The Practical Application of Artificial Intelligence Technology with the Development of Internet

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Abstract. Artificial intelligence is closely related to people's life and production. With the rapid development of science and technology, people tend to quest for higher requirements for material life. The Internet and related information technology industries provide possibilities for artificial intelligence and have stepped toward the field of intelligence. This paper analyzes the characteristics of network engineering and discusses the application and innovation of artificial intelligence technology.

Keywords: Computer, Network Technology, Artificial Intelligence, Technological Innovation

1. The Analysis of the Characteristics of Modern Artificial Intelligence
The Internet and information technology have profoundly changed people's life and learning styles. The application of artificial intelligence technology allows people to analyze the characteristics and regularize the query based on a large amount of data. Artificial intelligence can bring people a highly efficient work mode, but technology can also bring challenges. Only by fully understanding the characteristics of artificial intelligence technology, can we propose coping strategies to the challenges [1].

The rapid development of the Internet decides that social production is bound to produce a great deal of network data. It is difficult for human beings to effectively receive and process all the data analysis, whereas artificial intelligence technology can analyze and process the operation of technology, mine the corresponding data value based on personalized needs, and lay a solid foundation for later decision-making and information management. The traditional analysis is mostly done on paper, including text and data information, etc. And with the diversified economy, artificial intelligence in the video, audio, text, and data structure has been developing simultaneously, bringing difficulty to the acquisition and collation of information. However, the technical characteristics of artificial intelligence can observe information data collection and aggregate information from various sources, which is time-efficient. Secondly, the collection of information through artificial intelligence technology breaks the traditional classification mode and can categorize web pages, pictures, videos, texts, etc., making the information collection and collation form richer. Finally, artificial intelligence technology can organize and excavate the information with a potential value according to users’ needs and hence improve the efficiency of information utilization [2].
2. The Development Trend of Artificial Intelligence in the Network Era

Artificial intelligence technology has an important role in network engineering, but it must complete a comprehensive program design because the technology still relies on human operators to a certain degree. But with the rapid development of science and technology, intelligent technology has made important breakthroughs in many fields and helped the promotion of network engineering. Intelligent technology, which simulates human brains to complete tasks, mainly relies on computers to operate the process of network engineering, including judgment and control. Therefore, intelligent technology represents the future development of network engineering for that it cannot only effectively reduce the cost of human resources, but also achieve multi-threaded simultaneous operations and eliminate human error. Artificial intelligence has the ability to examine the technical information of the equipment promptly and to provide early warning by distinguishing information feedbacks, which empowers network engineering to be more productive and more convenient in terms of the overall management [3].

With the development of science and technology, the work involved in network engineering has become very complicated. Intelligent technology can imitate human thinking, make accurate judgments and tests, and conduct real-time monitoring of the operation [4]. Traditional manual control requires a high degree of concentration of the human brain, but it is difficult to ensure that the attention of the human brain can remain focused holistically. In contrast, the computer mode of operation has the advantage of adapting to a variety of complex working environments, and implementing intelligent monitoring of the entire network. In addition, intelligent technology will be implemented with strict standards that ensure accuracy. It also reduces the heavy workload of human work, effectively improve the efficiency and quality of work, so that information manipulation can become more accurate and convenient.

3. The Practice of Artificial Intelligence in the Development of the Internet

3.1. Build A Scientific Network Inspection System

While the network and the automation of engineering have become more and more refined, various problems will inevitably appear during the operation. Network enterprises are usually equipped with professional overhaul teams to inspect and repair network equipment, lines, etc., and carry out periodic fault detection and maintenance [5]. But it is difficult to maintain efficiency since it usually needs to troubleshoot the entire system to find out the problem, which often turns out to lay on a small component. This mode of operation makes it difficult to find the fault point in a short time, which makes artificial intelligence technology become a better choice for networks and the automation of engineering. The system architecture is built in the preliminary process, and the computerized intelligent system is used to check all aspects of network engineering, wiring, equipment, etc., which avoids the lag of human resources. Artificial intelligence can quickly find the fault point or fault area of the equipment and provide the corresponding maintenance advice, which saves a lot of time and energy. It also has a very positive effect on improving the efficiency of business management [6].

