

# *Analysis of the Influence Path of Digital Infrastructure on Economic Development*

Xiaoyang Mao<sup>1,a,\*</sup>

<sup>1</sup>Northwest University, School of Economics and Management, Shaanxi, Xi'an, China, 710127  
a. maoxiaoyang@stumail.nwu.edu.cn

\*corresponding author

**Abstract:** With the progress and development of science and technology, the wave of digital civilization characterized by digitalization and networking has brought about a major change in economic development, society and life style. The booming development of the digital economy has promoted the construction wave of the digital economy infrastructure. Digital infrastructure, as a channel of data circulation and a necessary element of the in-depth development of digital economy, has become an important development direction and investment direction of the development of digital economy, and has also attracted the attention of the country and the government. After summarizing the relationship between predecessors and digital infrastructure, digital economy and economic development, this paper analyzes the specific mechanism of digital economy to economic development from the macro level, and changes the traditional factor utilization mode and factor form by analyzing digital infrastructure. It analyzes how the digital infrastructure affects the development of the economy. At the same time, the difficulties of the current digital infrastructure construction are also analyzed, and the relevant suggestions are put forward.

**Keywords:** digital economy, digital infrastructure, economic development

## 1. Introduction

Jeremy published in 2011, the third industrial revolution, the new economic model how to change the world, he reference of the first two industrial revolution of productivity and production relations and the profound economic pattern, thinking that with the generation of new energy and new technology, the human society will face the advent of a major economic transformation in the near future. Therefore, he believes that the integration of network information technology and renewable energy will promote the arrival of the third industrial revolution, produce the new economic model of sharing economy, impact the existing capitalist system and mode of production, and promote the major change of the economic pattern. In recent years, with the rapid development of digital technology, the digital economy has become a new form of economy, and has also contributed more and more forces to the economic development. As a new economic form, the digital economy is typically characterized by its dependence on the digital infrastructure. With the development of technology level, the dividends brought by digital economy are constantly highlighted, and the developed economies around the world have established relevant policies for developing digital economy since the beginning of the 21st century. In September 1993, the Clinton administration established the "National Information Infrastructure Action Plan". Similarly, the Obama and Trump administrations also set

American goals for the development of the digital economy. The British government set plans for Digital Britain back in 2009. And Japan, Singapore and other countries have also established the strategy of IT establishment. China is also paying more and more attention to the development of the digital economy and digital infrastructure. China is both a major infrastructure country and a major digital economy country, with the world's largest 5G network and the number of Internet users in the world. The overall scale of China's digital economy has expanded from 2.6 trillion yuan in 2005 to 39,455 trillion yuan in 2021, and the digital economy's share in GDP has increased from 14.2 percent to 39.8 percent. Digital economy has become a huge force driving economic development [1]. At the same time, the Party and the country also attach great importance to the development of the digital economy. However, there are also theoretical and practical problems in the process of developing digital economy and building digital infrastructure. First of all, with the acceleration of digital infrastructure construction and technological update, will Baumol's cost disease occur due to saturation? And how should people view the transmission path of digital infrastructure affecting economic development? At the same time, how to properly handle the financing and inclusion of digital infrastructure as a public good is a major challenge for us. The correct analysis of the relationship between these elements is also the key to promote the further development of digital infrastructure. Therefore, it is necessary to study digital infrastructure through qualitative analysis for digital economy and economic development.

## 2. Literature Review

The "Broadband China Strategy" implemented in 2013 aims to strengthen the construction of network infrastructure with broadband as an example, and promote the popularization of the Internet by increasing broadband access users and improving broadband access capacity, so as to expand a series of industries such as e-commerce and mobile payment relying on the Internet. The 14th Five-year National Informatization Plan also gives enough attention to the construction of China's digital economic system. Digital infrastructure, relying on the level of technology, is also constantly developing. In the process of development, the promotion and application of new technologies have also attracted great attention. In recent years, along with the development and promotion of 5G applications, in order to promote the large-scale development and commercial use of 5G applications. In 2020, China deployed a series of digital economy construction plans. The 19th National Congress of the Communist Party of China clearly pointed out that "we should speed up the digitalization process, achieve full coverage of information services and improve the digital skills of the whole people", which is intended to promote the popularization and development of digital infrastructure construction. In July 2021, the Ministry of Industry and Information Technology of China, together with the Cyberspace Administration of the CPC Central Committee and the National Development and Reform Commission, issued the Sailing Action Plan for 5G Applications (2021-2023). The plan mainly emphasizes promoting the integration of 5G and other information technologies, and pays attention to the role of 5G in industrial development and forming tangible benefits. Meanwhile, it requires the promotion of 5G infrastructure construction and the government to solve the problems related to the implementation of 5G [2]. In the face of the huge dividends brought by the digital economy, the construction and popularization of the local digital economy and digital infrastructure are also in full swing. Taking Shaanxi Province as an example, in the first half of 2022, the telecom business revenue of Shaanxi province increased by 9.6% year on year to 21.65 billion yuan. The number of 5G base stations per 10,000 people in Shaanxi Province reached 12.7, up 20.96% year on year. A total of 49,000 kilometers of optical cable lines were added, up 8.4 percent year on year, 104,000 optical fiber ports to households were added, and 11,900 new 5G base stations were built [3]. The digital industry and all regions have witnessed steady development of digital economy, steady progress in digital infrastructure construction, continuous improvement of network coverage capacity and steady growth of user

