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**ANALYSIS OF THE CURRENT STATUS
AND TRENDS OF CHINA'S DIGITAL ECONOMY DEVELOPMENT***PhD in Economics S. IZMAILOVICH, PhD in Economics A. LISICHONOK, Ch. JIAO**(Euphrosyne Polotskaya State University of Polotsk)**Svetlana Izmailovich ORCID: <https://orcid.org/0000-0002-4337-5772>**Elena Lisichonok ORCID: <https://orcid.org/0000-0001-9266-4872>*

In the era of rapid technological advancements, the digital economy has emerged as a powerful driver of global economic growth and transformation. It has permeated every aspect of modern society, from daily consumption patterns to large-scale industrial operations. As one of the world's largest economies, China has been at the forefront of digital economic development, witnessing remarkable progress in recent years. The analysis aims to comprehensively explore the current status and trends of China's digital economy development. By delving into various sectors such as e-commerce, digital finance, and emerging digital – enabled industries, we can gain a profound understanding of how China is leveraging digital technologies to enhance economic efficiency, innovation capabilities and international competitiveness. Moreover, identifying the trends will not only help in predicting future development directions but also provide valuable insights for policymakers, businesses, and researchers to formulate appropriate strategies in this digital – dominated era.

Keywords: *China, digital economy, development status, development trends, analysis.*

Introduction. In the publication, based on the available official information of the government authorities on the level of development of China's digital economy, we aim to conduct a comprehensive analysis of the state and trends in the development of China's digital economy. The objectives of the proposed study are as follows: to identify the current state of the digital economy and the problems of its development in China, to analyze the structure and scale of its development. What is clearly disclosed and revealed by the authors.

The authors of the study made extensive use of the results of the National Congress of the Communist Party of China, analytical data published by the China ICT Institute, as well as the opinions and views of prominent scientific and political figures such as Jin Zhuanglong, Minister of Industry and Information Technology, Qin Chuangyuan, Xin Guobin, Li Bin, Li Ru, Yue Yongsun, Li Haijian, Tian Yuexin, Li Wenjie, Li Kunwang, Jiang Wei, Song Ligang, and others.

The authors of the article reviewed the recommendations that may affect the future competitiveness of the digital economy in China and outline the development trajectory for the three major competitiveness points of China's digital economy. The proposed model is based on the motive of deep mastery of core technologies and promoting deep integration of new technologies and the real economy to create a favorable industrial ecological environment.

Main part. Amid the intensifying competition in the global digital economy, the existing studies so far (such as Wang Jiangtao scholars, 2023; Digital Economy Organization Report, 2024) have focused on the impact of digital technology on economic growth. In our view, there is a research gap on how to overcome bottlenecks in key technologies and build an independent industrial environmental strategy in China. Based on the actual needs for the development of digital economy in China, the article focuses on the problem of enhancing global competitiveness through strategic planning to propose an economic development framework that has both theoretical depth and practical value.

The authors of the article identify three pivotal points of the future competitiveness of China's digital economy, and form a three-dimensional development trajectory of “technological breakthrough – integrated innovation-environmental construction”:

1. Overcoming core technologies and consolidating the basic architecture of the digital economy. We propose to build a complete innovation system of “basic research – technology transformation – industrial application” with “innovation consortium” as the organizational carrier and relying on the Qin Chuangyuan innovation platform. Specific actions include:

– Accelerating key technology research: for areas such as artificial intelligence algorithms, industrial software, and high-performance chips, joint universities (such as Tsinghua University and the Chinese Academy of Sciences) and leading enterprises (such as Huawei and SMIC) have set up dedicated research teams, and 12 patent breakthroughs were made in 2023 in quantum computing modeling technology and blockchain cross-chain protocol (Table 1).

– Future layout of digital infrastructure: in 2024 1 million 5G base stations are to be added, and 15 national data center clusters are to be built in Beijing, Tianjin and Hebei, the Yangtze River Delta and other regions to form a cloud-edge-end collaborative computing network (see Table 1).

2. Promote the deep integration of digital technology and the real economy. We establish a fusion mechanism of “technology empowerment and cluster modernization” and unleash the value of digital elements through policy recommendations (such as the “Tenth Five-Year Plan for Digital Economy Development”) and market means:

– Digital transformation of traditional industries: In the manufacturing sector, 500 demonstration projects of “smart factories” (such as Haier Kaos industrial internet platform) have been developed to improve production efficiency by 23% and reduce energy consumption by 18% (see Table 1).

- In the agricultural sector, the “digital twin + precision seeding” model will be promoted, and the grain yield of the pilot site in 2023 will increase by 15%.
- Establish a digital industrial cluster: Focus on advantageous industries such as electronic information (Shenzhen), new energy vehicles (Shanghai) and high-tech machinery (Qingdao), and form a scale effect, according to which the output of the digital economic cluster in the Yangtze River Delta has exceeded 12 trillion yuan through the joint innovation of “leading enterprises + small and medium-sized enterprises” (Table 1).

