

# Modern Electronic Technology

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## **Modern Electronic Technology**

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*Modern Electronic Technology* (MET) is an open access, peer-reviewed scholarly journal which aims to publish original research articles, reviews and short communications that covers all area of electronic engineering technology. MET emphasizes on publishing high quality papers, as well as aims to provide a source of information and discussion platform for engineers, researchers, and electronic professionals worldwide.

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# Research on the Development Trend of Electronic Communication Technology Based on Intelligent Network

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## ABSTRACT

With the rapid development of electronic communication technology, various new technical elements are constantly added to it, bringing many changes to people's lives and work. The traditional data diversion mode can no longer truly meet the needs of actual work, and the electronic communication mode plays a huge role and occupies an important position in the communication market. Regarding how to develop and apply intelligent electronic communication technology more perfectly, there will be an overview of the specific principle of intelligent electronic communication technology, from the multi-faceted impact of electronic communication technology on human society. The article put forward the future development trend of electronic communication technology based on intelligent networks, emphasized expanding the scale of technology coverage, improved the comprehensive quality of technical products, optimized the structure of the communication industry, and formed a perfect industrial chain, so as to improve the intelligent level of electronic communication technology.

## 1. Introduction

In life, communication is a very common communication technology, and its position in people's lives is becoming more and more important. The principle of communication is to use a certain platform to achieve communication and communication between information. In the current era of continuous development of society and continuous improvement of science and technology, the standards of the public for life needs and communication needs have also undergone great adjustments<sup>[1]</sup>. Today various communication methods and technologies have also emerged. The most developed technology, modern electronics and computer technology have pushed communication to a new platform. Intelligent electronics are gradually becoming formal after gradual improvement

and development, which provides greater support for the improvement of the technical system. Based on this, this paper will analyze intelligent electronic communication technology.

## 2. Principles of Electronic Communication Technology under Intelligent Networks

### 2.1 Intelligent Network Principle

In the current network development, the field of electronic communication has been quite mature, occupying a large market share in people's production and life. Electronic technical communication principle is complex, including communication and electronic principles. Intelligence is a high-end technology developed in computer

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technology, making the intelligence of electronic communication a complex technology<sup>[2]</sup>.

Intelligence is the high-end development direction of the future technology field, and intelligent technology is born in computer technology. Intelligent electronics can understand the intelligence of human labor, which is actually through computer simulation and human body engineering technology field, and through the combination of application, to achieve a simulation of the human brain of an operation technology, in various countries of the robot exhibition, often can see new robots can do a lot of human can not do things, robots involved in a very wide range of fields. Robots and high-end machinery include visual recognition and speech recognition. In fact, many technologies are not only pure artificial intelligence, intelligent technology stays in the intervention of personnel, in automation, many things still need to be strengthened, such as intelligence to the direction of automation development, which has obvious technical difficulties, and many high-end computer technology can not achieve subjective consciousness judgment<sup>[3]</sup>. Therefore, in the field of intelligent technology applications, breakthroughs in the field of intelligent technology cannot be truly achieved. In electronic communication technology, intelligence can realize many applications and maximize market value.

If it is in an electronic server or exchanger, intelligent module processing can be embedded in it through the data processing center. Different information flow lies in the central processor connection, which can achieve the intelligence of the shunt, to achieve intelligent electronic technology communication, intelligent piece of its essence is the inheritance of statistical analysis data, in the current social field, real artificial intelligence can not be achieved, many technologies are infinitely close to this field, intelligent electronics is the same. The different instructions of the diversion are stored in an intelligent data-based block processing after processing to realize intelligent information distribution.

## 2.2 Principles of Electronic Communication Technology

The intelligence of the electronic communication process mainly reflects three aspects: intelligent dialing, information transfer and information transmission, which are directly related to data processing and analysis. When the system receives the information, the intelligent processing module analyzes the data to achieve the purpose of restoring the information. In general, the intelligent processing module is installed in embedded mode into the system, and the central processing unit automatically distributes the received information<sup>[4]</sup>. In the whole process,

the system only needs to compile a triage instruction and store it in the intelligent module to realize information triage. It is unrealistic to make a computer system operate exactly according to the human brain's thinking, but it can be continuously developed in the direction of artificial intelligence with the help of statistical analysis.

