the monthly mobile communication network complaints, through background data analysis and network optimization personnel positioning, door-to-door customer return visit, dtcqt test and other work, the causes of mobile communication network complaints can be roughly divided into network reasons, non-network reasons and other reasons. The mobile communication network in a certain area is divided into several grids. Through the analysis of the above association rules, the distribution of evaluation score intervals of these grids is shown in the following figure:
According to the situation shown in Figure 2, most of the complaints scores in this region are concentrated in the range of 5-6, and the proportion of 7-10 is relatively the lowest, which indicates that the user's satisfaction with the remote network condition in the region is still relatively low, and it is still necessary to optimize the network condition in the region. Through big data technology, the content of complaints, the geographical location of complaints and some business types of users are analyzed and processed, so as to formulate the optimal scheme to deal with these problems, so as to lay a good foundation for the application of computer remote network communication technology.

4.2 Suggestions on the Application and Development of Computer Remote Network Communication Technology under Big Data Technology

Under the background of big data era, computer remote network communication technology has its own technical advantages, the specific content is reflected in: computer remote network communication technology has a strong anti-interference ability, because in today's background of big data era, a large amount of data information will be generated every day, requiring the computer to transmit a large amount of data. Only by ensuring that the transmission process is not interfered by other factors, the security of data information can be guaranteed and the data information can be better utilized. Ensure the authenticity and validity of data, and avoid the distortion of data in the process of storage and transmission. 5g data transmission technology has begun to appear. Computer remote wireless network and communication data transmission technology can be organically combined with 5g data transmission technology. In addition, it can also be compatible with different mobile Internet devices and various wireless network devices, so as to ensure the safety of data transmission and work.

In the process of computer remote network communication, in order to improve the communication efficiency, it is necessary to keep the communication channel unblocked. Among them,
communication channel refers to the line of communication transmission. The common communication lines in real life mainly include coaxial cable and symmetrical cable. There are a lot of insulating materials in the external structure of symmetrical cable, which makes the signal free from the interference of other external factors in the transmission process. Coaxial cable has very strong sealing characteristics, and the cable is composed of various external conductors, which can effectively prevent the interference of external electromagnetic field and make communication and communication transmission speed very fast.

Computer remote network communication technology is an indispensable key in people's daily life in the era of big data. The speed of remote network communication is the key factor that affects the level of network service. In some public places, the network may be too slow, which may lead to serious data delay in the process of network data transmission. In addition, in the application of remote network communication technology, there will be packet loss, which is caused by network load. Take QQ chat software in the era of big data as an example, it is an important application of computer remote network communication technology. Using this technology, QQ video chat can be realized effectively. Due to the stability of remote network and the delay of communication speed, users may have a specific process of watching video or chatting. The images and audio in the video are completely static and the voice is not clear enough. These stability problems are caused by the delay of remote network communication. The stability of remote network and the speed and delay of communication are the main factors that directly affect a user's experience of the network, people's behavior and daily life.

With the continuous development of information technology, people pay more and more attention to the network security under the background of big data. Due to a large number of data to be sent out from the network, there will be inevitable data loss in the transmission process. Some people use malicious code to illegally steal and sell this personal information. According to the author's investigation, the security problems caused by the application of remote network and information communication network technology mainly include the following points. First of all, the network security awareness of users is relatively weak. In this era of big data development, network database has a large amount of information and complex content. When users choose the technology of remote information communication network, they are easy to receive some dangerous websites or dangerous files in the computer. For example, some dangerous websites may pop up automatically when users first browse dangerous web pages. Once you click, there will be virus invasion and user information will be stolen. The second is the problem of software and hardware. Because the computer mainly consists of software and hardware, if there is a problem in these two parts, it is easy to lose the relevant data, and the loss of data will also bring certain economic losses to users, which is not conducive to the security of the whole network communication.

In short, with the development of China's communication technology, people's use of computer remote network communication technology has spread to all aspects of their life and work. Computer communication technology not only brings great convenience to people's life, but also makes people's life more colorful. However, the computer remote network communication technology is still competitive in the current competitive environment of science and technology market, at the same time, the technology also has some defects. Therefore, it is necessary to carry out in-depth technical research and innovation on the science and technology industry, understand the basic composition of
the technology, and constantly in-depth exploration and improvement, so that China's communication technology can be more long-term development.

5. Conclusions

This paper mainly introduces the application and development of computer remote network communication technology under the big data technology. In the current era of rapid development of science and technology, any industry needs to adapt to its own characteristics and the needs of the times. The application of computer remote network communication technology in people's daily production and life is more and more extensive, which is basically closely related to everyone's life. Therefore, the development of the application of computer remote network communication technology is the theme of the future era. In order to meet the development needs of the new era, this paper proposes the integration of big data technology and computer remote network communication technology Methods, in order to provide ideas for the development of computer remote network communication technology. Through the analysis and research, the method proposed in this paper is of great significance to promote the development of computer remote network communication technology.

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