The Current Situation and Future Trend of Network Technology under the Background of "Internet +"

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Abstract: In view of the continuous development of Internet technology, Internet + is the further distillation of Internet application technology. It accelerates the deep integration of Internet and economy and society, and to lead the innovation and development of economy and society. By analyzing the important role and basic application of the network technology environment for information integration, it puts forward its own opinions for the further upgrade of communication engineering. Research shows that under the background of "Internet +", the role of Internet information dissemination has gradually become a new factor to promote economic and social entity management, promote production, and continuously innovate economic methods. At present, the Internet application field is facing various huge challenges, including the super-large-scale network, the heterogeneity of various networks and the current demand for super-high performance of the network.

1. Introduction

"Internet +" refers to a set of information technology based on the Internet (including mobile Internet, cloud computing, big data technology, etc.) The process of diffusion and application in various sectors of economic and social life is a brand-new economic form, which integrates the innovative achievements of the Internet with all walks of life skillfully by using mobile Internet technology [1]. To improve users' loyalty to the Internet, we should start from two aspects. The first is to increase the conversion cost. When electronic merchants conduct transactions, they should not only provide high-quality services for consumers, but also strengthen the loyalty of consumers to merchants. The emergence of mobile Internet has greatly reduced the cost of conversion. On this basis, businesses should establish conversion channels, such as membership card points discount, gifts, etc [2]. Let consumers feel that the cost of replacing products or services is not cost-effective, and then actively give up the conversion, which has strengthened consumer loyalty to merchants to a certain extent. The Internet should be regarded as a core element of economic and social development. By promoting the integration of industries, the reconstruction of industrial structure should be realized, and the value of interconnection and interoperability should be maximized. This paper systematically elaborates on the status quo of network technology development and future development trends under the background of "Internet +" [3].

In 2015, the risk awareness of optical network size labeling under sleep mode was put forward by relevant scholars [4]. In the same year, using temporal and spatial variations to avoid WiFi interference in ZigBee networks has been studied by relevant scholars [5]. Since 2016, channel estimation for OFDM systems using neural network technology and genetic algorithm has been proposed by relevant scholars [6]. The Internet has gone through four stages in China, the germination stage, growth stage, rapid development stage and stable development stage. In the first stage, the field of Internet application is very narrow. It is only used for professional purposes (such as specialized research institutions). The main corresponding demand areas are education and scientific research. An obvious sign is that operators occupy an absolute monopoly position, and only the main nodes and terminals enjoy network resources nationwide. At this stage, the business model in the Internet is quietly taking shape [7]. The evolution has led to a new concept of personalized service, open industry chain, innovation, crowd sourcing, public demand and manufacturing consumers. The new role and the new model gradually influence the main value

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direction of the economy and society, creating a new competitive situation and comparative advantage [8]. Cross-border integration and infiltration has now developed into a long-term mechanism for economic, social and economic improvement. Through such channels, many new fields, new formats, new scientific and technological means and new models have been born [9]. Promoting the transformation and upgrading of all walks of life, human economic production and social lifestyle are undergoing profound changes, new ideas, new models, new roles, etc., such as synergy, intelligence, green, service-oriented manufacturing, personalized customization, transparent supply chain, innovation, crowd-sourcing, public demand, and production consumers. It is profoundly affecting the core value orientation of the economy and society. Form new competitive advantages and comparative advantages. Cross-border integration and penetration has become the norm of economic and social development, which has spawned new industries, new formats, new technologies and new models [10].

2. Materials and Methods

China attaches great importance to the development of the Internet. In July 2015, China promulgated the Guiding Opinions of the State Council on Actively Promoting the Action of "Internet+", this is to give full play to the scale and application advantages of China's Internet, to promote the expansion of the Internet from the consumption field to the production field, and to accelerate the upgrading of industrial development level. Strategic measures to enhance the innovation capabilities of all walks of life and build new advantages and new kinetic energy for economic and social development. Make a huge difference in the form of Internet services, Internet applications, and user access. In the "Internet +" background, the ultimate goal of users accessing the network is more clearly reflected. Getting what you want is not something that is messy, and this direction is leading the way in the modern mobile Internet. The basic characteristics of the mobile Internet are shown in Table 1.