scale. In the future, the digital economy will fully empower related industries through digital infrastructure, so as to promote the development of the overall economy and form a positive cycle.

Existing research on the digital economy, digital infrastructure, and the relationship between economic growth focuses on the following aspects. The first is to analyze the impact of digital infrastructure construction on China's specific industrial structure from an empirical perspective. "The broadband China strategy can directly promote the upgrading of the service industry structure through the effect of technological innovation and the effect of human capital" [4].

The second aspect is to study the impact of digital infrastructure on the behavior of market entities, such as enterprises and governments. Zhang Hui and other scholars analyzed that the construction of digital infrastructure can promote the technological innovation of manufacturing enterprises [5]. Guo Jinhua and others conducted quasi-natural experiments based on the broadband China strategy, and analyzed the huge role of digital infrastructure construction in improving the total factor productivity of enterprises, especially state-owned enterprises [6]. Chao Xiaojing and other scholars studied the impact of digital infrastructure on high-quality development, and concluded the role of new digital infrastructure in promoting high-quality development of manufacturing industry, mainly through the two paths of upgrading manufacturing and improving market distribution [7]. Combine chao Xiaojing in another article. For the analysis of listed companies in the industry, we can know that this "upgraded manufacturing" effect is mainly through the research and innovation effect of knowledge innovation, the synergistic effect of production process optimization and collaborative production [8]. Li Nan and other scholars found that the construction of new digital infrastructure has a significant role in improving the domestic added value of manufacturing enterprises by improving the intensity of product use and reducing the cost of enterprises, thus promoting the export of enterprises [9]. These are focused on the analysis of digital infrastructure on the behavior of market players through factors or other factors.

The third aspect is the study of the impact of specific digital technology on economic development. For example, Liu Liu studied the impact of broadband on China's national economy [10], But the lack of sufficient theoretical support, but also the lack of a clear empirical analysis. An Shiquan, Liu Mingjun, etc., analyzed the relationship between telecom communication capacity and economic growth through empirical analysis. They analyzed the telecommunication communication capacity through long-distance telephone exchange capacity, mobile telephone exchange capacity, optical cable line length and Internet broadband access port [11]. However, with the development of technology, the traditional index of basic telecom communication capacity is no longer well matching the existing digital economy environment, and does not extend a specific technology to the height of digital infrastructure construction.

The fourth aspect is to study the impact of digital infrastructure on the elements of economic development. Such as Xu Xue studied in the labor level, the author thinks that digital infrastructure through perfecting the formal education and extension channels —— "digital infrastructure can improve the level of individual extended human capital, promote income growth, and reduce the income gap between income groups, but the income gap between urban and rural areas effective convergence depends on basic human capital level" [12]. And such as digital economy for enterprise total factor productivity, innovation ability, technology level research, research also found the traditional transportation infrastructure, government attention, human capital level for the influence of technological innovation, formed in the digital infrastructure and digital economy elements of the closed loop, and the international scope of the influence of the digital economy on export trade [13].

Based on this, this paper analyzes the impact of digital infrastructure on economic development from the theoretical level. In this process, this paper will not only focus on the digital infrastructure, through the use mode of innovative elements and the important influence of innovative elements on

economic development, but also inspired by the current governance model, focus on the boundary of the current market subject, the important role of digital governance.

### **3. Methodology: How the Digital Infrastructure Affects Economic Development**

This paper believes that to analyze the way of digital infrastructure affecting economic development, I should first analyze the characteristics of the existing digital infrastructure. The next step is to analyze the impact of digital infrastructure construction on production factors, regional coordinated development and development subjects respectively.

