

## **Analysis of the Impact of the Development of Digital Economy on the Employment of College Students**

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**Abstract:** The digital economy's fast growth has influenced jobs. The development of digital technology's application scale is precisely why the digital economy influences employment. The transmission mechanism of the digital economy impacting employment has been studied, and it has been discovered that while the digital economy reduces specific labor roles, it also produces new jobs, which impacts college students' employment choices. This study examines what kinds of work choices and justifications college students make under the effect of the digital economy's development, based on an examination of the transmission mechanism of the digital economy's influence on employment positions. Based on the China Stock Market & Accounting Research Database's financial statement data (CSMAR). This study finds that the digital economy has influenced college students' employment choices, with college students preferring technology-intensive digital technology positions, information technology-related industries, First-tier Cities, and New First-tier Cities, based on job salary, job demand, employment number, and other data from the China Undergraduate Employment Report from 2017 to 2021. In the digital economy, the curriculum of colleges and universities should be adjusted in the future, foreign talents should be introduced, and pre-job training for undergraduates should be improved to improve the employment rate and quality of college students, as well as to reduce the losses caused by unemployment and mismatch between jobs and skills in the conversion of new and old jobs.

### **1. Introduction**

China's economic growth has been aided by the fast expansion of the digital economy. On the one hand, digital technology is integrated with other industries to significantly boost worker productivity in the industry lower production costs, and commodity prices, thereby expanding commodity demand. At the same time, residents' income and consumption will increase due to increased labor productivity. While boosting the digital economy, the fast expansion of information technology has a profound impact on employment. On the one hand, it creates some jobs.

On the other hand, automation replaces some human labor due to its higher labor productivity. According to the China Statistical Yearbook 2020, the number of employees in China has shown a downward trend since 2014. The number of employees in urban non-private organizations has dropped from 182.778 million in 2014. As of 2019, there were 171.618 million people, of which the number of people employed in manufacturing dropped from 52.79 million in 2013 to 38.32 million in 2019[1]. The digital economy is impacting college students' employment, and it has become a key point to promote the improvement of their employment quality through the application of digital technology. On October 20, 2021, the National Development and Reform Commission emphasized the creation of more high-quality jobs suitable for youth groups [2]. Dealing with changes in college students' employment in the digital economy is an issue worth investigating. College students' education must adapt to changing work conditions. The replacement of some positions will inevitably cause the unemployment problem of college students. So, thinking about how to match the abilities of college students with social needs and improve the quality of employment and employment rate of college students are problems that need to be solved under the advancement of digital technology.

This study contributes to advancing theories about the digital economy and employment. A further in-depth investigation of the transmission mechanism of the digital economy's influence on employment is conducted in the theoretical basis section, which verified that the digital economy would replace some occupations while generating others. This research is also helpful in dealing with the influence and impact of the digital economy on college student employment. The digital economy creates some jobs through theoretical analysis while replacing some. It can be affirmed that the hot jobs the labor demand of different jobs, industries, and regions have significantly changed, resulting in a mismatch between labor supply and demand. The training of college students is mainly employment-oriented. The college students exported to society are expected to meet market demand and have more significant development potential. As a result, the degree of matching between market work opportunities and college training and the quality of employment has long been a focus of government and society. Following an examination of the employment-related forms of college students in China in the digital economy, recommendations are made. This will aid in resolving college students' job issues, maximizing the benefits of the digital economy, improving the digital industry ecology, and increasing the employment rate and quality of college students. It is of great significance.

This article examines the mechanism by which the digital economy's development is transmitted to employment positions and then examines the impact of the digital economy on college students' employment choices, focusing on the number of employees in new formats and fields, popular industries, and positions, and employment choices. It is found that while the digital economy has created and eliminated some jobs, it has encouraged more people to enter new formats and fields choose information technology-related industries and digital-related jobs. More digital talents choose first-tier cities and new first-tier cities. Finally, pertinent recommendations are made on promoting employment in the digital economy and how to encourage digital economy growth through job promotion.