Table 1. – The key threads and details of China's digital economy development¹

Development Thread	Details
Policy Support	Since the 18th National Congress of the CPC, China has issued the digital economy development strategy and the 14th Five-Year Plan to promote its development
Scale Expansion	The scale of the digital economy has increased from 11.2 trillion yuan in 2012 to 53.9 trillion yuan in 2023, expanding 3.8 times in 11 years
Market Consumption	In 2023, China had 1.09 billion netizens, forming the world's largest digital consumer market. Online retail sales reached 15.42 trillion yuan, ranking first in the world for 11 consecutive years. The scale of mobile payment increased by 239 times compared with 2012
Technological Innovation – AI	By the end of 2023, the scale of China's artificial intelligence core industry was close to 580 billion yuan
Industrial Digitalization	The digitalization of industry is developing in depth, with new formats and models such as the industrial Internet and intelligent manufacturing emerging
	By the end of 2023, 421 national-level intelligent manufacturing demonstration factories and more than 10,000 provincial-level digital workshops and intelligent factories had been cultivated, and 62 "lighthouse factories" had been established
	The digitalization level of key manufacturing areas has been accelerated, with the numerical control rate of key processes and the penetration rate of digital R&D design tools reaching 62.2% and 79.6% respectively
Urban Development Pattern	CCID Consulting evaluated the top 100 digital economy cities in 2024. Beijing, Shanghai, Guangzhou, etc. are among the top ten. Different cities have their own performances in digital industrialization, industrial digitalization, and the development vitality of the digital economy
Future Planning	The Ministry of Industry and Information Technology will give priority to the digital transformation of equipment manufacturing enterprises, etc., and start the construction of high-standard digital parks

3. Improve the governance system of the digital economy and strengthen the rule of the right of speech. We propose the governance structure of “technological autonomy – institutional adaptation – international integration”:

- Strengthen the market-oriented distribution of data elements: establish a provincial data trading center (such as Beijing International Big Data Exchange), and the data transaction volume will exceed 50 billion yuan in 2023, and “Detailed Rules for the Implementation of the Data Security Law” will be issued to regulate the cross-border data flow.
- Build an inclusive supervision mechanism: implement “sandbox supervision” on the platform economy, which not only encourages new business innovation (e.g., the digital RMB pilot project covers 26 cities), but also prevents monopoly risks. In 2024, the Interim Measures on the Management of Generative Artificial Intelligence Services was released to balance innovation and security.

The novelty of the published research is that, for the first time, a three-dimensional technology-industry-system joint development model of the digital economy has been proposed, which overcomes the limitation that the current existing academic research only focuses on one area:

1. Innovation methodology: Innovation Consortium (Innovation Consortium) and Regional Innovation Platform (Qin Chuangyuan) are closely linked, and a five-in-one “policy – industry – university – research” technical research mechanism is constructed, which provides a new paradigm to solve the “stuck neck” problem.
2. Practical value: Through quantitative analysis (see Table 1), the causal chain of “key technology breakthrough – industrial cluster upgrading – management system improvement” is demonstrated, and the proposed “scenario-oriented integration strategy” (e.g., smart factory construction trajectory) can directly guide the practices of local governments and enterprises.
3. International perspective: Against the backdrop of Europe and the United States dominating the global digital rules, a full-drive strategy of “technical autonomy + institutional innovation” is proposed to provide a differentiated path for developing countries to enhance the competitiveness of the digital economy.

Let's take a look at the current status of development of China's digital economy. At present, the digital economy has become the field with the most active innovation, the fastest growth rate and the widest influence in economic development, which has a strong supporting role in cultivating and developing new quality productivity and enhancing the resilience of the industrial chain supply chain.

¹ URL: <https://max.book118.com/html/2024/1221/6113101000011013.shtm>

Since the 18th National Congress of the Communist Party of China, China has successively issued the digital economy development strategy and the 14th Five-Year Plan to promote the vigorous development of the digital economy. The scale of digital economy has increased from 11.2 trillion yuan in 2012 to 53.9 trillion yuan in 2023, and the scale has expanded 3.8 times in 11 years. This year marks the 30th anniversary of China's full-featured access to the Internet. "After 30 years of development, China has 1.09 billion netizens, forming the world's largest digital consumer market. In 2023, China's online retail sales reached 15.42 trillion yuan, ranking first in the world for 11 consecutive years; The scale of mobile payment has increased by 239 times compared with 2012," Zhao Zhiguo, chief engineer of the Ministry of Industry and Information Technology, said.

Artificial intelligence is an important driving force to lead a new round of scientific and technological revolution and industrial transformation. In recent years, generative artificial intelligence technology has accelerated iteration, providing new tools and perspectives for innovation, development, transformation and upgrading of all walks of life. By the end of 2023, the scale of China's artificial intelligence core industry was close to 580 billion yuan. Jin Zhuanglong, Minister of Industry and Information Technology said that artificial intelligence has injected new kinetic energy into economic and social development and is profoundly changing people's way of life and production. We should focus on humanoid robots, brain-computer interface, metaverse, next-generation Internet, 6G, quantum technology, atomic manufacturing, deep-sea aerospace development and other fields, implement a number of key scientific research projects, break through a number of key core technologies, and form a number of landmark products [1, p. 52].

At present, the digitalization of industry is developing in depth, and new formats and models such as industrial Internet and intelligent manufacturing are constantly emerging. "From the perspective of effectiveness, the product development cycle of demonstration factories in the fields of large aircraft, new energy vehicles and high-speed EMUs has been shortened by 30%, and the production efficiency has been improved by nearly 30%. After plugging in the 'digital wings', manufacturing enterprises fly faster and more efficiently than similar enterprises," Xin Guobin said. In the future, the Ministry of Industry and Information Technology will give priority to the digital transformation of equipment manufacturing enterprises, large-scale durable consumer goods production enterprises and large-scale equipment renewal enterprises, focusing on chain owners and specialized small and medium-sized enterprises. Start the construction of a high-standard digital park, smooth the data link, innovation chain, industrial chain and supply chain in the park, and explore the overall path to upgrade the digitalization of the park [2, p. 69].