#### **3.1. Infrastructure for Economic Growth**

The research on the role of infrastructure in economic community has a long history, especially after the emergence of development economics as an important research field in economics, the research on the role of infrastructure in economic growth has made outstanding progress. Early economists used infrastructure as part of their capital, such as early mercantilists advocated the improvement of domestic transportation infrastructure, such as ports and roads, to promote the development of domestic and foreign markets [14]. Similarly, early physiocrats also used infrastructure as part of production capital through the concepts of "annual prepayment" and "original prepayment" [15]. Friedrich List, the representative of the German historical school, attached great importance to the development of infrastructure represented by the railway, and believed that the construction of infrastructure could greatly promote the development of productive forces [16]. Based on this, he strongly advocated the country to nationalize the railway. Pigou, a representative of welfare economics, also focuses about the impact of infrastructure construction on welfare level [17].

With the development of development economics, American economist Rosenstein Rodan put forward the famous theory of great promotion [18]. He believed that the priority investment in infrastructure can accelerate economic growth, especially emphasizing that the construction of infrastructure should have a long-term perspective, and in the long run, the government needs to have a stable plan for the infrastructure construction. Hirschman's view is that the development of infrastructure needs the role of the market more, and the government only has the role of "causing investment" [19]. But no matter who ultimately promotes infrastructure development, these economists all attach great importance to the favorable impact of infrastructure on the economy. In Rostow's analysis, he believed that infrastructure was the basis for rapid productivity growth and economic growth [20]. With the development of the times, more and more people pay attention to the benefit theory of infrastructure, specifically, including the promoting role of stimulating production and the bottleneck role of restricting further development. Therefore, a worldwide theory on infrastructure research is still ongoing.

There are many infrastructure research on economic growth. Digital infrastructure, as a product of the development of the times and the application of new technologies, has similarities and differences with traditional infrastructure. Therefore, it is particularly necessary to study the impact of digital infrastructure on economic development.

#### **3.2. The Characteristics of the Digital Infrastructure**

As a part of traditional infrastructure construction, digital infrastructure construction has two economic impacts, namely, the impact on productivity and the overall technological level represented as part of technological progress. The traditional classical growth theory summarizes the progress of infrastructure construction into exogenous technological progress; the endogenous growth theory of infrastructure as an effect on productivity. Therefore, considering the construction of digital infrastructure, I should first analyze it in the context of infrastructure construction.

From the perspective of classifying pure public goods and quasi-public goods, the marginal cost of digital infrastructure tends to be zero infinitely and the marginal crowding cost is zero. First, each additional consumer does not significantly increase the cost of building digital infrastructure such as base stations; while the current operational capacity of one consumer does not affect the quantity and quality of other consumers. Therefore, so a lot of old research regard the digital infrastructure as a pure public good. When digital infrastructure is a pure public product and "changed traditional infrastructure", its characteristics are different from traditional infrastructure. First, digital infrastructure has wide coverage, low loss rate and does not have the exclusivity of traditional public goods among users who use digital infrastructure. Meanwhile, the larger the coverage of digital infrastructure, the more information and resources individual users can get from it, which makes the more significant the effect of increasing scale.

### 3.3. The Impact of Digital Infrastructure on Production Factors

First, digital infrastructure can promote economic development by attracting capital agglomeration and talent agglomeration. This point can be understood from two aspects: First, capital and talent, as important factors of production affecting economic development, play an important role in promoting economic development. Secondly, I can understand this phenomenon from the perspective of regional economics, namely, the nonequilibrium force and the cyclic cumulative causality rate. If digital infrastructure is better, it means living here is cheaper and more convenient. This allows labor to move here, and when labor increases here, it will also allow capital to invest extensively here. The accumulation of factors makes the advantages of this place continuously expand, forming economic benefits and promoting economic development.

Second, digital infrastructure can reduce enterprise costs and promote enterprise innovation. In the traditional mode, there are certain obstacles to obtain trading information. However, the construction of digital infrastructure enables the information transaction to be carried out in the digital mode or on the network, which reduces the transaction cost and improves the availability of information elements. For example, e-bao, such as Alipay can sign online contracts, which significantly reduces the transaction cost under the traditional mode. At the same time, in terms of labor training, the construction of digital infrastructure also has a significant cost reduction effect. Traditional human capital mainly obtains knowledge through the basic education provided by the state or through independent learning in work and life. The existence of the Internet enhances the ability of the labor force to acquire knowledge independently, and reduces the cost of enterprises specializing in labor training. At the same time, the extensive use of digital infrastructure also makes it inevitable for the labor force to improve their personal ability to adapt to the environment of the digital economy. In turn, the extensive application of digital infrastructure also promotes the independent learning of the labor force to expand the value of human capital. At the same time, I can also see from the current epidemic and the frequent shutdown of some offline places. Digital infrastructure is of immeasurable value in helping people respond to emergencies and in switching to online office or teaching activities. According to statistics, the scale of mobile online education increased from 53.03 million in 2015 to 340.73 million in 2020, and the user usage of mobile online interactive online education increased from 8.6% in 2015 to 34.6% in 2020 [21].

