Research on the Relationship between Computer Network and Economic Development in Information Environment

Wenfu Yang¹,*

¹College of Internet of Things, Jiangxi Teachers College, JTC, Yingtan, Jiangxi, China, 335000

*Corresponding author e-mail: yangwenfu@jxsfgz.edu.com

Abstract. In the past two centuries, computer technology has entered a period of rapid development. Through the continuous efforts of researchers and engineers, computer technology has been involved in all aspects of people's lives. In the economic aspect, computer technology, with its unique characteristics, has brought new opportunities as well as challenges to the development of China's economy. But on the whole, computer technology has played a role in promoting economic development. Enterprises should actively apply this technology to the operation of the company to form a new company in the information age.

Keywords: Computer Network, Economic Development, Information Age

1. The development of computer network

Computer network is the product of the combination of modern communication technology and computer technology. Computer network is to connect computers distributed in different geographical areas and special external equipment with communication lines into a large-scale and powerful network system. This makes it convenient for many computers to transmit information to each other and share hardware, software, data information and other resources. In popular terms, a network is a collection of computers interconnected through cables, telephone lines, or wireless communications¹.

Network technology refers to the computer technology that uses certain communication protocols to connect multiple independent computer systems distributed in different locations together through communication lines, so as to realize the sharing of data and services. Network technology organically combines computer technology with communication technology to form a new way of communication. It integrates the scattered resources on the Internet into an organic whole, so as to achieve the comprehensive sharing and organic cooperation of resources, so that people can use the overall ability of resources transparently and obtain information according to demand. The fundamental feature of the network is not necessarily its size, but that it realizes the sharing of resources. At present, according to the scale, computer networks can be divided into three types: Metropolitan area Network, Local area Network and wide area Network².

Although the development of network technology in China is very fast, there is still a large gap in the overall national quality between our country and the developed countries, so there are still great challenges in the popularization of network technology. The development of network economy needs
a group of high-quality talents with certain learning ability. Therefore, our country should actively strengthen the training and education of network economy talents. At the same time, we should pay attention to improving the overall quality of the whole people, improving the utilization rate of network technology and promoting the rapid development of network economy.

2. The relationship between computer network and economic development

Figure 1. The relationship between computer network and economic development.

Computer network technology invades various industries at a rapid speed. No matter in which field, efforts are being made to realize the combination of management and computer, operation and computer, sales and computer, and so on. All these further affirm the important position of computer network in today's world. This also gradually puts the training of computer talents in a pivotal position. In order to maximize economic benefits, enterprises introduce a large number of advanced technologies for daily management and normal operation.

The use of cloud technology can realize the integrated management of infrastructure platform and software, fully integrate and utilize resources such as memory and Internet, and provide the best teaching resources for teachers and students. The higher mathematics teaching platform based on cloud technology can save a lot of hardware purchase cost and human resource cost due to facility update. Cloud Computing supports normal access of hardware equipment with lower configuration. In addition, cloud computing can reduce the dependence on high-performance hardware equipment. In order to save the investment of Higher Vocational Colleges in this respect, the college can also expand by purchasing a part of low-end hardware equipment. Thus, the application of cloud technology can save a huge amount of hardware facilities purchase cost for higher vocational colleges.

2.1. Computer technology has led to the emergence of a new economy—network economy

The rapid development of network technology has given birth to network economy, which is a new economic form that depends on modern information technology. It is based on the informationization of the national economy, through the integration and use of a variety of enterprise information and network technology, relying on the enterprise information network to carry out dynamic business activities. The network economy has changed the traditional enterprise marketing mode and concept, but it is not a kind of pure "virtual" economy which is independent of the traditional economy and opposed to the traditional economy. In fact, network economy is an advanced economic development form based on traditional economy and making full use of modern information technology.

In China, people have formed an ecology that accepts and gradually depends on the Internet. The close combination of network economy and e-commerce has created a broader platform for people. In this way, a large-scale network service system is formed, which integrates virtual transaction, network bank, network enterprise, third-party payment platform and so on. Here, consumers can choose what they like and make comments.