## **2. The transmission mechanism of the digital economy affecting jobs and popular jobs**

### **2.1 The growth of the digital economy reduces jobs**

#### **2.1.1 Companies tend to automate technology**

Due to the digital economy, information technology's fast advancement has made the labor productivity of machine automation equipment higher than that of the workforce, and at the same time, the production cost has been reduced. More companies tend to use machine automation equipment on a large scale to replace labor. Since 2015, the growth rate of China's robot industry has been significantly higher than the global level. Industrial robots account for roughly a third of the worldwide market, while service robots account for roughly a quarter. It is the largest market for industrial robot applications globally [3]. The automation of machinery and equipment is applied on a large scale in the logistics industry. The intelligent logistics market was worth over 400 billion yuan in 2018, and it is expected to be worth over one trillion yuan by 2025 [4]. Higher labor productivity and lower costs make companies use machine automation equipment instead of the workforce. The construction of JD's unmanned warehouse and unmanned distribution system replaces some traditional warehousing personnel and couriers, reducing labor costs and improving distribution efficiency. Cainiao Station deploys a new generation of intelligent warehousing bases represented by artificial intelligence and robots to help increase logistics speed. The Cainiao Voice Assistant function uses artificial intelligence technology to automatically make massive calls at the same time to contact consumers in advance and feed the results back to the courier. The logistics customer service artificial intelligence brain works with 1.2 million customer service personnel to respond to abnormal package delivery in real-time and improve logistics services Efficiency [5].

### **2.1.2 The digital economy changes the operation process of some industries**

The digital economy has changed the operating processes of some industries, leading to the disappearance of some jobs. The digital economy has not changed the original operation process in industries such as logistics and accounting. However, directly replaced machines' labor required in each link. Intelligent robots, big data tools, and crewless vehicles that rely on essential technologies such as the Internet of Things (IoT) and artificial intelligence are replacing workers who undertake packaging, shipping, loading, and unloading, and storage in traditional logistics (AI). Machine and other automation equipment are completed. The digital economy has changed operational processes in e-commerce, wholesale, and retail. The fast growth of e-commerce has altered buyers' and sellers' transaction processes and the positions of intermediary intermediaries. The traditional commodity market includes producers, first-level agents, second-level agents, distributors, retailers, etc. E-commerce realizes direct and efficient communication between producers and consumers. Through network platforms and advanced logistics, products can be sold directly to consumers through producers, enabling agents, distributors, distributors, and retailers at all levels in the traditional intermediate links. Businesses were hit, and many related jobs disappeared.

E-commerce companies like Taobao, JD, and Pinduoduo have impacted offline shops. Taobao(<https://www.taobao.com>) is Asia-Pacific's largest online retail and business district [6]. JD (<https://www.jd.com>) is the largest 3C online shopping platform in China's B2C market [7]. Pinduoduo (<https://www.pinduoduo.com>) is China's second-largest e-commerce platform [8]. Sellers directly provide product information on these platforms. Buyers and sellers communicate directly through the platform during the transaction process. Therefore, intermediate costs reduce. The disappearance of agent positions at all levels and physical stores reduces commodity prices, increasing the competitiveness of e-commerce companies, thus having an impact on offline stores.

## **2.2. The advancement of the digital economy expands labor demand**

The digital economy's growth has increased the size of the sector and the need for labor, and the number of people employed. From the perspective of commodity prices, the development of information technology reduces commodity prices by reducing production costs, thereby expanding the demand and output of commodities under the condition of constant nominal income and expanding the scale of the industry, leading to increased demand for labor and employment by enterprises, which contributes to the expansion of the scale of employment.

### **2.2.1. Reduced management costs**

The growth of the digital economy encourages the widespread usage of network platforms while lowering management expenses. Under the condition of the same corporate budget, there are more funds to expand the company's scale, and other costs remain the same. The reduction of management costs reduces the cost of goods and the price. The decline stimulates market demand and expands the scale of the industry.

According to the China Stock Market & Accounting Research Database's financial statement data (CSMAR), the management expenses will decrease if operating income remains the same. As operating income represents enterprise-scale, it can be found that management expenses decrease while enterprise-scale remains the same. The reduced management costs mainly include two parts. The first part is the reduced depreciation and repair costs because of the reduction of fixed assets. The second part is the reduced rent, office expenses, travel costs, transportation costs, water and electricity costs, vehicle costs, and cleaning fees due to converting some offline offices to online offices. The use of digital technology in education can effectively reduce fixed asset depreciation expenses, repair expenses, rent, office expenses, travel expenses, transportation expenses, water and electricity expenses, vehicle expenses, and sanitation expenses. The course will make extensive use of one-way media like radio and television and two-way media such as telephone, online meetings, video conferences, and live streams to replace face-to-face interaction between teachers and students, saving money on venue rent, water, and electricity and cleaning costs.

