

# *Employment Issues and Countermeasures for University Graduates in the Context of the Digital Economy*

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**Abstract:** As a new key production factor, data plays an important role in economic development. With the continuous progress of information technology, the development of digital economy has gradually become the universal consensus of all countries in the world, promoting the profound change of the global economic structure. While the digital economy injects new momentum into the job market, it also triggers structural unemployment, shortcomings in digital platform mechanisms, and changes in the employment perceptions of university graduates. The employment situation for university graduates is becoming increasingly severe. To guide graduates in correctly recognizing and seizing the employment opportunities and challenges presented by the digital economy, various stakeholders must act, including the government, higher education institutions, and the graduates themselves. This can be achieved by further strengthening the integration of education and industry, fully utilizing digital technology to establish service platforms, deepening digital talent training and education system reforms, promoting the enhancement of graduates' digital skills, and fostering correct employment perceptions to achieve high-quality employment.

**Keywords:** Digital economy, university students' employment, high quality employment.

## 1. Introduction

With the arrival of the digital economy era, cutting-edge digital technologies such as 5G, artificial intelligence, cloud computing, and big data are deeply integrating into various sectors of the social economy at an unprecedented level. China's digital economy has also experienced rapid and high-quality development. According to the Research Report on the Development of China's Digital Economy (2024) published by the China Academy of Information and Communications Technology, in 2023, the scale of China's digital economy reached 53.9 trillion yuan, firmly maintaining its position as the second largest in the world. The digital economy serves as an important engine for steady economic growth and transformation. However, the digital economy breaks the temporal and spatial limitations of most employment groups, creating a new employment model based on digital technology. This transformation plays a crucial role in promoting the development of emerging industries and increasing employment opportunities. As employment patterns continue to evolve, there has been a reduction in lower-skilled jobs in some traditional industries [1]. In line with the trend of digital economic development, utilizing digital technology to improve employment issues for university graduates is a vital issue concerning people's livelihoods.

In 2024, the number of university graduates in China is expected to reach 11.79 million, an increase of 210,000 compared to the previous year. This figure signals that graduates are about to face unprecedented challenges in the job market. The challenges graduates encounter include but are not limited to, intensified competition in the job market, saturation in certain industries, and the mismatch between graduates' professional skills and market demands. After the COVID-19 pandemic, the global economy has been affected by multiple factors, showing a downward trend. The increasing uncertainty in both international and domestic markets further complicates and intensifies the challenges of graduate employment.

A review of relevant literature reveals the multidimensional nature of the graduate employment issue. Xu Dandan and Ma Rongfan, from a psychological perspective, argue that university students' confusion about employment and their negative, avoidant attitudes exacerbate the adverse impact on employment [2]. Tian Yi and Yang Limin, from the perspective of university institutions, suggest that disruptions in university-enterprise communication, increased competition for jobs, and the survival dilemmas faced by enterprises are direct challenges influencing graduate employment [3]. John K. believes that the expansion of higher education has led to difficulties in the Chinese graduate labor market [4]. Therefore, addressing the employment issues of university graduates requires a comprehensive approach that not only focuses on students' psychological well-being and the quality of education but also enhances university-enterprise cooperation and market alignment while actively responding to changes in the external economic environment.

This paper aims to conduct a comprehensive analysis of the employment issues and countermeasures for university graduates in the context of the digital economy. The first part will describe the current employment situation for graduates. The second part will elaborate on the employment problems caused by the development of the digital economy. In the third part, this paper will propose measures to promote high-quality employment from the perspective of digital technology, focusing on graduates, universities, and the government.

## 2. Analysis of the Employment Status of College Graduates

The employment issues faced by university graduates not only affect individuals' overall development but also have significant implications for the sustainable development of the social economy. Currently, the difficulty in securing employment and the scarcity of job opportunities for university graduates have become major societal concerns. In 2024, the number of university graduates in China is expected to reach 11.79 million, an increase of 210,000 compared to the previous year. The primary reason for this growth is the implementation of policies aimed at expanding university enrollment. On the one hand, this expansion has elevated the overall educational level of the population; on the other hand, it has exacerbated the imbalance between supply and demand in the job market. The annual increase in university graduates is outpacing the growth in available job positions, and the recruitment requirements of employers are becoming increasingly stringent, with higher standards being set. Consequently, graduates are facing heightened pressure to secure employment, leading to an increasingly competitive job market.