China's digital economy has entered an accelerated development cycle, with its scale increasing from 11.2 trillion yuan in 2012 to 53.9 trillion yuan in 2023, and its scale has expanded 3.8 times in 11 years. Among them, it took about six years for the scale of digital economy to grow from 10 trillion yuan to 30 trillion yuan, and only about four years for it to grow from 30 trillion yuan to 50 trillion yuan. In 2023, stimulated by a series of favorable policies of the CPC Central Committee, the scale expansion of China's digital economy has steadily advanced, with an increase of 3.7 trillion yuan over the previous year, and the growth rate has entered a relatively stable area.

The digital economy has the characteristics of high technical level, strong innovation ability, great penetration and wide range of radiation drive. The development and growth of new models and formats of the digital economy and the comprehensive digital, networked and intelligent transformation of the economy and society are of great significance to enhancing the ability of scientific and technological innovation, building a modern industrial system and promoting high-quality economic development. In terms of proportion, in 2023, the position of the digital economy in the national economy was further enhanced. The proportion of China's digital economy in GDP reached 42.8%, up 1.3 percentage points from the previous year. The digital economy is the key support and important driving force of the national economy. In terms of growth rate, in 2023, the digital economy continued to support the realization of the goal of steady economic growth. China's digital economy grew by 7.39% in nominal terms year-on-year, which was 2.76 percentage points higher than the nominal growth rate of GDP in the same period (in 2023, the nominal growth rate of China's GDP was 4.64%), and the contribution rate of digital economy growth to GDP growth was 66.45%, effectively enhancing the resilience and vitality of China's economic development.

Thus, the digital economy has become a key area of economic development. Since the 18th National Congress of the Communist Party of China, China has promoted its vigorous development by issuing relevant strategies and plans, and its scale has greatly expanded by 3.8 times from 2012 to 2023. The scale of online retail sales and mobile payment is outstanding. The scale of artificial intelligence core industries is close to 580 billion yuan, which has injected new kinetic energy into many fields. The digitalization of industries has developed in depth, and many demonstration factories and smart factories have been cultivated to help enterprises reduce costs and increase efficiency. In the future, the Ministry of Industry and Information Technology will promote the digital transformation of various enterprises and the construction of digital parks. CCID Consulting assessed the top 100 cities of digital economy in 2024, and different cities have their own performances in digital industrialization, industrial digitalization and the development vitality of digital economy. China's digital economy has entered an accelerated development cycle, with a rapid scale growth and a new stage led by scientific and technological innovation. Its position in the national economy has improved, accounting for 42.8% of GDP. The growth rate is higher than the nominal growth rate of GDP, which has a high contribution rate to GDP growth, effectively enhancing economic resilience and vitality and promoting high-quality economic development.

Let's take a look at the challenges in the development of China's digital economy. With the vigorous development of global digital economy, international competition is becoming increasingly fierce. The United States, Europe and other countries and regions have obvious advantages in the field of digital economy, which poses great competitive pressure on China. Especially in key core technologies, data resources and international market, China needs to constantly improve its competitiveness to meet the challenges of international competition.

At present, digital transformation has become a general consensus of all countries, and developed countries have even listed the key and core technologies related to the development of digital economy as strategic battlefields, trying to further strengthen the leadership of international standards for key and emerging technologies under their leading rules and control the strategic highland and discourse power in the digital economy era. China's digital economy has attracted worldwide attention, but compared with developed countries, there are still some problems, such as low degree of integration of digital and real, insufficient innovation of key core technologies, and weak discourse power of competition rules in the digital age. At present, it is necessary to seize the opportunity of the digital transformation era, accelerate the innovation of key and core technologies, and promote the integration of digital and real with high quality [3, p. 78].

With the rapid development of artificial intelligence, information communication and other digital technologies, the digital economy driven by digital technology innovation is profoundly changing the traditional economic development model and becoming a new important growth engine for global economic development. First, the digital economy plays an increasingly important role in global economic growth. According to the White Paper on Global Digital Economy (2022) published by China ICT Institute, in 2021, the scale of digital economy in 47 countries around the world reached US \$ 38.1 trillion, accounting for 45.0% of GDP, up by 5.5 trillion and 1.3 percentage points year-on-year. The role of digital economy in leading the recovery of the world economy and reshaping the global economic structure has become increasingly prominent. Second, the digital economy plays a key role in reshaping the international competition pattern. As a brand-new socio-economic form, digital economy poses a subversive challenge to the global industrial division of labor and competition order constructed in the industrial economy era, and becomes a key factor to reshape the new pattern of global competition in the coming decades. Third, the digital economy is the only way for China to promote Chinese modernization. Developing the digital economy is a strategic choice for China to grasp the new opportunities of the new round of scientific and technological revolution and industrial transformation, and it is also an important opportunity for China to catch up with the developed economies. The digital economy will build an important new growth engine for China's modern economic system.

The development of China's digital economy faces three major challenges. China's digital economy is booming, the process of digital industrialization and industrial digitalization is accelerating, and new technologies, new formats and new models spawned by digital technology have widely penetrated into various fields of economy and society, which has played an increasingly prominent role in leading and supporting China's economic and social development. However, there are still three dilemmas in the development of China's digital economy in the technical layer, application layer and system layer, which are in urgent need of breakthrough [4, p. 85].