Digital infrastructure can also improve the availability and utilization of factors, and innovate the forms of labor, capital and finance. In addition to significantly reducing the cost of factor transactions, digital infrastructure can also promote the digitalization of traditional industries and improve the utilization of factors. According to statistics, in 2021, China's integrated application of industrial Internet expanded to 45 major categories of the national economy exceeding 1000 billion yuan. The level of enterprises "using the cloud" is continuously improved, reducing the cost of related manufacturing enterprises by 17.6% and increasing the revenue by 22.6%. This move has also given birth to new

consumption patterns and new employment space. Human capital can participate in employment through online employment such as e-commerce. At the same time, under the impact of the epidemic, online entertainment and online fitness are becoming new driving forces and new space for the recovery growth of consumption [22].

### **3.4. Impact of Digital Infrastructure on Coordinated Development between Regions**

The construction of digital infrastructure can also promote economic development by promoting a more balanced economic structure, which is reflected in the unique role of digital infrastructure in promoting the balance between urban and rural areas and the balance between regions. In traditional infrastructure construction, transportation, labor, distance to raw materials or consumer markets are often a priority. However, digital infrastructure construction is different from traditional infrastructure construction. After the author, the digital infrastructure is divided into the following categories: the first category is the infrastructure for data transmission and transmission, such as optical fiber broadband and base station; the second category is the infrastructure for data processing, such as computing power infrastructure and cloud computing center. Due to its characteristics as a precision instrument, in addition to the population density of the construction site, sometimes other conditions need to be considered, such as temperature, terrain, etc. This means that a traditional development mode with different spatial layout of economic development has emerged: the traditional economic development is not distributed in space, and under the influence of cyclic cumulative causal rate, this phenomenon becomes more and more serious. In the case of labor influx in a certain place, increasing capital investment and increasing per capita income level, the upgrading speed of local infrastructure will inevitably be accelerated, which will also promote the increase of capital and labor force. However, due to the characteristics of digital infrastructure different from traditional infrastructure, its construction in backward areas is conducive to the development of local industries. For example, the construction of a large number of cloud computing centers and data centers in Guizhou has greatly promoted the development of the local related industries, formed an information industrial park gathering related industries, and effectively promoted the local economic development.

The impact of digital infrastructure on promoting coordinated interregional development does not stop there. With the penetration of the digital production and life style into all aspects of the society, the rural areas have also ushered in the wave of digitalization. In May 2019, the Central government issued the Outline of the Strategy for Digital Rural Development. In April 2022, the Cyberspace Administration of the CPC Central Committee, the National Development and Reform Commission and other departments jointly issued the Key Points of Digital Rural Development in 2022. Under the influence of the policy, the construction of rural digital infrastructure is in full swing, which has also driven the development of the rural economy. First, the digital infrastructure can boost agricultural income. As a traditional rural industry, agriculture is the main body of rural production activities. The help of digital infrastructure construction to farmers can be reflected in the production link and sales link. First of all, digital infrastructure helps farmers to timely understand the market conditions and obtain scientific planting knowledge and technology. It can also expand crop sales channels through the network platform to improve product visibility and sales volume. Second, the digital infrastructure can also boost non-farm revenues. The construction of digital infrastructure enables farmers to access high-quality education and improve their human capital value. Another noteworthy phenomenon is that under the wave of digital infrastructure construction, the popularity of the Internet enables farmers to make videos of their production and living processes online to attract attention, both by making video production and by bringing goods. In an empirical analysis of this phenomenon, Zhu Zhiyong et al. found that the construction of digital infrastructure can indeed promote the narrowing of urban-rural income gap; the regional heterogeneity analysis of this study proved that the impact of digital economy on urban-rural income gap is better in southern regions than in northern regions [23]. The

occurrence of this phenomenon may be related to the better development conditions (such as infrastructure, radiation effect in big cities) in southern China than in northern China.