The employment situation for university graduates in China is becoming increasingly complex and variable. Graduates face not only the pressure of job scarcity but also structural contradictions in the job market. Given the current challenging employment landscape, many university graduates tend to seek more stable job positions after graduation, such as those in government agencies and state-owned enterprises. These stable positions are in high demand, leading to intense competition. In contrast, jobs that require higher technical skills present a completely different employment outlook. At present, China faces a shortage of 22 million highly skilled workers, a number that is expected to exceed 30 million by 2025. The labor market's demand for high-quality, highly skilled, and innovative talent far surpasses the available supply, creating a structural imbalance [5]. In this

environment, university graduates must continually acquire the technical knowledge demanded by the market, accumulate work experience, and adapt flexibly to changes in labor market demands. Additionally, graduates show distinct preferences when choosing employment locations. Popular regions and cities are becoming increasingly dominant in job searches, with graduates favoring economically developed areas such as Shanghai, Hangzhou, Nanjing, and other cities in the Jiangsu-Zhejiang-Shanghai region, as well as Wuhan in Hubei Province. In contrast, there is a significant talent drain from less-developed, remote areas, leading to intense competition for jobs in developed regions while less-developed regions struggle to attract university talent. Moreover, the employment prospects for university graduates are vulnerable to the pressures of the broader socio-economic environment. Factors such as the prolonged impact of the COVID-19 pandemic, a slowdown in economic growth, and the transformation and upgrading of enterprises under the digital economy have all introduced instability and uncertainty into the job market.

### **3. Employment Issues of University Graduates in the Context of the Digital Economy**

#### **3.1. Structural Unemployment**

The development of emerging industries in the digital economy has also led to structural unemployment. In *Das Kapital*, Karl Marx proposed that “the productivity of labor, developed as an automatic process of labor materials, presupposes the subordination of natural forces to social intellect.” Changes in social production methods inevitably lead to changes in labor demands. In the digital economy era, the widespread application of automation technologies and artificial intelligence has replaced repetitive, non-creative labor, creating a “machine-for-labor” situation. Currently, China’s industrial structure is still dominated by labor-intensive industries. As many enterprises adopt automated machinery to replace lower-skilled workers, these displaced workers may not immediately transition to the new positions created by digital technology. Job transitions and re-employment cannot seamlessly connect, which may pose short-term risks of large-scale unemployment. On the other hand, the digital economy has a significant “knowledge economy” characteristic, imposing higher requirements on the professional skills and qualifications of university graduates. However, the current setup of higher education disciplines and the pace of content updates struggle to keep up with the demands of the digital era. The misalignment between academic content and job requirements results in a mismatch between graduates’ knowledge, skills, and the needs of the digital economy. The supply of digitally skilled talent is insufficient [6]. Traditional job positions are being replaced by machines, leading to an oversupply of labor, while the supply and demand for jobs in emerging industries remain imbalanced, hindering overall employment stability.

#### **3.2. Employment Perception Issues of University Graduates**

University graduates’ employment perceptions are influenced by traditional values and social environments, often leading to a tendency to conform, avoid challenges, and seek stability. This mindset causes many students to overlook their strengths and interests, resulting in a lack of drive for innovation and self-challenge. In the rapidly evolving digital economy, some students are reluctant to confront the changing job market, hesitant to step outside their comfort zones and show little initiative in learning new digital technologies. Many feel intimidated by the increasingly competitive labor market, prompting them to delay entering the workforce. The rising number of students pursuing further education to gain a competitive edge in the job market underscores this trend. In 2023, 4.74 million individuals applied for graduate programs in China, while only 1.3017 million were admitted. Survey data indicates that over half of the candidates chose to pursue graduate studies due to difficulties in finding employment. However, the growing number of graduate degree holders may diminish the employment advantages of such qualifications, leaving the job situation still

challenging. In 2024, the national civil service exam plans to recruit 39,600 positions, yet 3.033 million candidates passed the initial eligibility screening. This reflects intense competition for civil service roles and highlights the strong preference among graduates for job stability. This phenomenon indicates a prevailing risk-averse mentality among graduates concerning their employment prospects.

