Research on Development Status of Modern Wireless Communication Technology and Its Future Development Trend

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Abstract. In recent years, with the development of modern wireless communication technology, it has become a new communication technology. Compared with the traditional communication technology, modern wireless communication is relatively combined with more advanced science and technology. When people communicate on wireless communication, they can get more convenience at a faster speed, which has a significant impact on people’s lives and is also recognized by the general public. Modern wireless communication technology makes people’s life and communication more convenient, but how to improve this technology in the future is also the focus of the majority of scholars. In this paper, the author first briefly expounds the modern wireless communication technology, then studies the problems of modern wireless communication technology, and finally expounds its future development trend.

Keywords: Modern wireless communication technology · Future development trend · Development status

1 Introduction

Modern residents can use wireless communication technology in their daily life. Wireless communication technology has developed into thousands of households. It makes the communication field get better development, and the communication scale is gradually expanding. Because of this technology, modern residents get more convenience, and the quality of life gradually improves. And residents hope that wireless communication technology can have a better development prospect. The author also firmly believes that modern wireless communication technology can have a better future and continue to bring convenience to residents.

2 A Brief Overview of Modern Wireless Communication Technology

Wireless communication technology is a technology developed based on the principle of electromagnetic wave. Such technology is relatively fast in propagation speed and convenient in use. At present, it has entered thousands of households and has been
widely recognized by the masses. Generally speaking, wireless communication technology can meet the long-distance contact of residents according to satellite communication, which directly solves the problems brought by distance. In communication, residents can use satellite to contact friends and relatives far away, which greatly solves the communication needs of residents. Satellite communication technology sets specific contact points in each transmission signal, and each contact point can connect the signals to achieve long-distance communication. It is worth noting that microwave technology will be used in wireless communication technology, which seems to be unable to meet the actual needs of long-distance. These two communication technologies show their own characteristics. Although microwave communication technology cannot transmit in a long distance, it can carry a large capacity of information transmission. At present, it is in the era of big data, when the information explosion, the spread of a large number of data with the use of wireless communication technology meets the actual needs of modern residents. On the basis of wireless communication technology, it is convenient for people to communicate with each other [1]. Wireless communication technology is also a solid platform, and people’s basic communication can also be met. In short, wireless communication technology can improve itself with the technology of modern scientific development, which is a technology standing on the shoulders of giants. With the development of society in the future, wireless communication technology can also make great achievements.

3 Development Status of Modern Wireless Communication Technology

The scope of modern wireless communication technology is relatively wide. From the aspect of long-term use by residents, wireless broadband technology, mobile communication technology, and Bluetooth technology cannot be left by modern residents.

As an important part of modern wireless communication technology, wireless broadband technology contains rich content and involves many aspects. Microwave broadband is a broadband network commonly used by residents, which also occupies a top position. According to the special network layout, microwave broadband can exchange and disseminate various images, audio, languages and other information within a certain distance. In addition, it can greatly reduce the power that wireless communication technology may consume during operation during transmission. It is true that the wireless communication technology itself is connected to satellites, the technology is more complicated, and the information is relatively more stable, and it has a higher position in the more demanding careers such as education and the military industry. In the wireless communication technology, infrared light has great value in connecting information. It realizes the transmission of information even in the background of long distance. However, the entire transmission process has relevant requirements for the instruments that receive and emit signals [2].

The technology that has the same important position as the wireless broadband technology is mobile communication technology. The development of modern science and technology in China is rapid, and the basic mobile communication technology has been fully spread across the country. Among the mobile networks in the country, 3G
has covered all areas, 4G has entered thousands of households, and 5G has gradually been recognized by people. According to the data found in the author’s research, by 2019, 4G has completed 80% coverage. The continuous development and improvement of 4G technology, the current 4G application range is also getting wider and wider. “Cloud global travel” is no longer a dream, and global tourism can be realized in the cloud. With the development of communication technology, the global village has become the general trend. Therefore, in the Spring Festival of 2020, even if the COVID-19 hinders the pace of residents to visit relatives, it cannot prevent relatives and friends from sending blessings and greetings from the cloud. Mobile communication technology connects Africans, Asians, Europeans, Americans, and even people in Oceania and Antarctica. People carry out comprehensive communication on the network, which not only broadens the horizons of residents, but also enables them to understand the living habits of global residents. Mobile communication technology still opens the world’s doors for Chinese people. In the future, the development of 5G will also directly enter people’s hearts with a more rapid attitude. The majority of Internet users are optimistic about the 5G currently on the market. The national mobile information has gradually developed into an indicator of the level of national communications development [3].