### **3.5. The Influence of Digital Infrastructure on the Division of Subject Boundaries**

Digital infrastructure has an inestimable role in dividing the boundaries of current market entities. Under the mode of digital economy, digital governance and visualization have become a new phenomenon in economic operation. Under the wave of the new outbreak, digital infrastructure not only shaped the health code information sharing around mutual identity pattern, also affected the health code embedded in daily life scene, realize the ability of scale, blue optimal health code data accelerated embedded in the complex social system organized government organization, boundary around the data collection, storage and distribution to divide [24]. The early health code forms are complicated, for example, in Xi'an, Shaanxi province, it does not communicate with other cities in Shaanxi province. With the promotion of the epidemic and the improvement of epidemic prevention, Shaanxi One can be used in the whole province, which is an example of the integration of local management structure of digital infrastructure construction. At the same time, the perfect digital infrastructure can also make it more convenient for online business handling and information disclosure, which can also improve the boundary between the government, enterprises, consumers and other subjects, clarify their respective rights, and improve administrative efficiency. The improvement of digital infrastructure enhances the ability to deal with risks, and digital governance also reduces the cost of governance and improves the efficiency of management.

## **4. The Dilemma of the Digital Infrastructure**

The construction of digital infrastructure also faces a series of problems. One of the typical problems facing today is the financing of the digital infrastructure. With the rapid development of China's digital economy, digital infrastructure is also growing rapidly, so a steady injection of capital is needed. In this case, the financing problem of the digital infrastructure is one of the important challenges facing the long-term and stable development of the digital economy. The debt management of construction and local governments in China is mainly through the mode of encouraging the government to invest in infrastructure and government financing in investment platform. However, the investment needs of rapidly growing digital infrastructure will increase the risk of invisible government debt. Meanwhile, the guarantee accepted by banks is mainly fixed assets such as real estate and equipment, but the construction of digital infrastructure is mainly asset-light with high-tech content, so the financing model of new guarantee mortgage to meet the needs of digital infrastructure construction has not been established [25]. From another point of view, although the digital infrastructure construction has made remarkable achievements, but China still has huge the Internet audience, they not only cannot fully enjoy the digital infrastructure construction of dividends, but also in the background of digital into the daily life, because not good use of digital products, such as epidemic sweep code, underdeveloped areas, hospital network registration and so on facing more and more pressure. I think governments in most of the countries can refer to the 2007 National Science Foundation (NSF) measures, Way of promoting cooperation with the local university government business community, For example, the technology commercialization fund can be used to promote innovative development in the region, Or integrate the improvement of standard digital technology facilities into the goal of assessing the continued development of community housing, For example, the U. S. Department of Commerce and the Department of Agriculture (USDA) should incorporate regional broadband infrastructure into local economic development) Promoting the construction of a universal digital infrastructure and building a digital infrastructure that can fully improve the living standards is an urgent problem that people face to solve.

## 5. Summary and Policy Proposal

On the basis of sorting out the predecessors' influence on economic development of infrastructure and digital infrastructure, this paper analyzes the role of digital infrastructure on economic growth, and specifically analyzes the role of enterprise cost, capital agglomeration, use of elements, regional balanced development, and division of main body boundaries. Overall, digital infrastructure construction has a significant impact on the economy. At present, China's digital infrastructure construction and development is characterized by fast speed and wide range. In this golden period of economic digitalization and digital economy, the next direction is to promote the construction of financing infrastructure and improve people's living quality and economic benefits. Similarly, there are still some problems in the process of development, which require the joint efforts of researchers, scholars and people from all walks of life to constantly explore and innovate.