Table 1 Basic Characteristics of Mobile Internet

	Obtain	Influence
Terminal mobility	11.23	5.88
Business timeliness	12.54	6.72
Service Convenience	12.09	5.46
Relevance of Network	11.97	6.34

The rapid promotion of "Internet + brings more and more users to the Internet. The economic society and the intimacy of the Internet are getting more and closer. In addition, higher and higher standards have been put forward in terms of Internet performance and Internet control. The key idea of SDN is to connect the control plane and the data plane of Internet facilities. The forwarding function is embodied in the switching equipment, and the control function is realized by the controller responsible for the overall information of the Internet. Controller uses programming to complete the strategy of personalization and dynamic deployment. Form a broader new form of economic and social development based on Internet infrastructure and innovation factors. "Internet +" objectively requires the full use of the Internet platform, based on information and communication technology, deep integration of the Internet and various industries including traditional industries. Promote mobile internet, cloud computing, big data. With the in-depth development of Internet technology, the service level of traditional e-commerce has been greatly improved. Many service companies have been involved in the new economic system, and people's consumption patterns and ways of thinking have changed.

Integrating Internet and advanced computer technology with mobile phone communication and TV and telephone, we will integrate Internet online education and implement distance education. We should combine higher education with national development to solve the contradiction between the difficulty of employment and the lack of talents for graduates in both directions. Vigorously cultivate Internet information talents. At the same time, the mobile Internet also provides a more

convenient user access mode for the implementation and development of "Internet +", while "Internet +" can provide more opportunities for the development of mobile Internet. In addition, wireless access also provides reliable technical support for convenient access of mobile Internet users. In particular, the popularity of 4G networks and the emergence of 5G networks will further enhance wireless access capabilities. Enable mobile Internet users to experience faster network transmission rates. With the emergence of personalized and differentiated services for mobile Internet, its interactivity has become more and more prominent and perfect. Effectively improve the interactivity and participation of the network. Internet communication molecules are shown in Figure 1. It realizes communication and service acquisition anytime and anywhere, has a secure and reliable authentication mechanism, and can acquire user and terminal information in time. The business end-to-end process is controllable. Disadvantages mainly include the scarcity of wireless spectrum resources; user data security and privacy; lack of unified standards for mobile terminal hardware and software, and poor service interoperability.

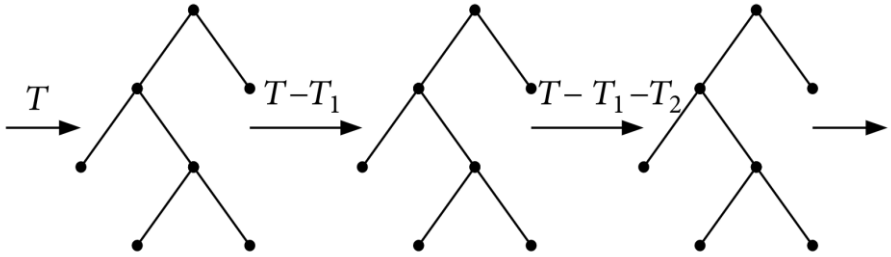

Fig.1. Internet communicators

3. Result Analysis and Discussion

In accelerating the new round of international economic revolution, information technology also accelerates the new generation of industrial technology revolution. Today's industrial manufacturing systems have evolved more and more complex. Integration is increasing, and network connections are also getting stronger and stronger. The connection between industry and network has now become the aspiration of the people. Through information technology means to enhance the interconnection of the systems, complete the Internet, system and integrity, and change the traditional manufacturing form. Initially becoming a key infrastructure to support the development of intelligent manufacturing, the Internet has become an important support platform for mass entrepreneurship and innovation. The next generation of national information infrastructure with broadband, integration, ubiquity and security will be basically established, and a new generation of information technology industry system with independent controllability will be formed. The security of the network is shown in Figure 2.