2.2. The development of economic level also promotes the upgrading of computer network technology
From a dialectical point of view of the relationship between economic development and computer network technology, we can clearly understand that they complement each other, promote and restrict each other. The booming e-commerce industry and the emergence of e-money and e-government gradually put forward more new requirements for computer network technology. This is a great challenge to the current development of computer technology. This not only requires people to constantly improve the relevant technology, but also on the original basis, strengthen security precautions and improve the reliability of computer network technology[3].

At present, the widely used computer network technology has been unable to meet the needs of the broad masses of people. People are eager to find the goods they are satisfied with in the shortest possible time. Coupled with the huge number of visits every day, in order to prevent network congestion and customer information leakage and other problems, the current computer network technology needs to further improve its own work efficiency.

3. The influence of modern network technology on economic development

![Figure 2. The influence of the development of computer network on the current economy.](image)

3.1. Computer technology has injected new vitality into economic growth

Modern society is an information society, and mastering the latest information is the foundation for enterprises to gain a foothold. With the emergence of computer technology, the economic growth point of enterprises has also begun to change, and service-oriented economy has become the focus of enterprises. In this context, enterprises will not only pay attention to their own product quality, but also pay more attention to customer communication, product promotion and the construction of service system. Computer technology has also given rise to many new industries, especially e-commerce with computer technology as the core[4].

In addition, the mode of production organization under computer technology has changed. According to the new growth theory, to a certain extent, the accumulation of information and knowledge in the spillover effect can be used repeatedly, which has a positive impact on the development of enterprises.

3.2. Computer technology has improved the business environment of enterprises

Enterprise management has a direct impact on the overall operation of the enterprise. In the traditional management mode, human resource management determines its operation. Human resources management is complex, lack of computer support, the concept of managers, management programs are difficult to implement. Therefore, it is inevitable that there is some management confusion. In the era of computer economy, many enterprises have fully played their important role, taking the computer as an important means of manpower arrangement and deployment, so as to correctly direct and manage the human and material resources of the enterprise[5].

Computer information technology also has an impact on the decision-making of enterprise managers. With the in-depth development of computer network technology, the continuous emergence of computer science has broken the traditional product production technology and
management mode in our country. It can ensure that the production of enterprise products to a greater extent to meet the needs of customers. Taking the computer as the auxiliary equipment for the development of enterprises can realize the sharing of market information and technology and promote the overall economic development of our country.

3.3. Network technology can effectively improve the quality of industry
The network has become an important environment for business communication and daily communication between people. Online dealers can bargain with manufacturers to make the price more transparent and reduce communication errors. In addition, the computer has changed the traditional management concept and reduced the operating cost of the enterprise[6].

For traditional enterprises, through computer technology, enterprises can have a deeper understanding of customers, understand products, and understand market trends, and formulate reasonable procurement and marketing plans. The traditional mode of operation is prone to local economic protection. With the emergence of computers, market competition is increasing rather than decreasing, enterprises are bound to constantly update their own service system and improve product quality. To a certain extent, China's product production and marketing are in a virtuous circle. Enterprises seek development by establishing an image. Once enterprises do not make a correct analysis of market information and customers, they will encounter great difficulties or even face elimination in the course of development.

4. Conclusion
Nowadays, people cannot live and work without computers. In the process of the development of market economy, the emergence of computer is inevitable. With the continuous progress of network technology, China's economy is booming. In turn, the development of economy puts forward new requirements for network technology. In practical work, relevant scientific and technical personnel should firmly grasp the network technology to further promote economic prosperity. Network information technology provides a new way for economic development and brings new opportunities and challenges. The business model of enterprises has changed, and there are more profit growth points. As far as enterprises are concerned, operators should learn to give full play to the positive role of computers and establish a new enterprise operation model. In addition, there is a lack of computer professionals in our country, so the state should pay attention to the training of talents in the new era and make them play a positive role in the development of enterprises.

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