## References

- [1] China Academy of Information and Communications Technology, *China Digital Economy Development Report 2022* p5
- [2] Ministry of Industry and Information Technology, PRC [https://www.miit.gov.cn/jgsj/txs/wlfz/art/2021/art\\_9eba93e5456a4335a359f230c5564fbc.html](https://www.miit.gov.cn/jgsj/txs/wlfz/art/2021/art_9eba93e5456a4335a359f230c5564fbc.html)
- [3] Shaanxi Provincial information and communication industry continues to promote the healthy and orderly development of the whole industry in the first half of the year [https://shxca.miit.gov.cn/xwzx/gzdt/art/2022/art\\_e82bf506180f4fa5821bf7116109900f.html](https://shxca.miit.gov.cn/xwzx/gzdt/art/2022/art_e82bf506180f4fa5821bf7116109900f.html)
- [4] Yuan Hang, Xia Jiechang. Research on the impact of digital infrastructure construction on the upgrading of service industry structure in China [J]. *Economy horizontal*, 2022(06):85-95. DOI:10.16528/j.cnki.22-1054/f.202206085.
- [5] Zhang Hui, Wang Tianxi, Sun Yong. Digital infrastructure and manufacturing enterprises technology innovation — Based on the perspective of enterprise life cycle [J]. *The Shanghai Economic Research Institute*, and the 2022(08):79-93.
- [6] Guo Jinhua, Guo Maonan, Guo Shufen. How does the digital infrastructure construction affect the total factor productivity of enterprises? — A quasi-natural experiment based on the "Broadband China" strategy [J]. *Securities Market Herald*, 2021 (06): 13-23.
- [7] Chao Xiaojing, Lian Yuan mei, Luo Liu kai. Impact of new digital infrastructure on high-quality development of manufacturing [J]. *Finance and trade research*, 2021,32(10):1-13.
- [8] Chao Xiaojing, Wang Chenwei. The influence of data elements on the high-quality development of manufacturing industry — comes from the empirical evidence from the micro perspective of listed manufacturing companies [J]. *Journal of Zhejiang Gongshang University*, 2022(04):109-122.
- [9] Li Nan, Shi Beibei, Bai Northeast. Will the new digital infrastructure help boost the domestic added value rate of manufacturing exports? — Mechanism analysis and effect test [J]. *Business Research*, 2022(01):12-24. DOI:10.13902/j.cnki.syyj.2022.01.014.
- [10] Liu Liu. Study on the influence of broadband on national economic growth in China [J]. *Financial circles*, 2016(02):19. DOI:10.16266/j.cnki.cn11-4098/f.2016.01.017.
- [11] An Shiquan, Liu Mingjun. Empirical study on the relationship between telecommunication communication capability and economic growth — based on interprovincial panel data from 2003-2008 [J]. *Journal of Chongqing University of Posts and Telecommunications (Social Science Edition)*, 2011,23 (02): 62-65.
- [12] Xu Xuelong, Wang Wen. Can digital infrastructure drive inclusive growth? — Based on the perspective of individual human capital accumulation [J / OL]. *soft science*:1-10[2022-10-06]. <http://kns.cnki.net/kcms/detail/51.1268.g3.20220801.1731.008.html>
- [13] Zhao Xing. Research on the effect of technological innovation in new digital infrastructure [J]. *Statistical studies*, and the 2022,39(04):80-92. DOI:10.19343/j.cnki.11-1302/c.2022.04.006.
- [14] Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*(London: T. Nelson and Sons,1868),282[orig.pub. in 1776]
- [15] *Selected Works of Quinay Economic Works*, 349~350 pages, Beijing, Commercial Press, 1974.
- [16] Friedrich List, *National System of Political Economy* trans. G.A.Matile(Philadelphia, PA: Lippincott,1856), 70-73,181,420 [orig.pub.in1841]
- [17] A. C. Pigou, *The Economics of Welfare*, 4th ed.(London:Macmillan,1932),11[orig.pub.in 1920]



- [18] *Rosenstein Rodan P N. Problems of industrialization of Eastern and South-Eastern Europe[J]. Europr Economic Journal,1943,53(210/211):202-211.*
- [19] *Hirschman, A. O. (1958). The Strategy Of Economic Development[J]. Ekonomisk Tidskrift, 1958, 61(2)*
- [20] *Walt Whitman Rostow, The stages of economic growth[M]. Oxford:England Cambridge University Press,1962:217-219*
- [21] *45 statistical reports on the Development of the Internet in China and 47 statistical reports on the Development of the Internet in China*
- [22] *The Chinese experience in digital infrastructure construction [J]. Modern Finance Guide, 2022 (07): 88-90.*
- [23] *Zhu Zhiyong, Liu Changchang. The impact of digital infrastructure on the urban-rural income gap and its threshold effect [J]. Journal of South China Agricultural University (Social Science Edition), 2022,21 (05): 126-140.*
- [24] *Li Mengying. Digital infrastructure: Structural forces hidden behind health codes —— Based on a visual analysis of health code evolution processes in 31 mainland provinces(autonomous regions and municipalities directly under the Central Government) [J].News reporter, 2022(04):46-59.DOI:10.16057/j.cnki.31-1171/g2.2022.04.009.*
- [25] *Shi Jiawei. Discussion on the dilemma and countermeasures of digital infrastructure investment and financing in China [J]. Modern Business, and 2021(31):98-100*