In addition, one teacher can teach many students online, reducing labor costs to some extent. At the same time, it also reduces the cost of transportation for students and teachers to get to their teaching places. Both of these stimulate more students to choose Online courses, which expands the supply due to the expansion of demand for services. On the other hand, companies use the saved management costs to expand the company's scale.

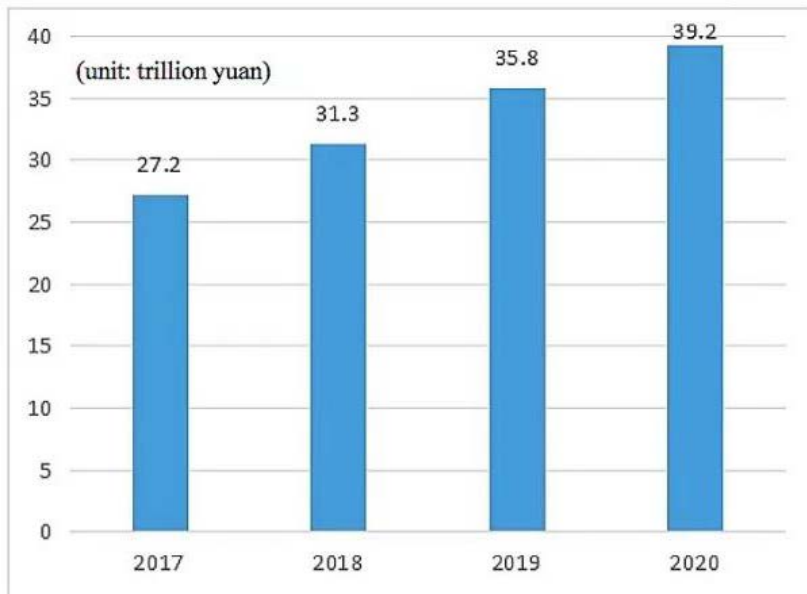


Figure 1. Digital economy scale of China [9]

The continuous increase of the digital economy scale of China from 27.2 trillion yuan in 2017 to 39.2 trillion yuan in 2020 shows the expansion of the digital economy scale of China. Meanwhile, the increase in management expenses is generally lower than the increase in the operating income. Therefore, it can be asserted that the expanding use of digital technology in company of China causes a slower increase of management expenses than the increase in operating income, which means the use of digital technology decreases the management expenses.

### 2.2.2 Equipment cost reduction

Automated machinery and equipment replace the workforce, increase labor productivity and reduce commodity prices. Moore's Law of digital technology reflects that the cost of automated machinery and equipment is constantly being reduced at regular intervals: at the same current price, every 18 to 24 months, the number of components that may be handled on an integrated circuit double. Therefore, the price of capital equipment is lowered. The reduction in the purchase price of capital equipment will reduce the production cost of products, thereby reducing commodity prices and expanding commodity demand; on the other hand, the saved production costs will be used again for investment, thereby expanding the scale. For management automation companies, the performance and cost of computer technology equipment are critical. The continuous increase in the number of transistors on integrated circuits has led to the rapid development of chips, processors, and servers, thereby driving the development of computers and reducing the cost of computer equipment. Under Moore's Law, Intel effectively improves the server's computing speed and dramatically reduces the cost and expense of the server, thereby promoting the transmission speed of the entire Internet and significantly improving the development level of the Internet [10].

### 2.2.3 Labor costs reduced

Employee salary, training fees, employee social insurance, endowment insurance, medical insurance, unemployment insurance, employment injury insurance, maternity insurance, and housing provident fund are all factors that influence employment expenses. Automated machinery and equipment reduce the number of employees, lower employee salaries, and reduce training costs; flexible employment reduces employee social insurance, endowment insurance, medical insurance,

unemployment insurance, employment injury insurance, maternity insurance, and housing provident fund—machines as well as equipment that are automated boost labor productivity. One employee can drive more automated machinery and equipment. Automated machinery and equipment have more output per unit of time than the workforce. Employees only need to be trained when they use automated machinery and equipment for the first time to reduce the additional employee training fees paid by the company when new automated machinery and equipment are added. By transforming the traditional employment relationship between employees and the company into a business contracting partnership, flexible employment reduces the social security fees that companies should pay for employees under the employment relationship. This phenomenon is particularly evident in the sharing economy platform gig workers. Fewer and fewer sharing platforms sign labor contracts with Online Hires. Instead, they claim gig workers to be partners. There are about 4 million full-time online drivers in Didi Taxi that provide services for its platform, all of whom have no labor relationship with the platform but are partners [11].