1. Technical layer. The key core technological innovation of China's digital economy needs to be strengthened.

Whether to master the leading technical route and key technologies of digital economy is directly related to the competitiveness of national digital economy, but there is a risk of being suppressed in the selection of key core technologies and technical routes in China's digital economy. First, the key core technologies of China's digital economy are highly dependent on foreign countries. China's digital core technologies are highly dependent on foreign countries. More than 300 key technologies related to the digital industry, such as high-end chips, industrial control software, core components and basic algorithms, are still subject to people. The industrial application, engineering promotion and commercial operation of digital technology are not systematically promoted, which poses a challenge to the security and stability of China's digital economy development. Second, the underlying technical logic of China's digital economy is at great risk of being replaced. Over the past decade or so, the rise of China's digital economy was mainly based on the choice of the technical route of "software and hardware integration" represented by 5G, and the huge digital economy infrastructure established an important foundation for the development of digital economy. However, developed countries rely on their advantages in basic software and chip technology to reconstruct the technical route of global digital economy, and strongly advocate "open source" to replace "integration of software and hardware", and redefine the digital economy foundation through interface standards, core software and bottom chips, so the bottom technical logic of China's digital economy is at great risk of being impacted.

2. Application layer. The degree of integration of digital and real economy in China needs to be improved.

Although the scale of China's digital economy ranks second in the world, the overall integration of digital and real is still relatively low, the development is not balanced, and the cost of digital transformation of enterprises is relatively high. First, the degree of integration of the three industries in China is unbalanced. According to the White Paper on the Development of Digital Economy in China, in 2021, the penetration rate of digital economy in the primary, secondary and tertiary industries in China reached 9.7%, 22.4% and 43.3%, respectively, which was 0.8, 1.4 and 2.6 percentage points higher than that in 2020, but the integration of digital and real industries in the primary and secondary industries was low and the growth rate was obviously slower than that in the tertiary industry, which would greatly affect the improvement of labor productivity. Second, the degree of integration of number and reality obviously lags behind that of developed countries. The White Paper on Global Digital Economy (2022) shows that the digital level of the primary, secondary and tertiary industries in the world exceeds 30%, 40% and 60% respectively, and the digital economy penetration rate of China's tertiary industries is far from that of developed countries, even though the tertiary industries with the highest degree of digitalization are 7-8 percentage points lower than the average level of developed countries. Third, a large number of small and medium-sized enterprises hesitate in the digital transformation. In the face of crossing the digital divide, small and medium-sized enterprises have some problems, such as not wanting to turn, not being able to turn, and not daring to turn. According to the report of China Institute of Electronic Technology Standardization, in 2021, the proportion of enterprises in the initial exploration stage, industry practice stage and deep application stage in

China was 79%, 12% and 9% respectively, indicating that most small and medium-sized enterprises were still in the primary stage of digital transformation [5, p. 92].

Let's take a look at the institutional layer China's digital governance system and regulatory rules need to be improved. Digital rules are an important weapon for global data competition and an important institutional basis for mastering the right to speak in the era of digital economy. However, digital rules in China do not match and adapt to the development status and speed of digital economy. First, the control of digital rules by developed countries in the world has seriously impacted China's data governance system. The United States relies on its digital technology and digital economy pioneer advantages to lay a global governance system for digital supervision, and the European Union also relies on its unified big market advantage to establish a data supervision system earlier. Global digital rules have formed a situation that the European Union model and the American model are divided into two parts. China's digital economy has a weak voice, and Europe and the United States use the extraterritorial effect of digital rules to dominate the global digital economy competition, which directly affects the security of China's data sovereignty. Second, China's digital system construction lags behind the development of digital economy. The construction of China's digital economy system does not match the reality of the rapid development of digital economy, which has become a constraint to the development of digital economy. At present, the systems, laws, regulations and standards about data ownership confirmation, data transaction rules, data circulation system and data security supervision are not perfect. Different business frameworks and systems among enterprises in the digital economy lead to insufficient data connectivity, integration and sharing, and the phenomenon of "data islands" is still serious, which restricts the release of "digital dividends".

Thus, China's digital economy will face many challenges in 2024, despite its remarkable development and remarkable achievements under the background of accelerating global digital transformation. In terms of development momentum, in the process of shifting from high-speed growth to high-quality development, the growth of traditional digital industries has slowed down, emerging digital industries are immature, and new kinetic energy is at risk of weakening, so stimulating new kinetic energy has become an important challenge; At the level of international competition, the United States and Europe have obvious advantages in key core technologies, data resources and international markets, which has brought great pressure to China; Compared with developed countries, China has some problems, such as low degree of digital integration, insufficient innovation of key core technologies, and weak discourse power of competition rules in the digital age. At the technical level, the key core technologies are highly dependent on foreign countries and the underlying technical logic is at risk of being replaced. At the application level, the digital integration of three industries is unbalanced and lags behind developed countries, and it is difficult for a large number of small and medium-sized enterprises to digitally transform. At the institutional level, the international community is facing the impact of digital rules of developed countries, the domestic digital system construction lags behind the development of digital economy, and the data governance system and regulatory rules are not perfect.

Next in the publication, we will analyze the development pattern and scale of China's digital economy. With the wide application of digital technology with the Internet as its core, China's digital economy has achieved rapid development and maintained rapid growth. As can be seen from Figure 1, 2, the scale of China's digital economy has been increasing year by year. After 2017, the growth has accelerated, and China's digital economy has entered a mature stage. As can be seen from Figure 1, China's digital economic growth rate is consistent with the GDP growth trend, indicating that the scale growth of digital economy plays a positive role in promoting economic and social development. According to the statistics of the National Bureau of Statistics on the digital economy, the digital economy is divided into two parts: digital industrialization and industrial digitalization: digital industrialization refers to the activities of providing digital products, technical equipment and directly utilizing digital technologies and products; industrial digitalization refers to the combination of digital technologies and the real economy, which is a new output brought by the application of digital technologies in traditional industries, including various new industries, new models, and new formats that apply digital technologies.

