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Exploration and Reflection on the Application Path of Internet of Things Technology

Wei Yu

Hangzhou Polytechnic, Hangzhou 310012, China.

Abstract: The advent of the information age has made the world interconnected, and the Internet of Things computer technology has become an important part of modern life. In the process of providing information, many enterprises also keep pace with the times, develop continuously, and realize their own development. In this process, its technology has also been widely used in many fields to ensure the sharing, publishing and exchange of information. Therefore, in order to keep up with the trend of the times, many manufacturers have also begun to pay attention to the Internet of Things. Internet of Things combines today's new technologies with the convenience of the web, connecting all intelligent devices into one network and making people's lives easier and more convenient.

Keywords: Computer; Internet of Things; Application path

Introduction

In today's history, the Internet of Things has a perfect definition, and the use of information analysis tools, according to the corresponding protocol, with the Internet to connect anything, and call communication and information, so as to achieve intelligent management, tracking, installation and identification work, which can be extended and reach the Internet. The use of Internet of Things technology cannot be blinded. The goal is to create the best technology company according to the needs of the business. Only in this way can the technical potential of the Internet of Things be strengthened. Also, the use of technology in the Internet of Things world is non-existent in life. In order to speed up its development, we need to understand the use characteristics of the Internet of Things, identify the main technologies of the Internet of Things, and understand some of the current use of the Internet of Things.

1. Internet of Things overview

1.1 Viewing the Internet of Things from the technical level

It is not possible to understand Internet of Things through literal analysis, so it is important to carefully study the processes, main technologies and applications of Internet of Thing. Computer Internet of Thing is divided into three layers: view layer, network layer and application layer. The three layers of computer network technology complement each other, and each layer has its own technology. For example, the network layer can also be divided into two layers, namely the transport layer and the layer responsible for important. For the transmission of data and information, including private networks, the Internet, telephone and wireless communications. The sensory system is similar to the nerve endings of the human body and is responsible for collecting data and information, with modern technologies such as barcodes, sensors, smart machines and numbers. The network layer is the main framework for data exchange and communication, and is the most widely used. The transportation system includes technologies such as satellite communication and telecommunications, and the system includes technologies such as GIS/GRS technology and cloud computing. In addition, Internet of Thing computers also include some visual indicators, such as carbon dioxide concentration sensors, temperature and humidity sensors, RFID tags and readers, cameras, GPS, etc.

1.2 Key technologies of Internet of Things

In recent years, the field of Internet of Thing has become more and more extensive. We know that the data processed by the computer must contain digital symbols, which requires the computer to have the responsibility to convert the analog signal into signal data, just like there is sensor technology. In recent years, with the development of the Internet of Things, another kind of sensor has appeared, that is, the RFID tag, which is a unified and widely used sensor for identifying automatic detection and control equipment and other fields. The development of computer information has led to the continuous development of the Internet of Things technology. Now, modern tools such as information and communication technology, electronic sensors and technologies of equipment have been developed, that is, embedded system technology. It is the embodiment of the development of Internet of Thing computing technology. In the long process, embedded systems have been widely used.

1.3 Application technology of Internet of Things

As we all know, as society develops, if we are to make better use of computer technology to help social work, we must consider the performance of the technology to ensure that it adapts to technological progress. Effective diversification of traditional sensors is not yet available. The development of wireless sensor networks has been able to serve military and civilian applications. It mainly consists of several different wireless sensors. Following the trend of technology, wireless network technology is also miniaturized and intelligent. Wireless sensor network technology is expected to bring about a sea change from traditional sensors to smart sensors in the near future. The development of the Internet of Things in recent years can be seen from the adoption of radio frequency technology, which is widely used. This technology is mainly used for electronic chips and proximity cards. The principles of shooting techniques are difficult to understand. It requires the scanner to transmit radio wave energy at a specific frequency and control the receiver's circuitry to send the code. Advanced radio frequency technology lies in the particularity of its receiver, and its chip code is the only one in the world that cannot be copied, with high security and long life. In addition, computer Internet of Things application technology and network communication technology, especially using existing computer equipment and corresponding network communication equipment to collect, store, process and transmit graphic data. Network communication equipment can maximize the use of resources and fully share information resources.

