

# Review of Electronic Information Technology Application in the Field of Artificial Intelligence

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**Abstract:** The field of artificial intelligence is a hot research direction in the scientific and technological circles in recent years. Artificial intelligence is a branch of computer science. Its goal is to understand the essence of intelligence and produce a new intelligent machine that can respond in a similar way to human intelligence. The research in this field includes robots, language recognition, image recognition, natural language processing and expert systems. However, the development of artificial intelligence is inseparable from the underlying hardware support of electronic technology. As a traditional science, electronic information technology needs to be carefully studied if it can better serve artificial intelligence. This paper summarizes the application of electronic information technology in artificial intelligence.

**Keywords:** Artificial intelligence, computer science, electronic information technology

## INTRODUCTION

With the progress of science and technology and the development of social economy, the field of artificial intelligence has developed rapidly and become the most advanced high-tech field. Artificial intelligence products have been widely used in people's production and life [Paschali, *et. al.*, 2012]. As a new science and technology, electronic information technology has been applied to all walks of life in the social economy [Sabour, 1989]. The field of artificial intelligence is inseparable from electronic information technology. How to apply electronic information technology science to the field of artificial intelligence and promote the rapid improvement of the level of artificial intelligence technology has become an important topic for the scientific and technological circles [Angrosh, *et. al.*, 2013]. By summarizing the concepts of electronic information technology and artificial intelligence, this paper expounds the application value of electronic information technology and artificial intelligence, discusses the positive significance of the application of electronic information technology and artificial intelligence, focuses on its application, and puts forward the application methods and measures of electronic information technology in artificial intelligence, in order to provide reference for relevant people.

## OVERVIEW OF ELECTRONIC INFORMATION TECHNOLOGY

The so-called electronic information technology refers to an information means realized by virtue of various functions of the modern Internet and combined with a variety of technologies in a variety of industries. Electronic information technology integrates high-end technologies in the fields of Electronic Science,

information processing technology and computer technology. Electronic information technology can realize the analysis and processing of a large amount of data and information and the integration of social resources. At present, it has become a basic discipline, its application scope has been extended to many disciplines such as industry, agriculture, engineering, computer, medicine, urban construction, language and psychology, as well as people's production and life [Gu, *et. al.*, 2019]. If electronic information technology is more deeply applied to the field of artificial intelligence, it will be able to provide more intelligent products endowed with human thoughts and similar behaviors for the society in the future, make people's life more convenient, and make people step into information intelligent era.

## OVERVIEW OF ARTIFICIAL INTELLIGENCE

The relationship between electronic information technology and the field of artificial intelligence is inseparable. Electronic information technology is the foundation for the development of the field of artificial intelligence and the key for the field of artificial intelligence to move forward to a higher level. Only by applying electronic information technology perfectly to the field of artificial intelligence can we achieve high-quality development in the field of artificial intelligence and make artificial intelligence products more convenient, fast and high-quality services to people's production and life, In order to serve all fields of social and economic development with higher quality. At present, artificial intelligence has entered a new stage of development, and the development of artificial intelligence is facing major strategic opportunities. On July 20, 2017, the State Council issued the development plan for a new generation of artificial intelligence, which put forward the guiding

ideology, strategic objectives, key tasks and safeguard measures for the development of a new generation of artificial intelligence in China by 2030, This provides the most solid foundation and policy guarantee for the rapid development of artificial intelligence in China.

#### **THE ROLE OF ELECTRONIC INFORMATION TECHNOLOGY IN THE FIELD OF ARTIFICIAL INTELLIGENCE**

Electronic information technology is applied in the field of artificial intelligence. Its role is to process fuzzy information more efficiently, help to reduce capital investment in computing, save computing costs, promote the operation efficiency and quality of artificial intelligence, so as to improve the level of artificial intelligence to a higher level, and give full play to the advantages of artificial intelligence such as high efficiency, high accuracy and multi-channel. At the same time, the application of electronic information technology in the field of artificial intelligence will also react with electronic information technology, promote the comprehensive, scientific and rapid development of electronic information technology, and realize their interaction, complementary advantages, common innovation and coordinated development.

##### **More efficient handling of ambiguous information**

The application of electronic information technology in the field of artificial intelligence can make the processing of unknown problems more rapid, accurate and efficient. We know that the advantage of electronic information technology lies in its powerful function of analyzing and processing data. The most prominent feature of artificial intelligence products is that there are a large number of miscellaneous data and information to be processed, The application of electronic information technology to the field of artificial intelligence just realizes the advantages of electronic information technology to solve the difficult problems in the field of artificial intelligence (as shown in Figure 2). The application of electronic information technology can efficiently process fuzzy information, promote the solution of various problems that may occur in the process of data processing, and improve the accuracy and efficiency of information processing.

##### **Reduce the capital investment in calculation and effectively save the calculation cost**

The application of electronic information technology in the field of artificial intelligence can reduce the capital investment in computing and effectively save computing costs. Before the electronic information technology was applied to the field of artificial intelligence, the processing of a large number of miscellaneous data was usually calculated manually, with a large investment in human and material resources, the accuracy of digital processing could not be guaranteed, and the capital investment was large.

