

# *Discussion on Key Technologies of Computer Artificial Intelligence Recognition*

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**Abstract:** Computer artificial intelligence recognition technology is a kind of operation means based on traditional computer technology, which has become a new type of science and technology today. At present, the scope of computer artificial intelligence recognition technology is very wide, and it is also very vulnerable to other different factors in the development. However, the research on key technologies of computer artificial intelligence recognition is relatively few in China, so relevant personnel must comprehensively study the application process of computer artificial intelligence recognition technology based on their own work experience, so as to provide strong reference for other personnel.

## **1. Introduction**

With the continuous development of the times, computer technology is also developing in the direction of innovation, so at this stage, artificial intelligence technology is becoming more mature, and is also effectively used in different fields, which is bound to bring convenience to people's life and learning. At present, the common AI technologies are mainly composed of robot technology, artificial neural technology, intelligent speech recognition technology and other different types of technologies. Only by applying them to different fields can we better meet the needs of the development of the enterprise era.

## **2. Overview of Computer Artificial Intelligence Recognition Technology**

Intelligent identification technology is the general term of computer technology, scanning technology and camera technology. Advanced technology can be used to identify different types of data to meet the requirements of modern recognition. China's domestic AI recognition technology is developed from voice technology. The focus is to directly control mobile phones by controlling their own advantages to better meet the needs of the social masses. In the specific operation, we can also use voice recognition to better concentrate various voice content and instructions, so as to make a real scientific choice. Effectively promoting the development of artificial intelligence recognition technology can enable people to better operate collection, reduce workload, improve the efficiency of operation, and ultimately better meet the requirements of the current development of the times.

### **3. Classification of Computer Artificial Intelligence Recognition Technology**

At present, people have classified artificial technologies according to different types of vital signs. Among many artificial intelligence recognition technologies, some are common life recognition technologies, while others do not have recognition functions. Therefore, when using technology, we can directly classify it from the following perspectives:

#### **3.1 Life Recognition Technology**

Life recognition technology is a series of technologies related to human life characteristics, mainly composed of the following technologies: First, fingerprint recognition technology. This technology focuses on managing and confirming the identity of people by identifying their own fingerprints, so as to better meet the needs of practical application. Just because everyone has different fingerprints, you can verify your identity by identifying the fingerprints of different people [1]. Second, speech recognition technology. This technology can recognize the voice of different recognizers directly. Similar to fingerprint technology, voice recognition technology can directly identify people of different identities according to the characteristics of different people's voices. Speech recognition technology can identify different people by analyzing their tone, timbre and other different contents. Third, face recognition. This recognition technology mainly recognizes the faces of different people, and then specifically analyzes the pupils, structures and other different contents of different people, so as to better confirm the identity of the people participating in the detection.

#### **3.2 Non Life Recognition Technology**

Common lifeless recognition technologies include the following: First, smart card technology. At this stage, the smart card technology can identify different information in a relatively short time. It not only has strong computing power, but also can effectively integrate with the computer system. At the same time, it can better integrate information collection, information management and information acceptance. Finally, it can really directly verify different things. Second, radio frequency identification. Different symbols can be used for direct radio frequency identification. More advanced electromagnetic wave technology can be used to verify different types of targets, so as to better track. Third, barcode recognition. Different types of barcode can be used to identify different types of information, which can not only identify different types of information, but also effectively meet different needs.

### **4. Application Strategy of Computer Artificial Intelligence Recognition Technology**

With the continuous development of the times, computer information technology is constantly innovating, and a large number of technologies have become more mature, and are finally applied to different fields. In the future, the development of AI technology in China will become faster and faster, and will be widely used in different industries. At present, the application strategies of computer artificial intelligence recognition technology include the following:

#### **4.1 Speech Recognition**

Speech recognition has become a very important part of computer artificial intelligence recognition. The ultimate purpose of this technology is to let more people know about things. Machines can not only understand human language, but also better research and innovation on the

basis of realizing human-computer language interaction, so as to better meet the needs of the development of the times. At present, speech recognition technology has always been an important part of people's research, and has also attracted more attention [2]. At present, speech recognition technology has been widely used in different fields, which can not only provide greater convenience for people, but also meet the emerging needs. At present, voice control telephone, voice communication system and voice communication system, which are common in life, can provide services for different people.