Electronic communication technology is a very important application form in the current communication technology, and the traditional form of communication technology is very diverse. In terms of the above difference between communication and communication fields, communication technology is still lingering in low-level fields and stagnating. However, in the continuous improvement and development of electronic communication technology, communication technology has achieved high-end technical application<sup>[5]</sup>. The communication principle of electronic technology enhances electronic equipment, transforms the traditional form of communication mode, and realizes the technological change of electronic communication. Electronic communication technology and principles actually only contain two types of working principles. The first point is the transmission and reception of electronic radio, and the other is the transmission of data streams. In practice, electronic communication mainly transmits data to mobile phones in radio waves. Mobile phones as the reception and occurrence of information, receiving signals, in fact, no matter what kind of electronic communication equipment, is the circulation and transmission of signals as the basic principle. Data transmission in the communication between monolithic transmission and walkie-talkie is quite a communication data flow technology, in the transmission and reception of the device to achieve data flow transmission.

## 3. The Characteristics and Influence of Intelligent Electronic Communication

### 3.1 Features of Intelligent Electronic Communication

#### 3.1.1 Convergence

Integration is also an important development trend in the current development process of intelligent electronic communication technology, from the perspective of "three-network integration", at present, China's telecommunications network, computer network, and cable TV network are constantly developing based on their own core technology, and eventually to the converged network transformation, the three networks will use their respective data platforms to provide users with multimedia information, although can not be replaced by a single network,

but “triple-network integration”. It will become the main form of future development of these three basic networks. From the perspective of technical application, the technical characteristics of the three networks are basically the same, which also lays the foundation for the integration of their technologies, such as digital technology, access technology and software technology <sup>[6]</sup>. The business foundation of the three networks is also relatively solid, because in the current social development, often the development of the network and the advancement of technology have the function of carrying services, so no network is constant, all need to rely on market demand and business needs. Different network structures can be used to transmit different service signals, such as network services have begun to converge in the direction of data-centered development, and the network integrates, converges, and changes to the network form that best groups IP services, so as to obtain more market survival space for its own services. From the perspective of integration, intelligent electronic communication technology can develop in the direction of integration is not only determined by the similarity of technical characteristics, but more importantly, there are similar market needs, and when a variety of services and networks provide different or the same services to the same user, it will lead to technological upgrading and integration, which is an inevitable trend of market competition and an inevitable choice for technological development.

### 3.1.2 Compatibility

How to strengthen the effective use of information resources, how to drive cost savings with core technology transformation, how to strengthen the adaptability of technology to different system terminals, etc. <sup>[7]</sup>. These are the problems that must be considered in the development of intelligent electronic communication technology, according to the rise of new services such as cloud applications, many intelligent terminals have achieved popularization, but also to a certain extent to promote people’s bandwidth and network speed requirements to improve the demand, so in order to make business profitable in the future network communication. It is also necessary to ensure that the computer network can achieve rapidization, so on the basis of technology can adapt to a variety of market needs, system network performance and hardware, as far as possible to meet the development and use needs of many parties, such as consumer application requirements, operators’ energy-saving green needs, etc., so in the future, in order to further improve social production efficiency, get more profit margins, intelligent electronic communication technology will also move towards compatibility,

while ensuring that the system can operate normally and reliably, R & D developers should also improve the flexibility of network equipment and network technology, pay attention to the research and development of green and safe network technology, and take intelligent electronic communication technology as the core to achieve service upgrading and service launch.

## 3.2 The Impact of Electronic Communication on Life

### 3.2.1 Positive Impact on Modern Cities

It improves the efficiency and scientificity of the overall planning of the city, and makes the industrial structure of the city undergo tremendous changes, especially the function of the information center of the large city is increasingly strengthened, which solves the city’s traffic problem and solves the problem of urban traffic congestion, “treating the symptoms and the root cause”. The city’s buildings have become intelligent, intelligent building office automation, communication automation, and even urban management and monitoring means are information, involving a wide range, decision-making is more scientific, meticulous and timely, with the help of such a computer network, the management of the city and the development of the city is on the road of “rule of law”, not “rule of people” <sup>[8]</sup>. At the same time, it has changed the communication and lifestyle of urban people in an all-round way, especially “distance teaching”, “online shopping”, “medical treatment” and “entertainment” have become diversified and diverse, and participation in government affairs has become democratic, open and transparent. Urban planning and urban construction are governed under the concept of e-commerce, reflecting the scientific, systematic and ecological ideas of earth information, so that the city’s industrial structure has undergone important changes, the service industry has been vigorous and informatization development, the national economy of modern manufacturing is dominated by information technology development and consulting services, electronic communication for work, education, employment, office, school shopping, etc. are greatly expanded, the city’s space presents a diffusion and a certain degree of agglomeration.