Unlike wireless broadband technology and mobile information technology, the development of Bluetooth technology has gradually matured. However, the use of Bluetooth cannot break through the limitation of distance, and the transmission of information is also affected. But the charm of Bluetooth itself cannot be underestimated. It is quick to use Bluetooth devices to connect within its own range to transfer and exchange various information data such as pictures, videos, texts and so on. After mobile devices such as mobile phones and tablets are connected with Bluetooth, ultrafast data exchange can be achieved. It can be exchanged without the influence of the network as long as the distance requirement is met. But because of the distance limitation, it is difficult to meet the needs of users. When faced with wireless communication technology, the advantages and disadvantages of Bluetooth devices are prominent. Relevant technicians should also pay more attention to Bluetooth communication technology [4].

4 Future Development Trend of Modern Wireless Communication Technology

This paper analyzes the future development trend of modern wireless communication technology, including the era of wireless communication technology reform, the development trend of broadband and the improvement of personal information development trend [5].

The demand of modern residents for wireless communication technology is increasing gradually. In the future, wireless communication technology is bound to face technological reform. At present, the advantages of wireless communication technology are obvious, but its shortcomings are also recognized. In the future development of wireless communication technology, it is important to increase the frequency spectrum to ensure that wireless communication technology can better develop its own
advantages and improve the efficiency of data exchange. After that, it is also necessary to guide mobile operators and consumers to have closer contact. Consumers can better experience the convenience of modern communication technology for life, and truly enjoy the convenience of high-speed development of science and technology for people’s clothing, food, housing and transportation. Modern wireless communication technology should upgrade and change the communication technology based on the actual needs of people, so that people can enjoy more foreword communication technology [6].

The development of broadband has been able to meet the basic needs of the current residents, but the popularity of wireless bandwidth technology in China still has some problems. Every household can enjoy a convenient network when using wireless broadband, but the wireless broadband technology itself also has a certain development space. The staff of relevant departments should actively face the wireless broadband technology, upgrade and transform and analyze and research the technology, so that the wireless broadband network can also run at a high speed. And users using wireless broadband networks can feel the convenience and charm of wireless broadband, and enjoy the achievements of technological development. The improvement of wireless broadband information technology can also make people more deeply realize the sense of national honor, feel the happiness brought by using wireless broadband, and make people full of hope for life and society, which plays a positive role in the better and comprehensive development of the whole country [7].

With the development of information age, personal information should be paid more attention to. It has to be affirmed that the era of national information personalization has been deeply rooted in the hearts of the people, which is the inevitable trend of future development, so information personalization is important. At present, wireless communication technology has made good achievements, and the development results are obvious to all. Every radio station or mobile phone will have an IP address, which is equivalent to the ID card of mobile phone or computer. Mobile phones and computers all over the world have their own identity, and the whole information is shared on the network. According to the network research, 4% of the functions used by users are open network, which can be locked by IP address and complete the functions of query and location. The remaining 96% are dark network information. 4% of the functions include WeChat, QQ, video APP, micro-blog, Kwai and so on. The IP address itself is a protective umbrella to protect users from negative impact due to illegal attacks [8]. At the same time, there should be a certain amount of personal space on the network, which can meet the actual needs of modern wireless communication users. However, in the current network world, the degree of information personalization is still not perfect, and the use of bitcoin to some extent represents that there is still room for information personalization. Relevant technicians can carry out targeted repair, think about the perfection of information personalization, and research the protection of information personalization, so that users can experience in a more complete information system [9].
5 Conclusion

Modern wireless communication technology has developed rapidly, and the domestic development trend is strong. Although the technology cannot be compared with the international high level, modern wireless communication technology in China has made a qualitative breakthrough, and under the unremitting efforts, it is the only way to catch up with the international wireless communication technology level in the future. In the future, wireless communication technology and broadband communication can be carried out in-depth research, improved technically, put forward opinions from objective needs and improved technology. Furthermore, we should pay attention to the degree of personalization of information to ensure that users can surf the Internet more secure and conveniently [10].

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