### **3.3. Issues with Digital Platform Employment Services**

With the advancement of digital technology, universities are increasingly adopting digital platforms to provide employment services for graduates, such as basic job resources and vocational skills training courses. Current students can utilize these services to improve their professional skills and competencies, thereby increasing their competitiveness in the labor market. However, existing university digital platforms have several shortcomings, which are evident in the following areas: First, the platforms tend to be overly simplistic and lack personalized services, making it difficult to fully meet the diverse employment information needs of university students. Second, due to the need to address network security concerns and the absence of automated tools for quickly reallocating resources, the efficiency of utilizing available information resources is relatively low. As a result, these platforms are unable to promptly respond to students' demands for employment-related information [7].

## **4. Promoting High-Quality Employment for University Graduates in the Context of the Digital Economy**

### **4.1. University Level**

Universities must focus on cultivating students' digital literacy, strengthening the development of disciplines related to the digital economy, and improving the construction of digital platforms. First, through deepening university-enterprise cooperation and integrating education with industry, universities need to fully leverage high-quality educational resources to align with the new job opportunities created by the digital economy. Tailored skills training and employment guidance should be provided to students for different types of jobs and labor demands, minimizing the mismatch between job openings and job seekers. It is essential to ensure that both the academic content and extracurricular practices offered by universities are closely integrated with the digital economy, thus building professional clusters aligned with this economic model. This involves refining relevant curricula and emphasizing the development of digital talent to meet the growing demands of the digital economy for skilled workers [8]. In addition, universities should innovate the models and technological levels of their digital platforms, increasing investment and improving management. Establishing a comprehensive digital platform management system will enable these platforms to recommend more accurate and effective employment information and offer multifaceted employment services. This would ensure that students can more easily access digital platforms to achieve high-level employment.

### **4.2. Government Level**

The government should consistently prioritize an employment-first strategy and establish a policy framework that supports university graduates' employment in line with the development of the digital economy. Fostering graduates' digital skills and enhancing their employability is a systematic endeavor that requires the collaborative efforts of the government, universities, businesses, and society at large. On one hand, the government can implement fiscal policies, such as providing tax subsidies and loan incentives to digital enterprises, encouraging them to stabilize positions and expand employment. Additionally, the government can facilitate relevant vocational training for

university graduates, creating a collaborative employment support network led by the government, with cooperation from businesses and universities to promote high-quality employment. On the other hand, the government should intensify efforts to guide and cultivate high-skilled talent, encouraging university students to actively participate in innovation and entrepreneurship activities to enhance their employment opportunities and success rates. This includes strengthening policy support for graduates through government financial investment, social security systems, unemployment insurance, and digital economy infrastructure [9]. Furthermore, it is essential to supervise and manage the recruitment processes of enterprises, improve relevant laws and regulations, and protect the legitimate rights and interests of graduates during their job search, ensuring the orderly and equitable functioning of the labor market.

### 4.3. Individual Level

In the era of the digital economy, promoting high-quality employment for university graduates requires not only guiding them to develop the right employment mindset and rationally select employment locations but also enhancing their overall abilities and fostering their all-round development. First, university graduates should have clear career plans, leveraging their strengths and talents to find job positions that align with their personal interests and long-term development goals. It is also crucial for them to understand the trends and prospects of different industries and professions, avoiding blind job choices or the avoidance of employment challenges. Second, in the rapidly evolving digital economy, knowledge is updated at a swift pace. Graduates must adopt a mindset of lifelong learning, continually updating their professional knowledge systems. They should also actively engage with high-quality courses on digital platforms to learn interdisciplinary knowledge, improve their digital literacy, and foster innovation skills. This will lay a solid foundation for future employment needs. Additionally, by participating in knowledge sharing, teamwork, and hands-on practice, graduates can enhance the core competencies required in the digital economy [10].

## 5. Conclusion

The digital economy has become an inevitable trend in China's economic development, bringing both opportunities and challenges to the university graduate job market. In this context, promoting the high-quality employment of university graduates is a critical social issue. Achieving this goal requires the joint efforts of the government, universities, graduates, and businesses. Through improving digital literacy, fostering the right employment mindset, building effective digital platforms, and providing strong policy support, graduates can be better equipped to adapt to the evolving job market in the new economic landscape. Employment is a crucial factor in maintaining social stability. In the future, as the digital economy continues to develop at a rapid pace and the graduate job market evolves, it is essential to stay attuned to the real needs of the times. This will require continuously exploring new methods, pathways, and dimensions for high-level employment. With the collective efforts of all sectors of society, people can help graduates achieve better career development, ultimately realizing the goal of "stable employment" and promoting the sustainable and healthy development of the social economy.

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