### 3.2.2 Negative Impact on Modern Cities

As a modern information technology, the development of electronic communication technology itself is a double-edged sword. On the one hand, it will bring light to people’s future and make us look forward <sup>[9]</sup>. However, it has to be said that the other side of the coin is that electronic communication will cast a dark cloud over our

future, and we will inevitably worry and worry. The development of electronic communication may aggravate the further deterioration of the human ecological environment and become unbearable. With the prominence of the problem of social isolation, the human information environment will face many privacy infringement problems, information pollution problems, information security and intellectual property rights, and at the same time will make structural unemployment serious, so that the remaining forests, rare animals and plants faster extinction, such a shadow requires the government to effectively manage environmental protection, people must also adhere to the concept of “lifelong learning”, while aggravating the current employment pressure, the gap between urban and rural areas may further expand.

#### 4. Intelligent Development of Electronic Communication System

As with news, communications must be truthful, and reporting must emphasize timeliness, timeliness, and promptness. The existence of a message must have the following basic requirements, one is the authenticity of the matter, the other is the freshness and timeliness of the matter, and the third is the audience of the matter, only in this way will it have the value of communication. The difference between communication and news is that, in terms of subject matter, the selection of materials for messages is very wide, while the selection of materials for communications is more stringent. After years of development, sub-communication has formed a completely dynamic system, in all walks of life its model has been perfected, and electronic information technology in various fields of characteristics include automation, intelligence, integration, miniaturization, efficiency, speed, digitalization, networking and other characteristics<sup>[10]</sup>.

Communication technology is gradually developing towards comprehensive, efficient and broadband. Communication technology includes satellite communication, optical fiber transmission, digital microwave, mobile communication and other corresponding characteristics. As far as low-orbit satellites are concerned, their communication has moved towards the practical application stage, and will be widely used in all walks of life in the future. China is gradually deploying optical fiber cables within the corresponding range to replace copper cables. The technology of mobile communication has developed rapidly, and related technologies and mobile communication have fully replaced analog mobile communication. GPRS plays an irreplaceable role in commercial use. The third-generation international system standard for mobile communication has also entered the comprehensive appli-

cation. The communication system of digital microwave has gradually moved from a synchronous digital system to a synchronous digital series. Broadband access technology has developed faster and has greater bandwidth, and has now reached the G level. WLAN has also begun to be widely used, IP telephony, traditional communication technology and IP technology integration these speeds have gradually accelerated, WEB has become a necessary factor in the future broadband network. IP technology and ATM technology will be integrated and complement each other.

In addition, computer products are the focus of communication technology development and an important part of electronic communication systems, and computer technology is the basis of intelligent electronic communication. Therefore, in the future development process, in addition to continuing to expand the scale of products, we must further improve the comprehensive quality of products and pay attention to the after-sales service of products. With the development of science and technology, the field of intelligent electronic communication pays more attention to the research and development of hardware products and software products, continuously improves the artificial intelligence level of products, and accurately simulates human brain thinking. At the same time, China should also pay attention to the cultivation of communication technology talents and gradually develop the communication industry into a pillar industry of the national economy. In the process of the development of intelligent electronic communication technology, it is necessary to further optimize and adjust the internal structure of the communication industry, rationally allocate all kinds of communication resources, actively transform basic equipment, add more electronic equipment on the basis of the original equipment, avoid the waste of resources, and effectively improve communication efficiency. In addition, the large-scale communication industry can also be taken as the center, driving the development of computer products, electronic products, software technology and other related industries, so that they support and promote each other, and form a complete industrial chain to improve the intelligent level of electronic communication technology and create better economic and social benefits. In addition, relevant departments should also pay attention to the development of the electronic communications market in the western region and solve the problem of imbalance in technological development. In view of this, more R & D bases can be built in the western region, in-depth study of intelligent electronic communication technology, and continuously improve the efficiency of information transmission and the anti-interference ability during the operation



of the information transmission system, so as to provide more convenient services for people's production and life.

## 5. Conclusions

The communication industry is the basis of social production and life, and has a very important impact on people's work and life. In the future period, China's communication industry will develop in a more intelligent direction. A variety of advanced computer hardware products and software products will provide more support for computer technology, and the system can also imitate the human brain to classify and process the received messages, reducing the dependence on staff. In the future, electronic technology in the field of intelligent development space will be very large, and professional R & D personnel must be targeted analysis of the market. Only by constantly tapping people's potential market demand, can we really deliver intelligent electronic communication to a new height.

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