

Research on Application of Artificial Intelligence in Computer Network Technology

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Abstract: With the continuous development and innovation of current information technology, computer network technology has been widely used in people's production and life. In recent years, compared with computer network technology, artificial intelligence technology has a larger application prospect. Therefore, people are trying to apply artificial intelligence to computer network technology, thus bringing new possibilities to the development of computer network information technology and effectively improving people's production and living standards. This paper briefly introduces the application advantages of artificial intelligence technology in computer network technology, at the same time, it carries out relevant research for its specific application, hoping to be helpful to the application of artificial intelligence technology in computer network technology.

Keywords: Artificial intelligence; Computer network technology; Advantages and applications

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1. Introduction

As people pay more attention to artificial intelligence technology, it has great application prospect and space in enterprise production line management, service industry, science and technology enterprises and modern home. Especially for the continuous development and application of computer network information technology in China, the combination of artificial intelligence technology and computer network technology has become the mainstream trend of current development. And with the arrival of big data era, the development of society is becoming more intelligent and data-based. Therefore, the application of artificial intelligence technology has a very necessary trend and must be paid enough attention to, to meet the needs of social development.

2. Application Advantages of Artificial Intelligence Technology

(1) Effective processing of information

It plays an important role in improving the security of computer network operation and strengthening network monitoring and management. In computer network management, artificial intelligence technology is combined to improve the security of system operation and make the system more stable. Because the network system of the computer has the transient characteristic, the data processing can be realized through the artificial intelligence technology. It is difficult to process the uncertain data through the computer network system. Using the fuzzy logic operation mode of the artificial intelligence can analyze some fuzzy data, which can effectively control uncertain information in the network and make the use of computer network more efficient.

(2) Efficient network management

Artificial intelligence not only has the function of strengthening information collection and statistical analysis,
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but also has the function of strong information reserve. It can effectively store and manage the data such as possible problems and corresponding solutions during the operation of computer network technology. In the actual network management process, it can clearly use such management technology to carry out computer network management tasks. Artificial intelligence technology has played an effective role in it. Through multi-agent collaborative distribution thinking, it makes the communication of each management more efficient, and also makes the management of the network more effective.

(3) Less computing resources

With the rapid development of computer network technology, big data has become the current main trend. In order to make the data extraction more efficient, we need to use artificial intelligence technology. Because it requires a lot of resources and costs a lot to complete this work simply by using computer technology, the fuzzy control method of artificial intelligence technology can extract important data information in a short time, improve the data extraction efficiency through the data retrieval function, and at the same time satisfy people's data use requirements.

3. Practical Application of Artificial Intelligence in Computer Network Technology

(1) Application of data mining technology

Artificial intelligence will actively learn two aspects, one is the running state and characteristics of the system when the computer network is in a normal state; the other is the running state and characteristics of the system when the computer network is in an intrusion state. In this way, once the computer network is invaded, the data mining technology of artificial intelligence can effectively identify what kind of running state the current computer network is in and make evasive operations in time. This technology mainly uses the learning characteristics that artificial intelligence is different from other technologies. Using this technology in the security response means of computer network technology can ensure that the computer can achieve good results in its own detection. This technology is mainly used in the intrusion detection of computer network. The main principle is to establish a database of relevant aspects for the staff, and then add the reasoning mechanism of their own empirical construction. At the same time, some relevant behaviors with records are coded to achieve certain fixed detection regulations. When the conditions are met, the expert system can judge according to the database, find the intrusion behavior in time and intercept it. Because of its regularity, the expert system has fast detection speed and high efficiency, but its range is narrow and it can only judge the virus types that already exist in the database.

(2) Processing of network data and information

In the application process of artificial intelligence technology, big data information technology also brings more possibilities to library management. It can effectively realize the discrimination and automatic intelligent processing of library resource data. Compared with traditional staff, it is more efficient. Teachers can extract relevant materials in the teaching process, use different information more accurately, and help students to better grasp information and data. Students can also choose resources through the relevant website. To a certain extent, this also reflects the advantages of artificial intelligence technology in the processing of network data and information. For example, in the process of building students' personal information, students' information can be entered in a unified way to complete the preliminary examination, and some problem information can be fed back by artificial intelligence, which greatly reduces the workload of the staff to a certain extent.