#### **2.2.4 The demand for digital talents drives new positions**

The need for high-quality digital technology expertise and related professions has surged in the digital economy. The use of digital technology aids enterprise development, and enterprises pay greater attention to digital technology expertise. This effect is pronounced in the logistics industry. Traditional logistics is a labor-intensive industry, while smart logistics requires talents with advanced logistics technology. After taking the post, it needs to complete related tasks with automation equipment. Technicians must guarantee that the entire express delivery process is running well and complete the operation, maintenance, and system design of automated equipment. Cainiao's smart logistics has produced industrial robot system operators, industrial robot system operation and maintenance personnel, artificial intelligence engineers and technicians, and Internet of Things engineering and technical personnel as a result of the continuous use of critical technologies such as the Internet of Things (IoT) and artificial intelligence (AI). A slew of new jobs has emerged, including installing and debugging the Internet of Things (IoT).

### **2.3 Digital technology-related positions have become popular positions**

Under normal circumstances, high salary and high demand are essential conditions for becoming a popular position. The market demand for a position is positively related to the salary level. The state's policy support for artificial intelligence and chips has promoted enterprises' demand for research and development and chip-related talents. At the same time, the wide application of artificial intelligence robots in all walks of life has increased the demand for them. The increase in demand has prompted artificial intelligence-related positions and chip-related positions to become popular positions and drove research and development positions to become popular positions.

#### **2.3.1 The development of artificial intelligence drives research and development positions (R&D positions)**

After artificial intelligence has become a national strategy, the development of artificial intelligence has been aided by government backing, which has raised the need for artificial intelligence professionals. At the same time, the characteristics of application-level and industry integration have allowed artificial intelligence to penetrate all aspects of life. People from many walks of life are using artificial intelligence to boost labor productivity and cut expenses, and the demand for artificial intelligence-related talents in various industries has increased. The demand for artificial intelligence in the country and the market increases the salary of artificial intelligence-related positions.

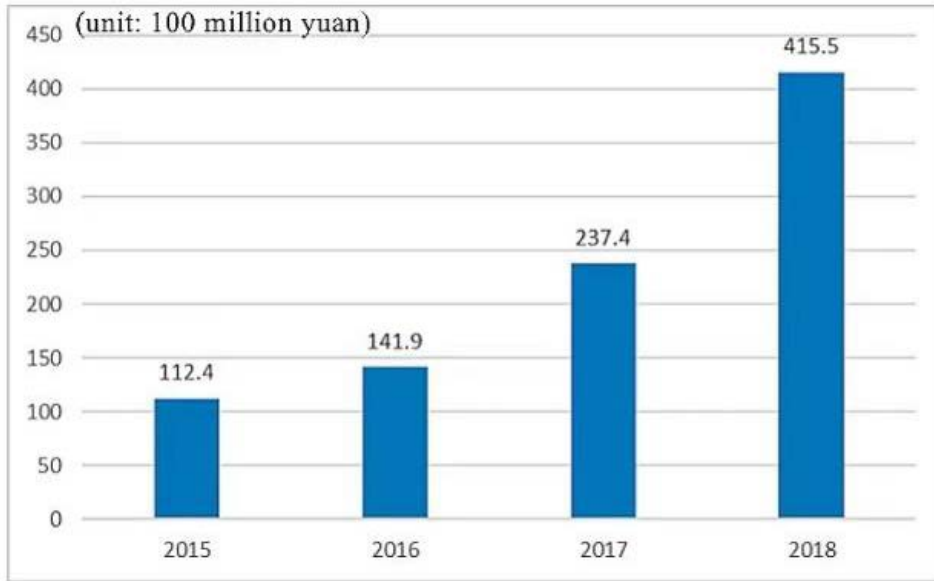


Figure 2. Statistics on the market scale of China's artificial intelligence industry from 2015 to 2018[12]

The continuous expansion of China's artificial intelligence industry from 11.24 billion yuan to 41.55 billion yuan from 2015 to 2018 reflects the rapid development of artificial intelligence. It also means the increasing demand for artificial intelligence, which contributes to the increased salaries of related jobs.

