

# ***Study on the Limitations of Economic Digitalization and Development Strategies under the New Development Strategy***

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**Abstract:** With the rapid development of the digital economy and the rise of the industrial Internet, China has made significant progress in terms of industrial competitiveness and industrial innovation and development. However, China's capacity for independent technology innovation must be improved. Firstly, China's independent innovation capacity in key core technology areas could be more robust. This mainly manifests in China's reliance on imported technologies and equipment in high-end manufacturing and emerging industries. Although China has made certain technological breakthroughs in specific fields, there is a particular gap between China and the international advanced level. Secondly, the investment in technological research and development of Chinese enterprises must be increased. Although the R&D investment of Chinese enterprises is gradually growing as more attention is paid to scientific and technological innovation, there still needs to be a significant gap compared with developed countries. In particular, the R&D investment of small and medium-sized enterprises is relatively low, resulting in the overall level of independent technological innovation not being high. Again, China needs to strengthen the protection of intellectual property rights. For a long time, the construction of China's intellectual property protection system has been lagging, and the problem of intellectual property infringement is relatively prominent, which has formed a particular obstacle to independent technological innovation. Therefore, studying economic digital development restrictions and development strategies has profound theoretical and practical significance in the new development pattern.

**Keywords:** Digital Economy, Development Strategies, Technological changes

## **1. Introduction**

In 2020, with the global spread of the new coronavirus epidemic, the world's major economies have been hit hard in a number of ways. The current world economic recovery lacks momentum and needs to revive its original prosperity by finding new growth points. The digital economy, with the Internet and digital technology as its carrier, has become a new mode of economic development following the agricultural economy, industrial economy and information economy, and with its characteristics of high technological threshold, high permeability, high integration and high growth, it can become an important engine for promoting the recovery and prosperity of the world economy. However, under the new development pattern, although the rapid development of the digital economy is conducive to

alleviating the impact of the epidemic on the economy, its objective conditions still have certain limitations, and how to promote the digital transformation and intelligent upgrading of enterprises, promote the transformation of old and new kinetic energy, and inject a strong impetus for the long-term positive development of the world economy is the focus of the research in this paper.

## **2. Micro-foundational limitations of data and technology**

Unclear demarcation of data ownership is an important issue that limits the digitalization of the economy and leads to difficulties in the circulation of data [1]. In the era of the digital economy, data is recognized as an essential factor of production and economic resources, which plays a vital role in economic growth and innovation. However, several problems with the current division of data ownership impede the adequate flow and utilization of data. In the traditional economy, the ownership of resources often corresponds to the ownership of material resources, but in the digital economy, data ownership is unclear. Especially in the case of cross-border flows and cooperation, cooperation involving cross-border flows of data often needs to address the issue of data ownership. Uniform rules and standards are required for the division of data ownership at the international level, and there are specific legal and institutional barriers to data exchange and cooperation in different countries and regions.

## **3. The problem of meso-regulation of industrial disequilibria**

### **3.1. Technology-driven triggers chain back and unemployment**

Under the new development pattern, the economy's digital development has encountered a technology-driven problem, triggering the return of the industrial chain and unemployment [2]. With the advancement and application of digital technologies, some links in the traditional industrial chain have been replaced, resulting in the loss of job opportunities for a part of the labor force. With the widespread application of automation and intelligent technologies, the labor demand in many traditional industrial chains has been drastically reduced or completely replaced. Furthermore, the development and advancement of high-tech industries have also brought about a trend of industrial chain reflux, causing some countries to move back to their jobs that were initially performed in the production chains of other countries. Such chain migration is often accompanied by the large-scale introduction of machines and automated equipment, leading to labor unemployment.

### **3.2. The erosive nature of finance for the benefit of the real economy**

Finance is a necessary support and fundamental area of socio-economic development; however, under the new development pattern, the financial sector's erosive impact on the interests of the real economy has become increasingly prominent [3]. Financial institutions excessively focus on short-term interests and neglect long-term development. At present, financial institutions generally pursue high returns and invest a large amount of capital in financial products with higher profits but higher risks [4]. At the same time, the support and services for the real economy are relatively insufficient. This excessive pursuit of short-term gains has led to inadequate financial support for the real economy, thereby eroding the interests of the real economy to a certain extent.

## **4. Strategies for the digitalization of the economy in the new development landscape**

### **4.1. Promoting technological innovation to provide new dynamics**

Under the new development pattern, the promotion of technological innovation has become a critical link in the digital development of the economy and can provide new impetus for economic growth

[5]. Technological innovation can change traditional industries' production modes and organizational structures and improve production efficiency and product quality. Promoting technological innovation can provide new production factors. With the progress of science and technology and the application of innovative achievements, new aspects of production continue to emerge, bringing new impetus to the production process and value creation. Through technological innovation, enterprises can, with new technologies and resources, realize changes in production methods and improve production efficiency and product quality.

Technological innovation can promote the transformation and upgrading of the economy. With the development and application of digital technology, all industries are undergoing digital transformation. Through technological innovation, enterprises can use digital technology to change traditional business models and operation methods and realize the transformation from traditional industries to the digital economy.

Technological innovation can also promote cross-border integration of industries. In economic digitalization, the integration between different sectors has become a trend. Technological innovation can break down the barriers of traditional industries, promote cooperation and communication between different sectors, promote cross-border integration of industries, and promote industrial innovation and upgrading.

Promoting technological innovation can provide new kinetic energy for the digital development of the economy. Through technological innovation, enterprises can obtain new production factors and realize changes in the mode of production; technological innovation can also promote economic transformation and upgrading and facilitate the integrated development of industries. Therefore, under the new development pattern, promoting technological innovation has become essential for economic growth and is worthy of further in-depth study and promotion.

