

Recent Applications of Artificial Intelligence in Computer Network Considering Big Data Methods

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Abstract: Recent applications of artificial intelligence in computer network considering big data methods is studied in this research. The development of computer network technology has also been better developed and used globally because of its high performance and many development advantages. The biggest advantage of artificial intelligence technology is to be able to dig and analyze data better, to be able to analyze different users finely, so as to better assist in decision-making. Therefore, this paper discusses the novel suggestions for the AI based model.

Keywords: Big data methods, recent applications, artificial intelligence, computer network

1. INTRODUCTION

In the actual application of computer network technology, information technology can then provide a convenient basis for industrial transformation and upgrading. The effective combination of general data mining technology and artificial intelligence technology is an important trend in the future development of computer network technology.

The biggest advantage of artificial intelligence technology is to be able to dig and analyze data better, to be able to analyze different users finely, so as to better assist in decision-making. According to the review, the focuses of the AI has the 2 core features for referring.

(1) The use of artificial intelligence technology can ensure the security of computer operations. It is also possible to manage the Internet computer network environment and also regularly maintain the network security system to further improve the application rate of computer network technology and Problem solving ability.

(2) At present, artificial intelligence technology can already be seen in people's daily life. For example, artificial intelligence technology emerging in the knowledge transfer and intelligent language. We can use artificial intelligence technology to simulate routine and further process-oriented operation and maintenance tasks to achieve structured management of the management and other issues.

Artificial intelligence technology can transform a single point of information into multiple pieces of information, ensuring that the acquired data information is true and effective, and can also enhance information analysis capabilities, and then, the figure 1 shows the big data methods and in the following sections, the details of applications of artificial intelligence in computer network considering big data methods will be considered in detail.

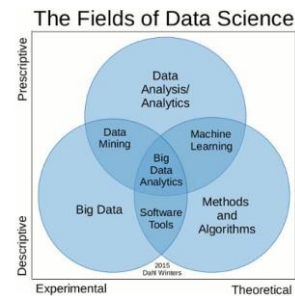


Figure. 1 The Big Data Methods (Source URL: <https://www.zarantech.com/blog/can-differentiate-big-data-analytics-statistical-predictive-modelling-techniques/>)

2. THE PROPOSED METHODOLOGY

2.1 The Big Data Network Analysis

Computer network technology will generate a large amount of data information in the application process, and it will then consume a lot of labor and the time costs in the application process. Therefore, relevant managers need to further extract effective value information through systematic data mining analysis and integration, so as to apply it to the development of the industry. Speed in big data refers to the speed of generating data as well as the general speed of analyzing and processing data. The demand for the smart mobile devices has increased greatly in the information age, and the information flow is increasing at a faster rate, which simultaneously makes big data real-time analysis and planning technologies more popular. For the big data scenario, the security concerns will be essential. In the era of big data, the application of artificial intelligence can further improve the management level of the computer network information security.

In the manual technology application process, technicians can building computer firewalls and anti-spam system to reduce the leakage of information. Although although many network security mechanisms have been established to make people a better network experience, the computer network systems still suffer from user information leakage with network systems still have the problem of user information leakage. Then, we should consider the 3 major aspects shown as the table 1.

Table 1. The Computer Security Issues

Issue	Details
Risk Prediction Based on Big Data	Predictive analytics is the technique of predicting future outcomes based on historical and currently updated data.
Openness of the Network	During the open use of the network, TCP/IP protocol in the Internet environment, it is difficult to reflect its own security, data information processing functions appear a certain lack, increasing the uncertainty of network information security.
System Vulnerabilities	It is common for people to use patch fixes to resolve system vulnerabilities problems, until the relevant repair work is completed, the computer will face a more serious serious information security threats.

2.2 The Applications of Artificial Intelligence in Computer Network

Artificial intelligence technology includes expert decision-making methods, which can help the people effectively solve various problems they encounter in a short period of time when they use computer network technology. In the process of disposal, there will be mistakes in the length of complex operation and maintenance work, which will cause problems in the quality of operation and maintenance. Based on this situation, artificial intelligence technology can be used to then realize the operation and maintenance of the complex network management work. The main reason is that, on the one hand, artificial intelligence technology can further quickly classify information and avoid problems caused by human operations; on the other hand, it can also improve the overall quality of the system management. Artificial intelligence technology can use computers to perform calculations to analyze and process network information data.

Because of the high accuracy of its calculation results, it can greatly prevent unnecessary consumption of the manpower, material resources and financial resources. The application of artificial intelligence technology to computer network system evaluation is more intelligent to help users solve some common technical problems, and it can make good detection of computer systems, assess the status of the computer system operation, and also better inform users of the corresponding operations.

3. CONCLUSION

Recent applications of the artificial intelligence in computer network consider big data methods is studied in this research. Artificial intelligence technology can provide more intelligent algorithms and service technologies, effectively solve various problems in computer networks, and improve the quality and efficiency of the computer network operations. Through the in-depth analysis, the applications are discussed.

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