# Digital Economy and Real Economy Deep Fusion to Promote Changzhou's High Quality Development Path

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***Abstract:*** *Promoting the deep fusion of the digital economy and the real economy is the general trend of the new round of scientific and technological revolution and industrial transformation, and it is also an important starting point for promoting the high quality development of China's economy. Changzhou's digital economy has good basic conditions and needs to make full use of its own advantages, but it also faces many shortcomings that need to be improved urgently, and it is urgent to create a unique digital economy development model. This paper studies the interaction mechanism between digital economy and real economy, analyzes the problem of deep fusion of digital economy and real economy to promote the high-quality development of Changzhou, and puts forward the following paths of deep fusion of digital economy and real economy to promote the high-quality development of Changzhou. First, to strengthen the guidance of innovation and regard innovation as the first driving force for integrated development. Second, to excavate human resources and regard talents as the first resource for integrated development. Third, to release the potential of data and take data as a powerful starting point for integrated development. Forth, to strengthen the platform construction and regard the platform as the core link of integrated development.*

***Keywords:*** *Digital Economy; Real Economy; Deep Fusion; High Quality Development; Path Selection*

## 1. Introduction

Digital economy has become a new economic form after agricultural economy and industrial economy, especially with the fusion and development of mobile Internet, cloud computing, big data and traditional manufacturing, digital economy is becoming an important new growth point. The digital economy is not only a powerful lever for the transformation and upgrading of traditional industries, but also an important driving force for expanding the real economy. With the deep fusion of digital technology and economic and social fields, new products, new models, new industries and new formats continue to emerge, providing a strong impetus for the steady development of the economy and society [1]. Pay attention to the development of digital economy and real economy, implement the strategy of strengthening the country through network and manufacturing, build a digital China and a smart society, give play to the amplification, superposition and multiplication of digital technology and digital economy on the real economy, and promote the integrated development of digital economy and real economy, and make remarkable achievements. Relevant statistics show that in 2022, the scale of digital economy in China has exceeded 50 trillion, accounting for more than 40% of GDP, and it continues to maintain a high growth rate of 10%, which has become a key driving force for stable economic growth.

Since 2022, cities in the Yangtze River Delta region have made plans for this, and Suzhou and Wuxi have made special arrangements to further accelerate the pace of seizing strategic opportunities for digital economy development. Changzhou's 14th Five-Year Plan puts forward the "532" development strategy, which includes five major axes, three centers and two demonstration areas, so as to accumulate the innovative explosive force of building a famous international city, enhance the comprehensive energy level of the axis hub in the Yangtze River Delta, promote common prosperity and promote the construction of new Changzhou. High-quality digital economy is the key to development, digitalization can lead the transformation and upgrading of traditional manufacturing enterprises, and digitalization has amplification, superposition and multiplication effects on Changzhou's economic and social development [2]. Changzhou has good basic conditions for the development of digital economy. It needs to make full use of its own advantages and deeply integrate

into the "Digital Yangtze River Delta", but it also faces many shortcomings that need to be improved urgently. It is urgent to create a unique development model of digital economy and build a new pattern of high-quality development of digital economy.

In 2023, the Changzhou Municipal Government's work report also emphasized that it should seize the commanding heights of digital economy development and implement the "100 Thousand" project of intelligent transformation and digital transformation [3]. Through the research of this topic, we will clarify the theoretical connotation of high-quality development of digital economy and real economy, make every effort to build a highland of digital technology innovation, digital industry development, digital society construction and digital open cooperation, change the economic development model of high energy consumption and low output that Changzhou has always used, and turn to a development model that relies on the fusion ability and production capacity of digital economic resources, and play a leading role in promoting high-quality economic development in the city. The research results provide fundamental guidance for Changzhou to promote the fusion and development of digital economy and real economy in the new era, and provide complete solutions for Changzhou to develop digital economy and real economy on the new journey of modernization and build new advantages for development.

## 2. The Interaction Mechanism between Digital Economy and Real Economy

This paper studies the interaction mechanism between digital economy and real economy, and expounds the influence of digital economy on real economy and the role of real economy in the development of digital economy.

### 2.1 Digital Economy is the Booster of Real Economy.

The digital economy brings important transformation opportunities and key technical support for the high-quality development of the real economy. The rapid development and wide application of digital technologies such as big data, cloud computing, blockchain and artificial intelligence have changed traditional production methods and business models, spawned new industries, new formats and new models, and triggered multi-field and multi-level changes, which not only brought new ideas to traditional entity enterprises, but also opened up new space for the development of the real economy, and promoted the development of the real economy towards high-end, intelligent and green [4]. For example, the wide application of digital technology has promoted the upgrading of logistics and transportation industries, improved efficiency, reduced costs, and brought higher quality and better service.