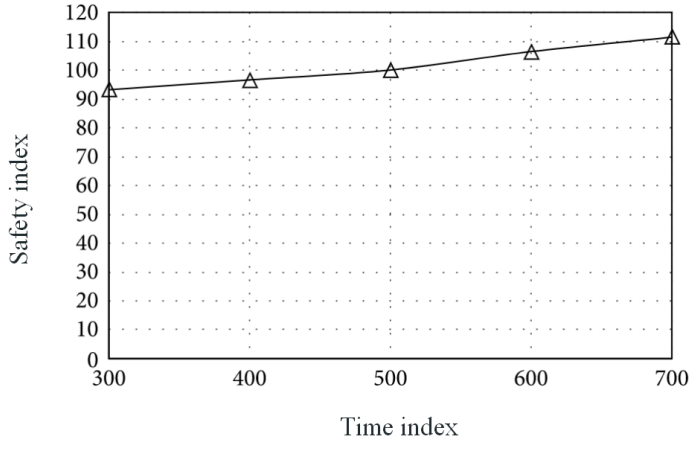

Fig.2. Network Security

The technological revolution promoted by information technology has gradually become the booster of a new round of industrial revolution. With the increasing complexity and integration of industrial production systems, the integration of Internet and industrial production is the trend. The information technology is used to strengthen the interconnection and integration among industrial production systems, and realize the network in an all-round way. Intelligent development is the fundamental goal of improving production management, changing production mode and improving production efficiency. It is also one of the core goals of "Internet +" development. Relevant government agencies and Internet operators should attach importance to this issue, and take local network construction as the primary task. The coverage of the Internet has been significantly improved, and the current situation of network coverage differences between regions has been continuously improved, enabling residents in all regions to experience the network economy first-hand. Secondly, the application of the Internet at this stage is mainly realized by 4G networks and smart phones, although the current smart phones and networks have been largely popularized. However, because of its relatively high cost, it has great limitations in its development. Relatively speaking, people are more inclined to wireless networks with lower costs.

The goal of "Internet+" is to realize the deep integration of Internet and all walks of life". This will inevitably lead to the diversification of network traffic types and explosive growth of traffic, and bring profound changes in network services, network applications and user access modes. The number of users will surely increase rapidly, and the development of the Internet will surely grow more and more. There is an urgent need for flexible and active Internet management and control. The Internet no longer only stays in the part of information consumption. This is in line with the general industrial, commercial and economic sectors, and it is not just accelerating the promotion of traditional areas. And nurturing new areas, the growing scope of use and the industry is unprecedented, objectively requires the Internet to provide multiple types of services for different needs. The current level of the Internet in the economy and society has made the size of the Internet and data processing more and more rapid. At the same time, it is necessary to combine the needs of different industries and individuals in the "Internet +" context for network applications to provide personalized network applications. And according to the needs of users, we design more customized and customized network applications to meet the different needs of users for network applications.

4. Conclusion

This paper studies the development status and future trend of network technology under the background of "Internet +". The integration of the Internet with many industries, especially in the production field, is still quite elementary, and the existing technology cannot fully meet the requirements of "Internet+" for network super-large-scale, super-heterogeneous, super-high performance and super-security". The network can select the transmission path that meets the requirements according to the situation and the needs of users, and arrange the transmission control mechanism that meets the requirements online and in real time according to the needs. Just like, you can use multi-path transmission mechanism to support high-reliability fault-tolerant transmission, network load balancing, route round-trip, and route fault tolerance. With the continuous attention and input of "Internet+" in academia and industry, network solutions, key technologies and application models in the innovative "Internet +" environment will continue to emerge, thus promoting the application and development of "Internet +", the need for ultra-large-scale, ultra-high-energy, super-heterogeneous, super-secure, and network-specific, customized, and customized networks. Therefore, the academic community should base on "Internet +" and continuously increase the research and development of network technology. Capital investment. Continuously improve various key technologies and application modes of the network, and make more contributions to the application and development of "Internet +".

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