

The Application of Artificial Intelligence in Electronic Information Technology

Ting Nie, Zhijie Wu, Rongqing Hu, Hao Sun* and Yizhou Xiao

School of International Education, Nanchanghangkong University, Jiangxi, China

Abstract: With the continuous development of social productivity, AI (artificial intelligence) technology has gradually entered all aspects of people's lives, and has received widespread attention, becoming the future technology development trend. With the rapid development of the Internet and the increasing number of computers, the development of artificial intelligence is constantly changing people's cognition and gradually changing people's production and lifestyles. It is foreseeable that in the future, the further development of artificial intelligence will increase. The more it is used in electronic information technology, it greatly promotes the development of social productivity.

Keywords: AI, Electronic Information Technology, Application.

1. INTRODUCTION

The continuous development of social economy has promoted the progress of science and technology. AI technology is developing rapidly, and its application scope is becoming wider and wider, and people's acceptance of AI is also increasing. Similarly, AI is also an intersecting technology in multiple fields. The most critical technology is electronic information technology, which complements AI. As the current development trend, AI will continue to be combined with electronic information technology in the future application process, and jointly play its own advantages [1-5].

2. THE OVERVIEW OF AI

AI is an emerging technological discipline that studies and develops theories, methods, technologies and applications that are applied to simulate, extend and expand human intelligence. It is a branch of computer science. In 1941, the birth of computers revolutionized information storage and processing. At that time, computers were huge and required a lot of space for placement. In 1949, after the continuous improvement of computers, the input program was simplified. Computer theory also produced a new discipline-computer science in the process of continuous development, which laid the foundation for the emergence of AI and provided a viable medium. . It was not until the 1950s that people began to gradually notice the relationship between human intelligence and machines. At the end of 1955, NewellSimon developed a program called "Logic Expert", which is considered the first AI program. In 1957, the first version of the "Universal Problem Solving Machine" began testing. Two years later, IBM began to establish an AI research group. In 1963, MIT began to study machine-assisted recognition, which eventually accelerated the pace of AI research. In the long historical

development process, the advantages of AI technology continue to appear, and people are still conducting in-depth research on it until today.

3. THE CHARACTERISTICS OF AI

First of all, AI is a knowledge learning technology from artificial knowledge expression to big data-driven. AI is more pursuing the integration of humans and machines from intelligent machines to high-level, collaborative work. Second, AI is from focusing on individual intelligence to being based on the Internet and the group intelligence of big data can aggregate the intelligence of multiple people. Not only that, AI is shifting from anthropomorphic robots to broader intelligent systems. Under normal circumstances, there are generally three types of AI in the world, namely "weak AI", "strong AI" and "super AI". As a science that intersects multiple disciplines, AI covers a wide range and involves many fields. It also has diversified and precise technical characteristics. Generally, the central processing system makes the machine show human-like thinking and behavior. Thereby replacing humans to complete some tasks, greatly liberating human hands, and also expanding the scope of human activities.

4. THE ADVANTAGES OF AI

From the perspective of the development process of AI, its advantages are highlighted in all aspects. From the perspective of the application of electronic information technology, AI has played a huge role. The two complement each other and develop together. Its technical application advantages mainly reflect In the following aspects.

One is in information processing. The application of AI in electronic information technology realizes the processing and classification of location information, and scientific analysis based on big data. AI can efficiently and accurately process a large amount of fuzzy data, make up for the lack of electronic information technology in processing fuzzy information, and show complementary characteristics; The second is in learning ability. AI shows strong self-learning ability. The development of AI is based on imitating human behavior and human thinking. Learning is one of the main activities of human beings. AI has achieved maximum performance in this respect. After adding AI to electronic information technology, it can simulate human thinking mode to efficiently process data in electronic information technology, and then dig in-depth information, and realize the processing of information and data in a humanized thinking mode; The third is in cost resources. The combination of AI and electronic information technology can avoid waste of resources. On the one hand, AI can help electronic information technology to perform more precise calculations in a scientific way. In this way, a lot of calculation time can be saved, so as to achieve the purpose of saving cost and resources. On the other hand, the application of AI can ensure the validity of the calculation results of computer information technology to the greatest extent. The organic combination of the two aspects can better save costs and obtain accurate calculation results on this basis. This advantage is obtained widely recognized.

5. CHARACTERISTICS OF ELECTRONIC INFORMATION TECHNOLOGY

5.1 Digitization

Many high-end technologies have emerged in the application of electronic information technology, such as wireless communication technology, network resource sharing technology, big data collection technology, etc. These technologies can transform information into digital forms and achieve efficient storage. The application of digitalization and digitization has further expanded the scope of information storage, accelerated the speed of information transmission, and greatly increased the information capacity.

