Proceedings of ICFTBA 2026 Symposium: Digital Government, Finance, Accountability, and Sustainable Economic Development
DOI: 10.54254/2754-1169/2026.AB39155

Challenges and Pathways for Leveraging China's Digital Economy Toward Common Prosperity

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Abstract. Against the rapid expansion of China's digital economy, digital technologies have created new opportunities for economic development and improved access to markets and services, but their benefits are not necessarily distributed equally. This paper examines the challenges and pathways for leveraging the digital economy toward common prosperity. It identifies three major challenges: the digital divide across regions and generations, income inequality associated with skill differences, regional concentration, and technological change, and the concentration of market power and data rents in platform-based industrial digitalization. Based on these challenges, the paper proposes corresponding pathways, including improving digital infrastructure and age-friendly design, reforming data property rights and strengthening worker retraining, and promoting platform interoperability, transparent commission structures, and support for small and medium-sized enterprises. The analysis suggests that digital efficiency alone cannot automatically translate into shared prosperity and that institutional arrangements are needed to improve the distribution of digital economic benefits. These findings provide a framework for understanding how technological development can be combined with inclusive institutional design to promote more broadly shared economic gains.

Keywords: Digital Economy, Common Prosperity, Digital Divide, Income Distribution, Industrial Digitalization

1. Introduction

Under the development of Chinese modernization, the digital economy has become an increasingly important component of China's economy. In 2025, its added value reached 49 trillion yuan, accounting for 35% of GDP, while digital industry revenue reached 39.6 trillion yuan [1]. These figures demonstrate the growing importance of the digital economy, which may contribute to common prosperity through informatization, platforms, and wider access to information. For instance, e-commerce platforms can help rural people sell their products and develop tourism industries, while digital technologies can facilitate the sharing of resources and the provision of basic public services [2]. By overcoming geographical limitations and improving access to information and services, the digital economy has become an increasingly important potential driver of common prosperity [3].

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However, there still exist many potential issues with the development of the digital economy. First, the digital divide persists ubiquitously; the electrical product popularity rate is relatively low in rural areas. As electrical products rapidly develop, they become more difficult for older people to use, leaving elderly and rural populations marginalized. Second, platforms cannot promise a constant income for flexible workers like YouTubers; flexible workers lack formal protection and are controlled by algorithms. Third, production factors are controlled by platforms. Data-generated rents are disproportionately captured by platform capital rather than distributed among workers and users. These issues indicate that the digital economy alone is insufficient to achieve common prosperity. Therefore, the following sections examine these barriers and discuss possible pathways for making digital economic development more inclusive.

2. Challenges

While the digital economy has illustrated its significant potential to achieve common prosperity, its benefits remain unevenly distributed. For people who stay at a low income level, the development of the digital economy swallows their interests, which is against common prosperity. Therefore, there are three key challenges — the digital divide, income inequality, and monopoly in industrial digitalization— that threaten the goal of common prosperity.

First, the digital divide disrupts the completeness of the entire network. Whether or not the digital economy is developing fast, rural populations and elderly populations are facing a problem that is difficult for them to use electronic products. Nowadays, companies are trying to use fancy websites and ubiquity, with plenty of advertisements to attract customers; even the younger populations have lost their interest in online products. Therefore, this product differentiation competition resulted in market failure. A survey conducted in 2025 revealed that 65.8% of the elderly population found it "extremely difficult" to learn to use a cellphone [4]. Some elderly people said that "the APP reminds them to update at regular intervals, fearing that they might make a mistake at any step and forget too many steps." As a result, the influence of the digital divide remains constant and is even getting harder to solve.

Second, the issue of income distribution still exists. The development of the digital economy has exacerbated the income distribution differences across regions and skill levels [5]. Industrial digitalization accelerates a growing skill premium. Especially in technology industries, the wages of high-skilled workers have been constantly increasing, but the wages of low-skilled workers remain at the standard low level; Some of the low-skilled workers are experiencing structural unemployment. While the Gini coefficient has declined from 0.491 in 2008 to 0.465 in 2024, the Gini coefficient remains above 0.4 (international warning line) [6]. For regional income distribution inequality, the digital economy industries are heavily concentrated in eastern cities; eastern cities and inland regions cannot get digital jobs that have high wages. The different income distribution will lead to a decline in the expansion speed of middle-income populations. In other words, hinder the path to common prosperity.

Third, monopoly in industrial digitalization concentrates market power and digital rent in a few digital platform companies. As the digital economy is developing rapidly, lots of traditional companies have started the process of digital transformation. Therefore, the platform companies are using the network effect and data advantages to control the market. The food delivery company is a realistic example: comprehensive platform fees—including technical service charges, delivery fees, and promotional costs—can reach 25 to 30 percent of order value [7]. This compels small restaurants to exit the digital food industry and be displaced by major food chains. Because of the disadvantage of unaffordable technology costs and digital talent, small and medium-sized

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enterprises (SMEs) are facing huge barriers in the process of digital transformation. These difficulties are exacerbating the disparity between large enterprises and SMEs. This monopoly structure means that revenue goes to platform capital, rather than to normal workers, employees, and consumers.

Taken together, these three challenges indicate that pursuing only digital efficiency is insufficient to achieve common prosperity. The digital divide excludes vulnerable groups, income inequality concentrates gains among the privileged, and monopolistic structures in industrial digitalization prevent broad-based sharing. Without targeted reforms, the digital economy risks widening inequality. The following section explores potential solutions from an economics perspective.

3. Solutions

Addressing these three challenges requires targeted institutional reforms grounded in economic principles rather than policy interventions. Each challenge corresponds to a specific form of market failure, and each solution aims to align private incentives with the goal of shared prosperity.