### 2.2 Real Economy is the Foothold of Digital Economy.

The real economy provides rich application scenarios for digital economy frontier fields such as digital technology and data elements [5]. The digital economy is driven by the structural optimization, transformation and upgrading of the real economy. It is committed to the whole life cycle from product R&D and design to user experience, constantly integrating data, technology and other resources, providing various digital products and services, forming a new real economy and promoting digital industrialization. With its high innovation, strong permeability and wide coverage, the digital economy quickly and comprehensively penetrates into the whole process of the operation of the real economy, and carries out all-round and all-round transformation and upgrading of the R&D, production, sales, logistics and other links of the real industry to promote the realization of industrial digitalization.

### 2.3 Digital Economy and Real Economy Promote Each Other.

Digital technology is a strong support for the real economy, which is an important foundation of the digital economy. Only by integrating traditional industries can the development of digital economy show its advantages, and the real economy and digital economy achieve each other. The interaction and fusion of digital economy and real economy will become the trend of future economic development. Through the basic function of effective market, we can spontaneously realize deep fusion and effectively promote the common progress of the two. Therefore, it is necessary to promote the organic combination of digital economy and real economy in the process of fusion of digital economy and real economy to achieve more benign and sustainable economic development. The digital economy and the real economy promote and support each other, and promoting their deep fusion is an important part of

building a modern industrial system and achieving high-quality economic development.

## 3. Analysis on the Deep Fusion of Digital Economy and Real Economy to Promote Changzhou's High-Quality Development

Based on the survey data, this paper investigates the related contents of the deep fusion of digital economy and real economy, deeply analyzes the problems existing in the deep fusion of digital economy and real economy to promote the high-quality development of Changzhou, and looks for the main line to solve the problems in the process of analyzing the problems.

### 3.1 The Digital Economy is Not Competitive.

In 2021, Changzhou's core digital economy industries will account for about 10% of GDP, lower than Nanjing's 18%, Suzhou's 14.5% and Wuxi's 10.5%, and lacking leading enterprises in digital product manufacturing industries such as computer communications, electronic components and equipment manufacturing, with a low degree of industrial agglomeration[6]. In terms of digital economy services such as information transmission, software and information technology, there is a lack of leading enterprises with ecological construction capabilities. Compared with Changzhou, the core industries of digital economy in Hangzhou contribute more than 50% to economic growth. In terms of artificial intelligence, Hangzhou has become the third batch of national new-generation artificial intelligence development and innovation experimental zones after Beijing and Shanghai.

### 3.2 The Frontier Field is Almost Blank

Changzhou's economic driving force and focus are concentrated in traditional industries, and the digital economy industry started relatively late. Many segmented and fragmented digital transformation projects are far from the standards of smart factories and industrial internet benchmark factories, which further affects the enthusiasm of enterprises for intelligent transformation and digital transformation. Nanjing actively builds a pilot demonstration project for the development of national big data industry, and Suzhou promotes the development of digital industrialization led by "Touyan" enterprises [7]. Judging from the overall strategic situation of the province, Changzhou is almost blank in the frontier areas of digital economy such as core industry manufacturing, high-tech industries and strategic emerging industries.

### 3.3 Software Information Industry Lacks Support.

Digital industrialization industries include electronic information manufacturing and telecommunications, as well as software, information technology service industry and Internet industry. The added value of digital industry in China has been continuously improved, and the industrial scale has been continuously expanded. However, Changzhou's software information industry is small in scale, weak in R&D strength and insufficient in market competitiveness. The convenient geographical advantage in the Yangtze River Delta makes most enterprises in Changzhou give priority to purchasing or outsourcing to powerful foreign enterprises, which eventually leads to the general loss of information software business and poor competitiveness. The underlying foundation of Changzhou's high-tech industry is not solid enough, with few application scenarios and relatively weak R&D capability.

### 3.4 Policy Support Needs to be Improved.

The system of laws and regulations is relatively imperfect, and the level and ability of government supervision need to be strengthened. The monopoly problem of platform enterprises is severe, which seriously weakens the market vitality of the fusion and development of real economy and digital economy. The data security system is not complete, and data infringement is common. The ownership of income right is not clear, the definition of digital property right is not clear, and the intellectual property protection system is not perfect [8]. In order to promote the integrated development of the real economy and the digital economy, different government agencies at all levels have issued promotion policies. However, some policy objectives, implementation priorities and implementation measures are not well coordinated with the higher-level government and other agencies, and the ability of coordination and convergence is poor, which fails to form a joint force of policies.