5.2 Automation

Electronic information technology is extensible, broadens the scope of human activities, and achieves effective integration with various fields. For example: the application of electronic information technology to machine tool processing to realize automated production. This application method greatly frees people's hands, and industrial automation changes have emerged, which improves productivity while improving production efficiency. For example: In heavy industrial production, electronic information technology can be used to perform heavy and dangerous work to protect human safety.

5.3 Intelligentization

The application of electronic information technology, by imitating human thinking mode and behavior mode, provides the possibility for humanization of system operation. For example: the use of electronic information technology in smart devices to realize the convenience of operation; the addition of functions such as fingerprint unlocking, voice assistant and face recognition to smart devices has improved the use efficiency of smart devices. In addition, in the process of building a smart library, it also reflects the intelligent characteristics of electronic information technology, such as the use of intelligent borrowing management to improve library operation efficiency. In addition, the application of electronic information technology to the logistics industry can realize the automatic sorting of express delivery, improve the efficiency of express sorting, and thus improve the overall logistics operation efficiency.

6. ADVANTAGES OF AI IN ELECTRONIC INFORMATION TECHNOLOGY

6.1 Realizing high-speed processing of information

One of the functions of AI is to realize the rapid processing of data with extremely high accuracy. Therefore, in the process of analyzing and processing information and data, the advantage of AI lies in It can achieve accurate information processing in the shortest time. When AI is not applied to electronic information technology, it is difficult for information technology to achieve efficient and accurate data processing, and the application of AI makes up for this shortcoming.

6.2 Strong learning ability

The learning ability of AI is that AI obtains a series of optimal parameters through the rules in the statistical data, and uses the function to maximize the fit of the existing data rules. In the process of continuous development of electronic information technology, there is a large amount of electronic data information. In order to develop and use these data information and concepts in a deeper level,

AI conducts in-depth analysis and research on data in this process. Data reasoning carries on higher-level research and promotion, which further improves the learning ability of electronic information technology.

6.3 Saving resources to the greatest extent

During the use and development of electronic information technology, it takes a lot of time to process massive amounts of data. If there are errors in the calculation process, it will take time to adjust the errors. The application of AI to electronic information technology can achieve rapid, efficient and accurate processing of massive data and information, effectively reducing computing costs, and achieving the goal of using the least resources to obtain maximum benefits.

7. ADVANTAGES OF AI IN ELECTRONIC INFORMATION TECHNOLOGY

7.1 Maintaining the security of network information

One of the main development manifestations of electronic information technology is the application of the Internet. In the process of using the Internet, due to many factors, network information security problems have appeared. Therefore, the application of AI in electronic information technology can play an important role in the security maintenance of electronic network information. Due to the development of electronic information technology, the amount of data increases rapidly in a short time. If there is no corresponding protection system, these Information will be threatened in many ways. The application of AI in electronic information technology can screen and process the security of various network information, accurately identify threatening information, and use precise classification to classify and sort different information for targeted defense. Not only reduces maintenance costs, but also greatly improves network information security.

7.2 Data collection and analysis

With the advent of the era of big data and the innovative application of big data, AI has maximized the value of information in the process of data collection and collection. There are various kinds of information in big data, and one of the functions of electronic information technology itself is to realize data collection and analysis. In this process, AI systems are applied to enhance the accuracy of information data processing and collection. Greatly improve the efficiency of information data collection and analysis.

7.3 Sharing of network information resources

The development of electronic information technology has promoted the sharing of network resources. The use of AI technology can maximize the overall or regional sharing of network resources. Currently, the Internet is used by a wide range of audiences. Therefore, the user group is very large, and its wide range of participation provides sufficient information resources, and various network platforms can share resources so that they can get what they need. In this process, the application of AI can effectively realize the integration of information resources and obtain the information they want in the sharing process. This convenient information acquisition method has comprehensively improved the efficiency of information acquisition and the accuracy of data processing, and has met the diverse needs of users.

7.4 Software and hardware upgrades

The use of electronic information technology is inseparable from the support of hardware and software. For the hardware system of electronic information technology, it is necessary to update and maintain it regularly to ensure the smooth operation of electronic information technology. The same is true for software systems. Only by regular optimization and upgrades can the demand for information data collection and processing continue to be met. In the hardware and software upgrade process, AI is used to assist, and the upgrade request is sent to the user. The user decides whether to upgrade the hardware and software. Generally, user research will be conducted after the user decides the hardware upgrade to meet the user's individualization demand.

8. CONCLUSION

In short, AI is the inevitable trend of future development, and it has an irreplaceable role in many fields. The application of AI to electronic information technology is the current development trend of the times. As electronic information technology will inevitably have some problems in the application process, the application of AI technology in the field of electronic information can achieve efficient and accurate information processing on the basis of making up for its shortcomings. Moreover, judging from the current actual situation, there is still a lot of room for the development of AI. In the future, the application of AI will surely trigger a new technological revolution.

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