First, reducing the digital divide requires government intervention to address the market failure. To eliminate this market failure, society must create the positive externalities, such as accessible design and rural broadband. These positive externalities not only benefit the users but also benefit large firms and society. The government should treat digital infrastructure as a quasi-public good, expanding the rural areas and areas that lack services. Ensure the chances that everyone can access major websites and applications. To deal with the rooted problems, governments should help elderly populations and improve the elderly-friendly mode; not just increasing the size of the font, there should be fewer functions and easier use. These measures could prevent vulnerable groups from being excluded from the benefits of the digital economy, helping to achieve common prosperity.

Second, in the early 20th century, landlords controlled most of the land, the production factor of agriculture; likewise, the features of the digital economy mean that data, the key production factor, is owned by large platforms [8]. To solve income distribution inequality, how to distribute the rents (revenue) is the core issue. Nowadays, some workers are experiencing structural unemployment; when they get fired, they face financial stress. Many of them choose to be food delivery drivers and taxi drivers, and their revenue is exploited by platform companies. To curb malicious competition, the digital services tax could be used to increase the positive externality, help to make up for the workers' revenue that is reduced due to digital transformation, and increase protection for workers under the control of platform companies. Using the tax to redistribute the digital revenue back to workers from capital. Finally, reduce income distribution inequality.

Third, curbing monopolies in industrial digitalization requires policies and support for SMEs. Platform companies use network effects to exploit merchants, workers, and consumers [9]. However, the government should make the commission transparent and pursue the visualization of revenue, ensuring the protection of rights. The government guarantees the rationality of the commission. Make the commission method open and transparent. To reduce unhealthy competition, users should be allowed to access different platforms and applications, obtain services, and use data. Therefore, increasing interoperability and ensuring healthy competition allow more SMEs to engage. Additionally, it decreases deadweight loss and resource misallocation, reducing market failure. Meanwhile, SMEs should have opportunities to achieve digitalization; governments should use taxes that curb the monopoly of large platform companies to supply subsidies for SMEs, decreasing the financial barriers. This ensures the rational distribution among consumers, workers, and SMEs, rather than being obtained almost entirely by platform capital.

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In summary, bridging the digital divide, reforming income distribution, and curbing platform monopolies represent three complementary pathways for improving the efficiency of the digital economy toward common prosperity. By correcting market failures and ensuring that digital gains are broadly shared, these reforms can transform the digital economy from a source of inequality into an engine of inclusive growth. The following section discusses prospects for these reforms.

4. Future expectations

The digital economy is shifting from rapid scale expansion to high-quality, inclusive growth. As AI matures and institutions evolve, the focus moves from growing the digital pie to sharing its benefits broadly.

First, AI integration boosts productivity across industries, from manufacturing and agriculture to education. Affordable AI computing power now serves SMEs, not just large firms or platforms, much like electricity became a universal utility in the 20th century. This lowers technical barriers and spreads innovation benefits more widely. Second, institutional frameworks are maturing. Under the "three-right separation" model, clear data property rights will enable fair revenue sharing, letting workers and users capture value from their data. Digital services taxes and platform-specific regulations will level the playing field for small businesses and ensure data as a production factor drives shared prosperity, not wealth concentration.

Third, digital inclusion is becoming a policy priority. Nationwide digital literacy programs will target older adults and low-skilled workers; age-friendly design will be mandatory for major apps and public services. Social protection systems will adapt to the flexible workforce, offering portable benefits across platforms and jobs, narrowing the digital divide and enabling vulnerable groups to participate meaningfully. Fourth, regional balance is improving. Initiatives like "East Data, West Computing" relocate computing infrastructure to inland provinces, generating local digital jobs and investment [10]. As digital infrastructure becomes universal, the gap in digital economic activity between coastal and inland areas will narrow, supporting balanced regional development.

In short, the digital economy's future hinges not only on technological progress but also on inclusive institutions. Only when efficiency gains hand-in-hand with fair distribution can it truly drive common prosperity for all, not just a few.

5. Conclusion

In conclusion, the digital economy represents both an opportunity and a challenge for China's pursuit of common prosperity. Its expansion—reaching 49 trillion yuan in value added and accounting for 35 percent of GDP in 2025—has generated wealth, created employment opportunities, and lowered barriers to market access. However, these gains have not been evenly shared. Digital efficiency alone is insufficient for common prosperity; without deliberate institutional design, the digital economy risks widening inequality. This paper identifies three interrelated challenges. First, the digital divide persists across generations and regions, marginalizing elderly and rural populations from essential services. Second, income inequality is reinforced by the growing skill premium, the concentration of high-paying digital jobs in eastern coastal cities, and automation-driven job displacement. Although China's Gini coefficient declined from 0.491 in 2008 to 0.465 in 2024, inequality remains a concern. Third, platform monopolies concentrate market power and data rents, while high commissions place pressure on small merchants and workers.

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To address these challenges, this paper proposes three pathways. Bridging the digital divide requires treating digital infrastructure as a quasi-public good and promoting age-friendly design. Reducing income inequality calls for data property rights reform, digital services taxes, and retraining programs for displaced workers. Curbing platform monopolies requires interoperability, transparent commission structures, and targeted subsidies for SMEs.

These findings suggest that digital development should be redirected toward inclusive outcomes rather than slowed down. This paper terms this approach "inclusive efficiency": combining technological progress with institutions that promote fairer distribution. Only when efficiency gains are shared more equitably can the digital economy become a sustainable engine of common prosperity.

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