The development level of digital economy often depends on the level of economic development. China's regions with higher levels of economic development also have larger scale of digital economy, for example, Shanghai, Beijing, Guangdong, Jiangsu, Zhejiang, Fujian, Hubei, Sichuan, Henan, Hebei, Anhui and Hunan are in the first echelon, with the total amount exceeding 1 trillion yuan; Liaoning, Chongqing, Jiangxi, Shaanxi and Guangxi belong to the second echelon, with a total amount of more than 500 million yuan, and the remaining provinces are the third echelon. From the above, it can be seen that the scale of China's digital economy varies greatly among different regions. The development of regional digital economy is uneven, with the eastern region far higher than the western region.

In 2020, although the epidemic had a great impact on the economic development of various countries and some countries experienced economic downturn, the digital economy still showed a good momentum of development and became the key driving force to promote stable economic recovery under the impact of the epidemic. The United States, Germany, Japan and Britain account for 79% of the world's digital economy. In 2020, the United States still ranked first in the digital economy, with a scale of US \$ 13.6 trillion, accounting for 41.7% of the global digital economy. After the United States, China became the world's second largest digital economy, with a scale of US \$ 5.4trillion, accounting for only 40% of the US digital economy. The gap is still relatively large. Figure 3 shows the scale of the top ten countries in the global digital economy in 2020. It can be seen that: (1) the United States is still in the leading position in the digital economy, and the scale of the digital economy is much larger than that of other countries; (2) The countries with large scale of digital economy development are mainly developed countries, and only two developing countries, China and India, make the list; (3) The proportion of digital economy in GDP in China is much lower than that in other countries (36.4% in China, 65.1% in the United States, 66.0% in Germany, 64.7% in Britain, 51.8% in South Korea and 49.0% in Japan). There is still a vast space for the development of digital economy in China.

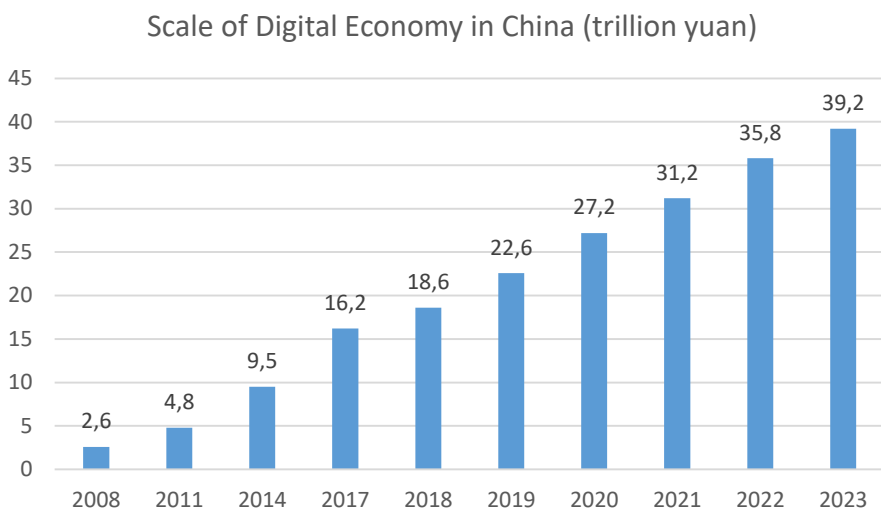


Figure 1. – Scale of Digital Economy in China (Billion Yuan)²

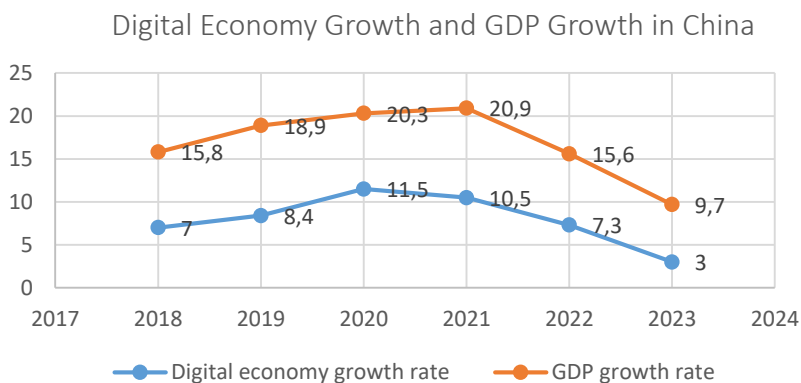


Figure 2. – Digital Economy Growth and GDP Growth in China³

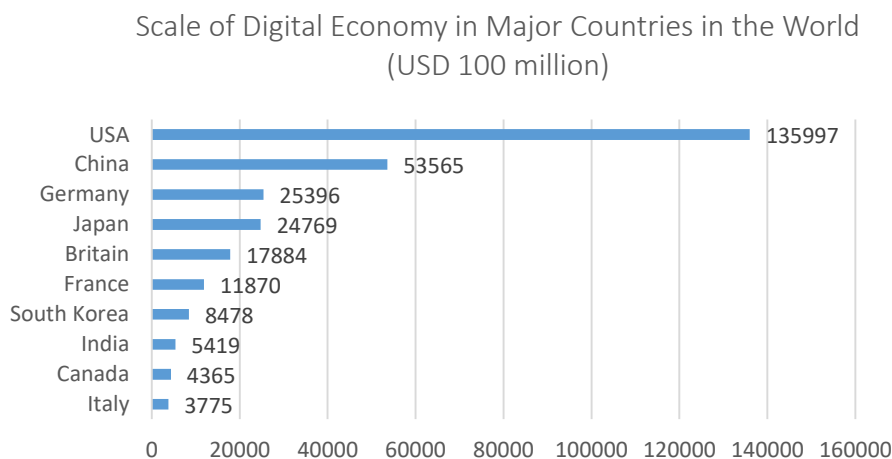


Figure 3. – Scale of digital economy in major countries in the world (usd100million)⁴