(3) Network technology application security management

Building intelligent firewall is an effective application of artificial intelligence in computer network technology. Artificial intelligence can help the computer to form an identification system, so that the computer can identify

and design the original technology application, thus helping the computer to detect the incoming and outgoing data and intercept the bad data in time. The effective application of artificial intelligence in the computer network can greatly help the computer to improve the safety factor, effectively intercept some risky web pages or data, and ensure the safety in the transmission of computer network technology. Sometimes, when we browse the web, we often pop up some rubbish nets. In the application of network computer technology under the artificial intelligence environment, we realize the management of spam interception in the application of technology. The artificial intelligence can carry out deep-seated screening on the basis of identifying rubbish web pages or junk mails, and filter out the mails with risks. Most importantly, the effective application of artificial intelligence in computer network can provide an intrusion detection system for people. When our computer has virus invasion, some anti-virus software may not be able to achieve effective anti-virus and cause virus legacy, while artificial intelligence can help computing to achieve deep-seated anti-virus and purify the computer application environment.

(4) Software and hardware upgrade development

With the continuous progress of social development, people's demand for the application of computer network technology is increasing. In order to better promote the use of computer network technology to meet people's needs, we must comprehensively carry out the innovation and upgrading mode of computer network technology. At present, the computer network is an open platform. Many talents with strong innovation consciousness and creativity continue to develop more characteristic network technology applications based on Internet technology, which brings great influence to the maintenance of the application of computer Internet technology. Therefore, it is necessary to make full use of artificial intelligence technology to promote the upgrading of software and hardware of computer network, so that artificial intelligence technology has more advantages in the optimization and upgrading of software and hardware system. The efficiency of software and hardware applications in computer network can be verified through the use requirements, sensitivity tests, effectiveness tests and the like of users in computer network. Aiming at various problems existing in software and hardware operation, we can put forward a specific solution, create the software and hardware system around the scheme, and promote the operation of the software and hardware system to be more efficient through parameter adjustment, system design, parameter setting, and so on, so as to realize the strong development and upgrading of the software and hardware system, and ensure that the software and hardware system has always been in the innovative mode.

(5) Application in network resource sharing

Under the environment of big data information technology, the application of various new technical means has also accelerated the dissemination and sharing of resources, which plays a particularly critical role in library management. In the process of resource dissemination and sharing, artificial intelligence technology can realize the effective positioning of resources, and then present resources to users according to the needs of different users, while ensuring the security and accuracy of resource dissemination. For example, the P2P model in library management can retrieve, classify and search all kinds of network resources, and the resources involved are more extensive. The use of artificial intelligence technology can realize the search of effective information and data, ensure that the searched resource data can meet the needs of users, at the same time, it can also improve the utilization rate and download rate of resources, and improve the transmission and sharing level of resources.

(6) Application of artificial intelligence resource retrieval system technology

In order to effectively ensure the reasonable application of network information and communication technology, it is inevitable to carry out regular inspections on the whole system so as to find out the internal problems and repair them. The effective application of intelligent system can realize the collection of a large amount of data, thus satisfying the retrieval and retrieval in the subsequent work and truly realizing the effective evaluation of the entire network retrieval system. At present, artificial intelligence technology has been introduced into the library

management in many areas in China. By classifying and summarizing the relevant data in the library, the system can be effectively used, the utilization rate and pertinence of resources can be improved, and the data search can be more efficient and convenient. In addition, the use of information computer technology can effectively retrieve the internal resources of the library, which mainly includes the relevant positions and storage states of books, thus enabling users to have a clearer and clearer understanding of library resources. When borrowing books and other resources, the book codes can be entered into the computer system and summarized into personal accounts in real time, thus avoiding differences in book management and improving the management efficiency of the library.

4. Conclusion

In conclusion, with the continuous development and innovation of the era of big data, strengthening the application of artificial intelligence technology in computer network information technology has gradually become an inevitable development trend, which is of great help to people's production and life. The reasonable application of artificial intelligence technology can improve the application efficiency of computer network information technology, effectively solve various problems in the current application process of computer information technology, and further continuously promote the application of artificial intelligence network computer technology, bringing more possibilities for people's lives. Therefore, the relevant staff must pay attention to it and increase the exploration of the application of artificial intelligence technology in computer network information technology.

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