## 4. On the Path Selection of Deep Fusion of Digital Economy and Real Economy to Promote Changzhou's High-quality Development

Network security technologies and applications in the era of big data include many contents. This paper mainly studies virus protection technology, intrusion detection technology and access control technology.

### 4.1 Strengthening the Guidance of Innovation and Regarding Innovation as the First Driving Force for Integrated Development.

Innovation is the first driving force to lead development, and innovation-driven development is the inherent requirement to implement the new development concept completely, accurately and comprehensively. Driven by innovation, we will fundamentally change the situation that key core technologies are subject to people, further solve the development problem of insufficient imbalance, create new industries, cultivate new kinetic energy, form new advantages, and lead and drive high-quality development. The deep fusion and development of the digital economy and the real economy requires continuous tackling of major scientific issues of key core technologies, speeding up the conquest of a number of original leading technologies, and striving to achieve more original technological innovation breakthroughs from 0 to 1 [9]. Create a good innovation environment, integrate and optimize the allocation of scientific and technological resources, appropriately tilt to the digital core technology field, strengthen the innovation of original digital technology, and strengthen the protection of intellectual property rights.

### 4.2 Excavating Human Resources and Regarding Talents as the First Resource for Integrated Development.

Digital talents are the core driving force for the digital economy to empower the real economy, and digital talents need to have one or more other professional abilities besides digitalization. We should further deepen the reform of the system and mechanism of "introducing, cultivating, retaining and using" digital talents and intensify the cultivation of digital talents. Improve the training system of digital talents in colleges and universities, encourage the establishment of digital related majors, establish a joint training mechanism for digital talents that meets the development needs of emerging industries, and cultivate digital talents with new thinking, understanding new rules and mastering new tools [10]. Accelerate the improvement of the professional skills identification, qualification examination and evaluation system of digital talents, and improve the honor incentive mechanism of digital talents, so that talents can become the biggest increment of the transformation and upgrading of the digital economy and the real economy.

### 4.3 Releasing the Potential of Data and Taking Data as a Powerful Starting Point for Integrated Development.

As an important and active production factor, data is driving profound changes in both the digital economy and the real economy. Encourage enterprises to open data resources, promote the digitalization of the whole process, set a benchmark for the digital transformation of enterprises, and form a demonstration effect and a driving effect. Guide enterprises to collect and store industrial data according to national and industry standards, and actively carry out maturity assessment of enterprise data management capabilities; Strengthen the digital management of enterprises, eliminate "data islands" within enterprises, and form an integrated application management control mode of digital, management, business, service, finance and supervision; Improve the data security supervision system to ensure the rights and interests of data assets of small and medium-sized enterprises and the security of data involving trade secrets; Collect market subject information through efficient Internet and Internet of Things systems, and connect the data in the consumer field with the data in the industrial field, forming a data connection from product R&D and design to user experience [11].

### 4.4 Strengthening the Platform Construction and Regarding the Platform as the Core Link of Integrated Development.

The digital economy in China has entered a new stage of system construction, and the digital economy and the real economy are deeply integrated. The digital economy governance around technology, data, platforms and algorithms has gradually become the new normal. Cultivating industrial ecology is the core path of deep fusion of digital economy and real economy, and the platform is an important carrier to promote the deep fusion of digital economy and real economy. It is necessary to constantly promote the transformation from competition between enterprises to

interconnection and mutual empowerment, and enlarge economic efficiency. Build a number of comprehensive platforms in cross-industry fields, characteristic platforms for key industries and regions, and professional platforms for specific technologies and scenarios to create a new manufacturing ecology based on platforms [12]. Improve the level of normalized supervision and support platform enterprises to show their talents in leading development, creating jobs and international competition.

## 5. Conclusions

Promoting the healthy development of the digital economy is not only a major strategic deployment after the Party Central Committee accurately studies and judges the internal and external environment, but also a core focus in line with the high-quality economic development goal of China in the future. On the basis of deeply understanding the inherent law of industrial economic fusion development under the new wave of global scientific and technological revolution and industrial transformation, and systematically summarizing the practical experience of digital economy and real economy fusion development in the world and China, this research accurately grasps the dialectical relationship of interdependence and mutual promotion between digital economy and real economy, and puts forward the path selection of deep fusion of digital economy and real economy to promote Changzhou's high-quality development from the perspectives of "innovation, talents, data and platform". Theoretically, it further enriches and supplements the existing theories and methods of deep fusion of digital economy and real economy. Practically, it provides fundamental guidance for Changzhou to promote the fusion and development of digital economy and real economy in the new era, and provides scientific reference for the government's decision-making behaviour.

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