With the deepening of economic globalization, digital economy is applied to trade. It mainly appeared in the form of cross-border electronic commerce in the early stage and gradually formed digital trade, which is a new trade form. Figure 4 shows the transaction scale of the e-commerce market in recent years. The e-commerce transaction scale has

² URL: <https://max.book118.com/html/2024/1221/6113101000011013.shtm>

³ URL: <https://max.book118.com/html/2024/1221/6113101000011013.shtm>

⁴ URL: https://www.gov.cn/lianbo/fabu/202408/content_6970015.htm

increased year by year, from 315 billion yuan in 2012 to 348.10 billion yuan in 2023, and the market transaction scale has expanded more than ten times. The growth rate of e-commerce peaked in 2019 and then declined to 10% by 2022.

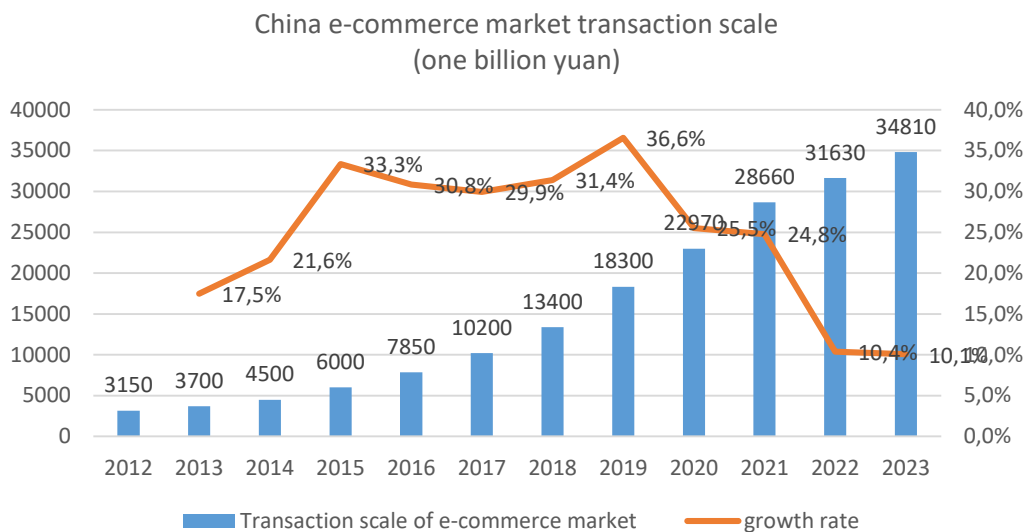


Figure 4. – China e-commerce market transaction scale (one billion yuan)⁵

China not only has the largest digital economy in the world, but also has the highest competitiveness in the world. Shanghai Academy of Social Sciences Zhang Bochao and Wang Zhen (2023) compiled the "2023 Global Digital Economy National Competitiveness Development Report" to evaluate and compare the competitiveness levels of global national digital economy. The specific data results are shown in Table 2.1. The United States ranks first in the global digital competitiveness and China ranks third in the digital economic competitiveness rankings. From the scores of each sub-item, it can be seen that the scores of each part in the United States are relatively high, with balanced development and strong comprehensive ability, while the scores of each part in China are uneven, with unbalanced development. Specifically, it is in an absolute leading position in the score of the digital industry, with a score as high as 65.31, far higher than the 46.76 of the United States, ranking first in the world; High scores on digital facilities; In terms of digital innovation and digital governance, it is slightly insufficient, with scores in the middle position, and there is a big gap with the United States. From the competitiveness score of China's digital economy countries, we can see that: (1) the overall competitiveness of China's digital economy ranks third in the world; (2) The uneven development of the digital economy mainly depends on the digital industrialization and digital facilities, which reflects from the side that the development of the digital economy in our country is in an immature stage, the transformation of the digital economy industry is not deep enough, and the promotion of digital technology innovation is not strong enough, especially the governance of the problems caused by the development of the digital economy is not perfect enough.

Table 2. – World Digital Economy Ranking⁶

Ranking	Country	Digital Industrialization	Digital Innovation	Digital Facilities	Digital Governance	Total Score
1	USA	46.76	80.18	69.89	86.54	70.84
2	Singapore	27.55	82.18	50.53	67.43	56.92
3	China	65.31	51.52	46.07	49.65	53.14
4	South Korea	12.85	68.48	46.33	65.4	48.27
5	Britain	20.32	65.37	33.42	72.8	47.98
6	Japan	12.66	73.45	39.09	63.4	47.15
7	Finland	3.07	85.54	33.51	63.77	46.47
8	Sweden	9.32	69.71	38.18	62.82	45.01
9	Australia	9.99	60.56	37.55	68.06	44.04
10	Netherlands	6.55	63.62	34.68	70.95	43.95
11	Germany	19.13	70.87	28.52	57.26	43.94
12	Israel	18.43	72.97	24	58.57	43.49
13	Denmark	2.86	64.59	37.44	67.2	43.02
14	Norway	4.61	71.85	39.81	55.42	42.92
15	Canada	7.14	59.17	32.77	69.47	42.14
16	Austria	3.96	65.85	30.69	63.71	41.05
17	France	13.7	62.83	25.99	60.97	40.87

⁵ URL: <https://wwd.com/tag/chinese-e-commerce/>

⁶ URL: <https://wwd.com/tag/chinese-e-commerce/>

Thus, the scale and competitiveness of China's digital economy are in the forefront of the world, ranking third in the global digital competitiveness rankings. The digital industry scores ahead, but digital innovation and governance are insufficient, and its development is uneven, reflecting the immature development of digital economy, insufficient industrial transformation, limited promotion of technological innovation and imperfect governance.