## **4.2 Artificial Neural Network**

The development of artificial neural network is a very widely used technology, which refers to the direct connection with various advanced processing units to form an efficient network system. Such a system not only has strong thinking ability, but also is a process of human brain simulation and simplification. At present, the common artificial neural network can effectively stimulate the potential of the human brain on the basis of simulating the neural system. At this stage, electronic components on the market are very common, so they can meet the needs of more people in operation. The more advanced artificial neural network can directly read and store different types of knowledge with the help of neurons, and at the same time meet more different needs on the basis of operation.

## **4.3 Robots**

Robots have gradually become a new discipline on the basis of meeting the development requirements of the current era. At the same time, the development of robots has also brought great convenience to people's daily life. Today, intelligent robots have been distributed in different fields and have achieved better service results. With the continuous development of the times, more and more people also know how to better integrate artificial intelligence and robots, and on the basis of expanding their own application scope, they are more eager to let the artificial intelligence recognition technology achieve innovation. With more and more people's research on robots getting deeper and deeper, I believe that robots can fundamentally reduce the cost of enterprise operation.

## **5. Problems in the Development of Computer Artificial Intelligence Recognition Technology**

From the current development, all major fields are very keen on the operation and application of computers, so computers have also been used in different industries, and ordinary people have begun to pay attention to issues related to information security. Therefore, we need to directly monitor the network from the perspective of network management, and adopt appropriate methods to directly handle different types of information. However, the following problems will arise in the development of computer artificial intelligence technology: First, the internal rules of computer technology are poor, and the continuity of itself is not strong enough. Even though computer technology can only use general logical analysis and processing methods at the beginning, it is still unable to better judge the authenticity of information. Second, although the scope of computer applications is constantly expanding, the difficulty of computer software development is also increasing. It is likely that many different problems will arise when using AI technology, which will not only increase the difficulty of computer development, but also reduce the efficiency of data collection and use. Third, with the continuous development of science and technology, people's requirements for computer artificial intelligence recognition technology have become increasingly high. Even though the artificial intelligence computing and recognition technology is developing continuously, it is difficult to meet the increasing needs of people. China's AI computer recognition

technology started late, so there is still a long way to go in the future. Fourth, the market system related to computer artificial intelligence identification technology in China is not perfect. On the one hand, the lack of corresponding regulatory authorities will make the computer artificial intelligence identification technology in China not perfect [3]. On the other hand, the computer artificial intelligence recognition market in China is still very confused. Many people lack the guidance of relevant personnel when using recognition technology, and the whole computer artificial intelligence recognition technology industry also lacks unified standards. These will hinder the development of computer artificial intelligence recognition technology. Fifth, China's computer artificial intelligence recognition technology is still lack of innovation and practicality. Although the computer artificial intelligence recognition technology has been constantly imitating the thinking and action of the human brain, it is still a technology in accordance with the established process in the final analysis. Such a technology cannot be adjusted and applied according to the actual situation. Even if problems occur in use, it can only be repaired directly according to different provisions, which is not conducive to the future application of computer artificial intelligence technology. In fact, a technology still lacks certain emotion and flexibility, so there will be many different types of problems when the technology is formally applied. Sixthly, China's computer AI recognition technology still has many imperfections in different aspects such as speech recognition, data analysis and structural research, and many different loopholes in many technologies. Therefore, there is indeed much room for practice in the future, and it is more necessary to develop a truly appropriate AI recognition technology.

## **6. Measures to Improve Computer Artificial Intelligence Recognition Technology**

### **6.1 Adopt Appropriate Methods to Improve the Data Literacy of the Whole People**

Only by using appropriate methods to improve the AI data literacy of the whole people can the application efficiency of AI technology be improved. On the one hand, the country can set up a series of specialties related to artificial intelligence technology to cultivate talents related to the development of artificial intelligence technology. On the other hand, it can give some people who really understand artificial intelligence technology more platforms and space to show their own. It is believed that only with the support of talents can China's artificial intelligence go further.