2. Application path of Internet of Things technology

2.1 The application of Internet of Things in the field of fire protection

2.1.1 Personnel management

There will be many emergencies in the firefighting process. To solve this situation, we need to know a lot of information in advance and be careful. When Internet of Thing enters a fire station, it helps firefighters know everything about when rescue equipment is ready, when equipment is communicating, gather emotional information, get a clear picture of the worker's situation and environment, and make the preservation process helpful. It can also enable employees to use their time effectively and efficiently. At the same time, the connection between Internet of Things and sensors, carried by rescuers, can detect abnormal situations at the first time, plan rescue and distribution, and ensure the personal safety of rescuers.

2.1.2 Fire resource management

The Internet of Things can listen to electronic devices in various places and offices and then classify them according to different characteristics such as function and type. At the same time, the damaged data can be sent to the data management for detailed management. This can be combined with electronic information and dispatch of personnel in special places to provide the basis for emergency and emergency plans. The application of the Internet of Things computer in the field of fire protection not only increases the informationization, automation and intelligent power consumption, but also increases the

control and construction of the fire station, and increases the ability to respond to emergencies.

2.2 The role of Internet of Things in education

2.2.1 Experimental practice teaching

In today's education, there is no knowledge and practice to develop students. With the reform of education, the practice of learning experiment has been paid more and more attention by people. However, this approach is difficult to implement for several reasons. But when Internet of Things computers are used in education, not only can some problems be seen through modeling or photography, but they can also become workplaces for teaching experiments. At the same time, it also allows students to connect experimental equipment through the Internet of Things to achieve remote control. In monitoring, the Internet of Things sends test time information and test scores to teachers to achieve the purpose of teacher-student communication. Instructions and warnings are given when testing other materials or during testing. This model has changed the way of teaching, which not only improved students' knowledge and work ability, but also enhanced students' learning ability.

2.2.2 Information education management

Internet of Things technology has been incorporated into school education and school administration to manage student safety, school equipment and infrastructure, classroom testing and communication. Such as: security management, allowing students to wear ID cards, which can identify students' attendance time, identity and location on campus. Using Internet of Things computers reduces security risks in schools and keeps students safe.

2.3 The role of Internet of Things in the field of e-commerce

2.3.1 Management of goods

Using the Internet of Things to build tracking equipment, this system from IP and encryption technology to special equipment can help companies track products anytime, anywhere, improve quality control, help customers manage policies, let more people know important information about products, improve customer service and also promote good sales.

2.3.2 Logistics

By using computers and Internet of Things technology in logistics, you can identify the location of different products, create a safe and reliable warehouse, and protect your business. During transportation, GPS technology will automatically upload the information during transportation to the transportation system configuration center, and then monitor the status of the product through the measurement system, which can ensure product quality and help customers receive logistics information. Finally, after the goods arrive, customers can check the goods directly through the system.

2.4 Application of Internet of Things in urban management

In terms of urban management, network computing has changed the way of thinking in cities and realized the relationship between digital management and urban security. The development of spatial information will be developed and used to support the planning, development and management of cities and people, governments and businesses in order to achieve sustainable economies. It will also monitor other services in the city through the Internet and send damaged images to the city's information system.

3. Conclusion

All in all, in the development of science and technology, the Internet of Things technology of computer products is very useful and can promote the development and construction of human knowledge. Our country should encourage the application and research of this technology, encourage the application of this technology in different fields of society,

promote the progress in different fields and industries, and provide good conditions for our country's cultural and economic construction.

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About the author: Yu Wei (1979.8--), male, Han nationality, from Hangzhou, Zhejiang Province, is currently working in Hangzhou Polytechnic, with the title of lecturer, graduated from Zhejiang University of Technology, majoring in computer science and technology, with a bachelor's degree, the main research direction for the field of artificial intelligence of things.