Let us review the trends and suggestions for the development of China's digital economy. The key to digital economy competition in the future depends not only on who can master the core technologies such as artificial intelligence, 5G, blockchain and quantum information, but also on who can do better in promoting the deep integration of new technologies and the real economy and form a benign digital economy industry ecology. In this regard, we should plan the effective development path of China's digital economy as a whole.

First of all, speed up the research of digital core technology and deploy key infrastructure ahead of schedule.

First, we must always take the lead in the independent innovation of digital key core technologies, improve the basic research and development capabilities of digital technologies, fight hard for key core technologies, further promote the research and development of key core technologies and standards of digital economy such as 5G and artificial intelligence, and firmly grasp the digital economy. Technical autonomy. The second is to systematically sort out and study the digital economic technology route that conforms to China's national conditions and security, appropriately deploy digital infrastructure construction in advance, expand the underlying logical advantages of digital economic technology development, and accelerate the construction of high-speed ubiquitous, integrated heaven and earth, cloud network integration, computing network, and accelerate the application of digital core technologies in the industrial field [6, p. 47].

Secondly, promote the integration of digital and real, and release the development potential of digital elements.

First, give play to the core value of the integration of number and reality, and empower the industrial chain, supply chain, innovation chain and value chain through digital technology, so as to enhance the resilience of economic development. The second is to focus on digital core industries such as artificial intelligence, big data, industrial Internet, blockchain and metaverse, strengthen technology integration and product innovation for diversified application scenarios, enrich digital technology application scenarios, and deeply integrate digital technology into thousands of industries. The third is to activate the potential of data elements, enhance the development contribution of data element assignment enterprises, accelerate the cultivation of manufacturing transformation service ecology, lay out digital transformation promotion centers, and lower the threshold of digital transformation of SMEs.

Finally, improve the digital economy governance system and expand the autonomy of the digital economy.

First, continue to improve the top-level system design of digital economic governance, and accelerate the construction of an all-round, multi-level and three-dimensional institutional supervision system to improve the efficiency of digital development in view of new situations and new problems arising in the development of digital economy such as data confirmation, data pricing, data transaction and data security. The second is to promote the extension of social governance from physical space to cyberspace, build a data governance model that meets the new needs of digital and real integration development, strengthen the development of key technical standards such as general artificial intelligence, digital identity and data elements, and open up the rules and standard interfaces of digital and real integration. Third, actively participate in and promote the global governance of the digital economy, seize the opportunity window for the formulation of international rules for the digital economy, actively participate in the formulation of international standards and rules in key areas such as global data governance and cyberspace governance, contribute the experience and wisdom of China's digital economy governance, and accelerate the construction of an open, compatible, safe and efficient global digital economy governance system [7, p. 59].

Innovation Consortium is a cross-departmental, cross-regional and cross-ownership strategic cooperative organization composed of universities, scientific research institutions, enterprises and other innovative subjects voluntarily, with scientific and technological innovation as its core task, industrial structure adjustment and optimization and upgrading as its goal, breakthrough of major key technologies of industrial development as its main direction, and optimal allocation of resources as its main means. China can take the innovation consortium as the center and rely on the original platform of Qin Chuangyuan to stimulate the independent innovation ability of enterprises, accelerate the breakthrough of key core technologies and the construction of scientific and technological innovation platform, and promote scientific and technological innovation.

First of all, we should strengthen the independent innovation ability of enterprises. First, for large enterprise groups with conditions, encourage and support them to carry out technological innovation and R&D, reform management mechanism and develop innovation ability, develop a number of new R&D institutions with enterprises as the main body, and carry out R&D and innovation around important products and technologies that can represent the development direction of the industry; Second, increase energy to upgrade and improve the enterprise foundation such as relevant standards and quality, and also enhance the motivation of innovation; Thirdly, encourage manufacturing enterprises to innovate on the basis of digesting and absorbing imported advanced technologies, and obtain key and common technology supply through extensive technical cooperation with advanced enterprises in the world, and then master the core, so as to further enhance the innovative development ability of enterprises and drive the high-quality development of China manufacturing industry [8, p. 74].

Secondly, the innovation consortium should accelerate the breakthrough of key technologies. First, pay attention to domestic demand, focus on China's advantageous industries, and speed up tackling key core technologies. Accelerate the development of key core technologies in pillar industries such as electronic information and automobiles, organize the implementation of major R&D plans and key projects in key areas, continue to tackle key core technology

industrialization collaborative research, and connect the supply and demand of key technology products and promote their application. Strive to make breakthroughs in several fields and fill the technical shortcomings in tampering with new inputs and innovative outputs; Secondly, actively exerting the influence of enterprise innovation subjects, insisting on leading enterprises as the core, combining with the upstream and downstream of the industrial chain and establishing innovative enterprise consortia can provide great help for major scientific and technological projects and major engineering tasks. Build new development layouts in the latest research fields such as artificial intelligence, quantum information, blockchain and life health, and strengthen the competitiveness of new technologies such as 5G and ultra-high definition display. Third, promoting the transformation of basic research into industrial innovation, strengthening basic research and attaching importance to original innovation will bring more development possibilities to society.