3.2. Improve the Level of Network Intelligence

The control of artificial intelligence represents the development trend in network engineering in the future. It can automatically allocate and control the production or operation process and execute it in strict accordance based on the system standards, fully meeting the needs of the automation of the network, while reducing the human operation error rate. First of all, intelligent control technology can meet the needs of network control of relevant equipment. Secondly, from the economic point of view, intelligent control saves human resources, improves work efficiency, and saves operating costs. Finally, electronic equipment, machinery, and portable devices have always been an important part of network engineering, but the adaptions of the two are different, which often yields improper work errors. Intelligent technology, however, can make the adaptions coherent and, therefore, realize the economy and technology of system operation, and ensure the intelligent conversion between
machinery and portable devices. Besides, during the control of intelligent technology in the network and the automation of engineering, more attention should be paid to the establishment of the central module of the partition to prevent the disconnections of the entire operation caused by one small damaged component. Intelligent control ensures the independent operation of the equipment and is structured in compartmentalized modules, making the network engineering department holistic [7].

3.3. The Development of Intelligent Technology in and the Automation of Engineering
To explore the application of artificial intelligence technology in network engineering, it is necessary to ensure the development of intelligent technology and the trend of mutual integration with network engineering on the right track. First of all, network engineering must develop in the direction of intensification under the wave of industrialization, so it is necessary to improve the efficiency as well as the accuracy of network engineering and realize the overall improvement of core performance [8]. With the consideration of its demand, intelligent technology should adopt high-performance detection components as well as dynamic and innovative technologies for efficient operation and innovation while meeting the development of networks and the automation of engineering. Second, the future of the network and the automation of engineering must be oriented to diversified development, so intelligent technology should obtain certain level of "flexibility" to achieve the dynamic adjustment of network engineering through the automation of CNC systems and group control systems for artificial intelligence design. Meanwhile, based on the analysis of the external conditions and operating environment, the system should be able to achieve efficiency, reflecting the value of the application of intelligent technology [9].

4. Enhance the Security Management Capabilities of Artificial Intelligence and Comprehensive Analysis
With the rapid development of the Internet industry, more and more information will be stored and transported through the Internet. In such a context, it is necessary to improve a comprehensive analysis as well as integration capability of artificial intelligence, conduct a scientific and comprehensive analysis according to the development of digitalization, and provide data support for information optimization. Therefore, it is necessary to change the traditional management model and focus on more information sources. With that being concerned, a comprehensive analysis of artificial intelligence will be provided to predict and control in advance, thereby improving the core competitiveness becomes important to the development of the industry. The database has become a decision-making factor for enterprises, so the information security management of data should be given full attention. Since the Internet is an open virtual platform, it is necessary to effectively control precious data, establish a scientific and feasible data security management system to prevent the core data from being stolen, improve the enterprise data security level, and minimize the probability of virus and hacker invasion problems. However, the development of data security management system should be managed based on reality, while the enforceability and convenience should never be ignored [10].

5. Conclusion
To sum up, with the rapid development of the Internet industry, people should seize the opportunities brought by artificial intelligence, face the challenges and make effective use of databases by improving the ability to conduct comprehensive data analysis and develop data security management system.

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Reference
[1] He, Guoqiang. “Exploring the Application of Artificial Intelligence Technology in Air Traffic
Management” Photographic Geography. No. 05 (2020).
[2] Li, Xiaopeng. “Introduction to the Artificial Intelligence Technology in Network Automation Control” Building Materials & Decoration, No. 01 (2020).
[3] Wang, Yan, and Shaoqing He. “Perseverance and Change: Modernizing Vocational Education in the Era of Artificial Intelligence 2.0” Adult Education 40, No. 01 (2020).
[4] Yu, Wenwen. “Attribution of Interests in Copyright Law for Artificial Intelligence-Generated Content”. No. 04 (2020).
[5] Zheng, Zhifeng. “Exploring the Challenges of Artificial Intelligence on Labor Law and Its Suggestions” Artificial Intelligence. No. 04 (2020).
[6] He, Guoqiang. “Exploring the Application of Artificial Intelligence Technology in Air Traffic Management” Photographic Geography. No. 05 (2020).
[7] Song Xiaoyu. "The Application of Artificial Intelligence Technology in the Development of Mobile Internet" Information Recording Materials, VOL21, No. 01 (2020).
[8] Liu Zhanbo. "The Application of Artificial Intelligence Technology in the Development of Mobile Internet" China New Telecommunications, VOL22, No. 11 (2020).
[9] Qu Ke. "The Application of Artificial Intelligence Technology in the Development of Mobile Internet" Modern Information Technology, VOL4, No. 3 (2020).
[10] Ma Xuefeng. "Research on the Development of Artificial Intelligence Industry" China CIO News, No. 11 (2019).