### **6.2 Let the Government Support the Development of Computer Artificial Intelligence Identification Technology**

The government will also play a great role in the development of artificial intelligence, so as to better enhance its competitiveness in terms of human, material and financial resources. For example, the data center under AI technology often needs government support in funds, venues and other aspects, which can make the government become the promoter of AI technology, and the government also needs to open appropriate space to some small enterprises. In addition, the government can also become partners with some companies engaged in AI research, and let them provide services related to AI for the government. At this time, the government has really become an important platform for giving play to AI technology, and more importantly, enterprises can put forward relevant opinions on the platform [4].

### **6.3 Encourage More College Students to Directly Invest in the Field of Artificial Intelligence**

The state should directly encourage more college students to directly devote themselves to the field of artificial intelligence, and give more favorable treatment to the researchers of computer

artificial intelligence identification technology, so as to attract more talents into this industry. In addition, it is more necessary to adopt appropriate methods to establish a high-quality artificial intelligence network communication platform, and better gather the talents engaged in artificial intelligence into a unified platform for communication, which will eventually make the computer artificial intelligence recognition technology develop better.

#### **6.4 Improve the Market System of Artificial Intelligence Industry**

We can standardize the computer artificial intelligence identification technology by establishing unified standards and platforms within the market, and then establish appropriate monitoring and supervision departments within the artificial intelligence industry to prevent the emergence of inconsistent computer artificial intelligence identification technology in the market, and ultimately promote the better development of the entire computer artificial intelligence identification technology. In addition, it is more necessary to establish a high-quality evaluation department within the market, focusing on the ability to evaluate different types and levels of AI products, so that more consumers can refer to it.

#### **6.5 Dispatch Professionals to Focus on Ai Problems**

Attention should be paid to the implementation of computer artificial intelligence identification technology to different details. If there are products that encounter different problems, the majority of leaders should actively participate in them, and through the use of each person's talent to better unite the personnel within the industry. Only in this way can the industrial culture play its due role on the basis of rapid problem solving. In addition, it is more necessary to adopt appropriate methods to achieve the overall division of labor and avoid vicious competition in the later period.

### **7. Future Development Trend of Computer Artificial Intelligence Recognition Technology**

The future development trend of computer artificial intelligence recognition technology includes the following contents: First, the future computer artificial intelligence recognition technology will be consistent with human intelligence level. According to the analysis of relevant experts, the level of artificial intelligence will reach the level of human beings themselves by 2030, so it is believed that computer artificial intelligence recognition technology will also have new development and requirements. Second, more advanced computer artificial intelligence recognition technology will be applied more widely in the future. The more developed places will use various recognition technologies to facilitate their lives and improve their own quality of life later. This recognition technology will not only be widely used in work, but also extend to people's families. Even the most high-end recognition technology can read personal emails based on listening to your personal conversations, and monitor your own body better with the help of computer artificial differentiation technology. Third, high-end computer artificial identification technology can predict your own needs and behaviors on the basis of understanding your personal preferences. It can not only identify various appearances, but also monitor your personal health, and help you solve problems better based on setting medium and long-term goals. Of course, this intelligent recognition technology will vary according to your personal development, so you need to adjust the parameters according to the specific situation. Fourth, computer artificial intelligence recognition technology will better cooperate with different occupations within human beings in the development, and directly become an integral part of our daily operations. The more high-end intelligent identification technology can not only better support employees' creative activities, but also generate other new ideas, and at the same time, make one's career higher. For example, if a sales person wants to find

his own customer in the future, he needs to use high-end computer artificial intelligence recognition technology to find the customer he wants according to his own conditions. When all different information is input, he can find the customer he really wants [5]. Fifth, in the future, computer artificial intelligence recognition technology will enable all industries to better develop towards the direction of personalization. When computer artificial intelligence recognition technology is integrated into other industries, it will add features of other industries. For example, if computer artificial intelligence recognition technology is integrated into children's toys, we can better recognize different faces and names with the help of children's faces and voice content, and we can also better predict various commands with the help of voice recognition in computer artificial recognition, and meet our own requirements with the help of future prediction.

## 8. Conclusion

To sum up, with the continuous development of the times, artificial intelligence recognition technology will be popularized in different industries, which will also be an important trend of future development. Ultimately, people's production and living efficiency can be improved fundamentally, not only making people's services more convenient, but also effectively integrating computer technology and other industries. However, it is believed that there will still be a series of shortcomings in the future use of AI recognition technology in China, so the majority of staff can better improve the application effect only through continuous innovation.

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