Conclusion. Thus, the key to the future competition of the digital economy in China lies in mastering core technologies and promoting the deep integration of new technologies and the real economy to build an effective industrial environmental policy. The digital economy has become a key area of economic development.

Since the 18th National Congress of the Communist Party of China, China has promoted its vigorous development by issuing relevant policies and plans, and its scale has expanded 3.8 times significantly from 2012 to 2023. The scale of online retail sales and mobile payment is outstanding. The scale of major artificial intelligence industries is approaching 580 billion yuan, which has brought new kinetic energy to many fields. The digitalization of industries has reached a profound scale, and many demonstration factories and smart factories have been set up to help enterprises reduce costs and improve efficiency. Going forward, the Ministry of Industry and Information Technology will promote the digital transformation of various enterprises and the construction of digital parks. CCID Consulting has evaluated the top 100 cities of the digital economy in 2024, and different cities have their own scores in digital industrialization, digitalization of industry and vitality of digital economy development. China's digital economy has entered an accelerated development cycle characterized by rapid large-scale growth and a new stage driven by scientific and technological innovation. Its position in the national economy has improved, accounting for 42.8% of GDP. The growth rate is higher than the nominal GDP growth rate, which makes a high contribution to GDP growth, effectively improving the stability and vitality of the economy and promoting high-quality economic development.

China's digital economy faces many challenges in 2024, despite its remarkable development and remarkable achievements amid the accelerating global digital transformation. From the perspective of development dynamics, in the transition from high-speed growth to high-quality development, the growth of traditional digital industries has slowed down, emerging digital industries have not yet matured, and new kinetic energy is in danger of weakening, so stimulating new kinetic energy has become an important task. At the level of international competition, the United States and Europe have obvious advantages in key technologies, information resources and international markets, which has put great pressure on China. Compared with developed countries, China faces some challenges, such as the low degree of digital integration, the lack of innovation of key technologies, and the weak discursive power of competition rules in the digital era. At the technical level, key technologies are highly dependent on foreign countries, and the underlying technical logic is in danger of being replaced. At the application level, the digital integration of the three industries is unbalanced and lags behind developed countries, and it is difficult for a large number of small and medium-sized enterprises to realize digital transformation. At the institutional level, the international community faces the influence of the digital rules of developed countries, the construction of the domestic digital system lags behind the development of the digital economy, and the data management system and regulatory rules are not perfect.

The scale and competitiveness of China's digital economy is at the forefront of the world, ranking third in the global digital competitiveness ranking. The digital industry is ahead of the competition, but digital innovation and management are insufficient and their development is uneven, reflecting the immature development of the digital economy, insufficient industrial transformation, limited promotion of technological innovation and imperfect management.

The key to the future competition of the digital economy in China lies in mastering key technologies and promoting the deep integration of new technologies and the real economy to build a good industrial ecology. Therefore, it is necessary to plan the development trajectory. Including accelerating digital technology research and early deployment of key infrastructure, promoting the integration of digital and real, unlocking the potential of digital elements and improving the management system of the digital economy to expand autonomy. China takes the innovation consortium as the center and relies on the Qin Chuangyuan platform to strengthen the independent innovation capabilities of enterprises and promote the technological innovation of large enterprises. The innovation consortium should accelerate the breakthrough of key technologies, pay attention to solving key problems in promising industries, and promote the transformation of basic research into industrial research. In the era of digital economy, China is emphasizing digital development, accelerating the construction of digital infrastructure, promoting the formation of innovative advantages of manufacturing clusters, striving to form the effect of large-scale agglomeration of digital industries, and refining the software and hardware level of intelligent departments. The government has made great efforts to nurture leading enterprises with digital intelligence and make full use of the agglomeration features and cluster advantages of traditional manufacturing industries to narrow the gap with developed regions.

So, the authors of the article identified three core competitiveness factors of China's digital economy, on the basis of which a three-dimensional development trajectory of "technological breakthrough - integrated innovation and ecological construction" was formed. The novelty of the proposed development trajectory lies in the fact that it is considered for the first time in the form of a three-dimensional model, which allows us to overcome a number of limitations in the currently existing studies that focus on only one area of competitiveness or one development trajectory.

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АНАЛИЗ ТЕКУЩЕГО СОСТОЯНИЯ И ТЕНДЕНЦИЙ РАЗВИТИЯ ЦИФРОВОЙ ЭКОНОМИКИ КИТАЯ

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В эпоху стремительного технологического прогресса цифровая экономика стала мощной движущей силой глобального экономического роста и трансформации. Она проникла во все сферы жизни современного общества – от повседневного потребления до крупномасштабных промышленных операций. Китай, как одна из крупнейших экономик мира, находится в авангарде развития цифровой экономики, демонстрируя в последние годы заметный прогресс. Цель анализа – всесторонне изучить текущее состояние и тенденции развития цифровой экономики Китая. Изучение различных секторов, таких как электронная коммерция, цифровые финансы и развивающиеся отрасли с цифровыми технологиями, позволит нам получить глубокое понимание того, как Китай использует цифровые технологии для повышения экономической эффективности, инновационного потенциала и международной конкурентоспособности. Более того, выявление тенденций не только поможет спрогнозировать будущие направления развития, но и даст ценные знания политикам, бизнесменам и исследователям для выработки соответствующих стратегий в эпоху цифрового доминирования.

Ключевые слова: Китай, цифровая экономика, состояние развития, тенденции развития, анализ.