#### **4.2. Implement data-centric strategies**

Implementing a data-centered strategy is one of the critical paths for industrial Internet eco-platforms in developing the digital economy. Data is a core element of the digital economy and has great value and potential. By implementing a data-centric strategy, data resources can be fully utilized to promote developing and enhancing industrial Internet ecological platforms.

Implementing a data-centric strategy can promote the open sharing and flow of data. In the context of the digital economy, data is an essential driving force for economic development. By implementing a data-centric strategy, data silos can be broken, and the sharing and flow of data resources can be realized. Open sharing of data can promote the development of the industrial internet ecological platform and enhance the efficiency and effectiveness of the overall economy.

Implementing a data-centric strategy can promote the innovation and application of data technology. Data technology is essential for industrial Internet ecological platforms to realize digital transformation. By implementing a data-centric approach, enterprises and organizations can be guided to increase their investment in data technology innovation, promote the development and application of data technology, and enhance industrial Internet ecological platforms' digital capabilities and competitiveness.

In addition, implementing a data-centered strategy can build a data-driven governance model. In the era of digital economy, data plays a vital role in economic development and governance. A data-driven governance model can be built to improve the Government's digital governance capabilities by implementing a data-centered strategy. Through the data-driven governance model, the refinement and precision of governance can be realized, and the operational effect and management efficiency of the industrial Internet ecological platform can be improved.

Implementing a data-centric strategy can promote digital development and industrial convergence. Digital development and industrial integration are among the essential features of the digital economy.

The digital development and integration of different industries can be promoted through the implementation of data-centric strategies, and the optimal allocation of resources and maximization of benefits can be achieved in the digital economy. Through digital development and industrial integration, the synergistic cooperation and value creation between the industrial Internet ecological platform and various industries can be further strengthened.

Implementing data-centered strategies plays a crucial role for industrial Internet ecological platforms in developing the digital economy. By fully utilizing data resources, promoting the open sharing and flow of data, promoting the innovation and application of data technologies, building a data-driven governance model, and promoting digital development and industrial integration, it can facilitate the development and enhancement of industrial Internet ecological platforms and promote the high-quality development of the digital economy.

### **4.3. Enhancing the Energy Efficiency of Government Digital Governance**

With the rapid development of the digital economy, improving the energy efficiency of government digital governance has become an essential link in realizing the digital development of the economy. Under the new development pattern, improving the energy efficiency of government digital governance can effectively promote the development of the digital economy and realize the goal of high-quality economic development.

The improvement of the energy efficiency of government digital governance needs to be approached from several aspects. First, the Government needs to strengthen the construction of digital governance capacity and improve its digitization level and governance capacity by introducing advanced digital technologies and management methods. Second, the Government also needs to strengthen the integration and sharing of digital information resources, establish a unified digital information platform, and realize information sharing and collaborative work among departments. In addition, the Government should promote the establishment of digital governance norms, strengthen supervision and guidance in the digital development process, and provide guarantees for the healthy development of the digital economy.

In enhancing the energy efficiency of the Government's digital governance, the Government should also focus on promoting the integration of digital governance with traditional governance. Traditional and digital governance are complementary, and they support each other and jointly promote the digitalization of the economy. The Government should strengthen cooperation with various industries to jointly develop standards and norms for digital governance and facilitate the smooth implementation of digital governance. The Government should also maintain the cultivation and introduction of digital governance talents to improve the professional level of energy efficiency in digital governance.

At the same time, improving the energy efficiency of government digital governance also requires the utilization of the power of intelligent technology. The wide application of emerging technologies such as artificial intelligence, big data, and cloud computing can provide strong support for improving government digital governance and energy efficiency. The Government can realize the intelligence and efficiency of government services by establishing an intelligent digital platform. The Government should also use big data analytics and forecasting technologies to improve the science and accuracy of government decision-making. In addition, the Government can jointly promote the development of the digital economy by strengthening cooperation with technology enterprises.

In implementing the process of improving the energy efficiency of government digital governance, this study believes that it is essential to focus on constructing a long-term mechanism for the energy efficiency of government digital governance. Enhancing the energy efficiency of government digital governance should be a long-term process concentrating on continuous improvement and innovation. The government needs to establish a scientific evaluation mechanism to assess and optimize the

effectiveness of digital governance regularly. At the same time, the Government should also strengthen the supervision and evaluation of the Government's digital governance energy efficiency to ensure that the improvement of digital governance energy efficiency can genuinely promote the development of the digital economy. Enhancing the energy efficiency of governmental digital governance is a critical link in realizing the digital development of the economy. The Government should strengthen digital construction, promote the integration and sharing of digital information, strengthen the establishment of digital governance norms, focus on the integration of digital and traditional governance, and utilize the power of intelligent technologies while focusing on the establishment of long-term mechanisms to provide strong support for the digital development of the economy. Through these efforts, the energy efficiency of the Government's digital governance will be improved, laying a solid foundation for high-quality economic development.

## 5. Conclusion

In summary, when different countries and regions carry out digital economy cooperation under the new development strategy, data standards cannot be unified due to differences in digital rules and systems, which has a negative impact on cross-border data flows and further cooperation. Meanwhile, under the new development strategy, the traditional labour force has been replaced by machinery and equipment on a large scale due to technological progress and technological diffusion, and the involvement of financial institutions in production has caused the traditional industrial chain and the real economy to suffer a certain impact. Against this background, this study argues that a new digital economy development strategy should be constructed with basic technological innovation as the main focus and data assets as the centre, so as to improve government governance performance and promote the development of the digital economy.

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