When the electronic information technology was applied to the field of artificial intelligence, it could have a fast computing method and amazing computing speed, So as to effectively reduce the manpower, material resources and capital investment required by the traditional calculation method, and the calculation is fast, accurate and efficient, effectively saving the calculation cost.

##### **Promote the improvement of operation efficiency and quality**

One of the characteristics of artificial intelligence is the large amount of information and complex content. These information and concepts cover all levels and fields. Artificial intelligence should accurately layer these information and concepts, and make scientific and effective use of these layered information and concepts. The first step is to carefully and deeply study those low-level data information, and then further study the high-level data information by deriving the concept of data information. The second step is to integrate electronic information technology into artificial intelligence, which can use the form of nonlinear thinking to deal with problems, so as to promote the efficiency and quality of artificial intelligence.

#### **APPLICABLE ELECTRONIC INFORMATION TECHNOLOGY IN THE FIELD OF ARTIFICIAL INTELLIGENCE**

Artificial intelligence and electronic information technology are the most cutting-edge high-tech fields at present. Although they can interact and develop harmoniously, they also belong to different areas of science and technology. In the discussion of the application of electronic information technology in the field of artificial intelligence, it is also very necessary to explore which technologies of electronic information technology are more suitable for the application in the field of artificial intelligence, this is more conducive to the application of electronic information technology in the field of artificial intelligence [Cui, *et. al.*, 2018]. Through research and practice in recent years, there has been a broad consensus on which electronic information technologies are more suitable for application in the field of artificial intelligence.

##### **Data acquisition and analysis technology**

Data collection and analysis is the advantage of electronic information technology, and the field of artificial intelligence needs to collect, process and analyze a large number of complex data and information in the process of artificial intelligence product design, which provides opportunities and possibilities for electronic information technology to give full play to its advantages. For various changing data and information in the era of big data, electronic

information technology has the ability to collect and analyze them perfectly, And find the value contained in the data, so that the needs in the field of artificial intelligence can be effectively met due to the integration of electronic information technology. Therefore, the data collection and analysis technology in electronic information technology is very suitable for application in the field of artificial intelligence, which is conducive to the collection and analysis of data according to different needs in the field of artificial intelligence, and comprehensively improve the efficiency of data collection and analysis, so as to promote the high-quality development of artificial intelligence.

### **Network resource sharing technology**

Electronic information technology is applied in the field of artificial intelligence. Network sharing technology is a very important content. The field of artificial intelligence has the characteristics of diversification and huge amount of data, and network sharing technology is another major advantage of electronic information technology. The integration of the two is both necessary and possible. Electronic information technology can obtain a large amount of valuable data from cloud servers through network interfaces, The artificial intelligence system can no longer take its own database as the only reliable data source when receiving network data. It can obtain a large amount of valuable data through the integration of electronic information technology and the application of network sharing technology, so as to provide users with more accurate, comprehensive and efficient services. At the same time, artificial intelligence products can upload information to the network platform to provide basis for overall decision-making and realize network resource sharing. Taking the P2P sharing mode as an example, it makes full use of network resources to realize the communication and exchange between users. Combining the sharing mode with artificial intelligence, it can not only meet the needs of users, but also realize the automatic identification of valuable information in the network. In addition, according to the unlimited resource sharing conditions and network fluctuations, the artificial intelligence system can also freely switch the network resource download mode, and realize the network resource sharing through a variety of ways and means.

### **Network information security technology**

With the rapid development of the Internet, network information security has become an important issue in all fields of society. In the field of artificial intelligence, it is necessary to prevent the leakage of customers' personal privacy and related data, so as to avoid causing losses and impacts to customers. In the process of design, development and manufacturing of artificial intelligence products, network information security

problems will appear. The traditional security technology can no longer effectively solve the current security problems, and the technology needs to be optimized and upgraded. The application of network information security technology in electronic information technology in the field of artificial intelligence can ensure the security of intelligent products, It is the best choice to apply the network information security technology of electronic information technology to meet the security needs of products in the field of artificial intelligence. Therefore, we should make full use of electronic information technology to ensure the security of artificial intelligence. At the same time, applying network information security technology to the field of artificial intelligence can also promote the development of electronic information technology and provide reference for future network information security solutions.

### **Software and hardware upgrade technology**

The performance of artificial intelligence products is inseparable from the support of software and hardware. At present, with the rapid development of electronic information technology and frequent updates, artificial intelligence products also keep pace with the times and constantly update. Therefore, artificial intelligence products must constantly optimize the performance of software and hardware. Therefore, software and hardware upgrade technology can be widely used in artificial intelligence products. For example, many schools have set up intelligent network libraries. After entering the online library, students can borrow books according to their own learning needs. Electronic information technology software can meet students' borrowing needs, complete library data retrieval, view and download relevant information, and improve the comprehensive management level of the library system.

## **CONCLUSION**

To sum up, electronic information technology can inject source power into the development of artificial intelligence, effectively improve the operation efficiency and accuracy of artificial intelligence products, and provide more comprehensive and high-quality services for the society. At the same time, electronic information technology and artificial intelligence complement and promote each other, which will also effectively promote the stable development of electronic information technology.

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