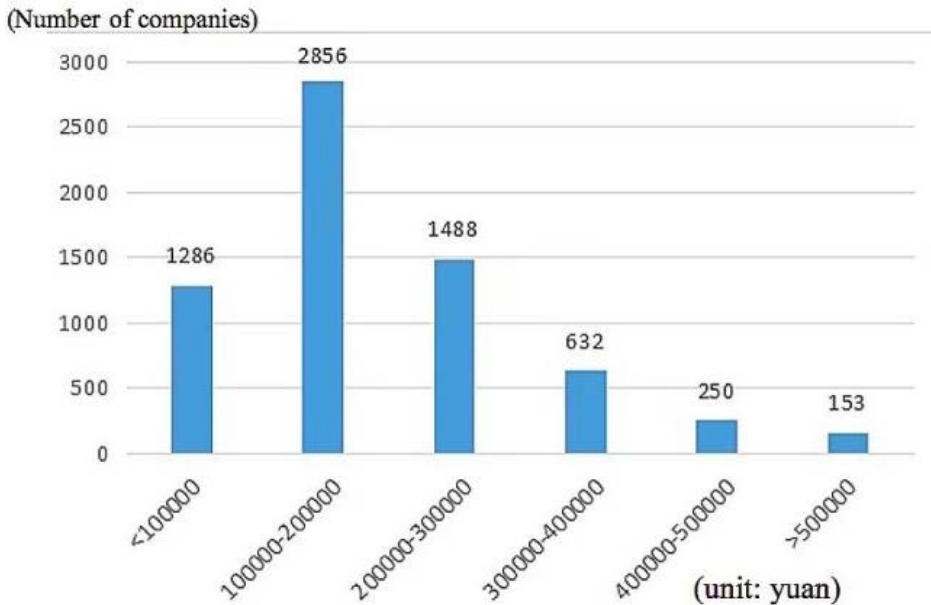


Figure 3. Salary distribution of artificial intelligence-related positions [13]

The annual salary is concentrated in the range of 100, 000 to 200, 000, and 200, 000 to 300, 000, which meets the demand of those who are in want of high salary. Therefore, the related positions become popular.

The widespread application of artificial intelligence has also driven the demand for research and development positions. Among them, the demand for AI chip research and development positions and robotics research and development positions has increased. Compared with robots, artificial intelligence chips are currently not widely used in my country. They are used in smartphones, advanced assisted driving functions (ADAS), and smart interactive life in daily life. The increase in demand is mainly dependent on national policy support. Its strategic position is also far greater than application innovation. Through artificial intelligence chips, China promotes transformation and

narrows the gap with the United States in this field. Under the call of the country, more and more companies in the field of artificial intelligence chips are driving R&D positions. Design and R&D, as the core competitiveness of companies, is the key to the sustainable survival and even growth of companies. Therefore, the demand for chip R&D talents is increasing.

The demand for robot research and development jobs has increased. The wave of machine substitutions has made robots widely used, driving the demand for robot research and development jobs to increase. Robot R&D positions include robot application engineer, robot mechanical engineer, robot electrical engineer, robot vision engineer, robot algorithm engineer, robot system integration application engineer, etc.

In terms of salary, due to the high demand, the salary of robot research and development positions is higher. The average monthly salary of robot R&D engineers is 15.3 thousand yuan, and the salary range is 4.5 thousand yuan to 50,000 yuan, of which 10,000 yuan to 15 thousand yuan accounted for the highest proportion. Wages have been on the rise since 2015, and have risen the fastest from 2018 to 2019. By 2021, it has reached 15,000 yuan per month [14].

### **2.3.2 The chip field attracts attention to driving employment**

Due to favorable national policies, companies have increased the demand for chip-related talents. By the first quarter of 2021, the demand for semiconductor talents will reach more than 236,000, and the salary of chip-related talents will increase accordingly. According to the 2019 Chip Talent Data Insight, in 2017, the corporate recruitment salary was 9,430 yuan per month, in 2018 it was 10,120 yuan per month, and in 2019, it was 10,420 yuan per month, which increased year by year to 10,000 yuan. Among job seekers with different academic qualifications, employers' demand for undergraduates is 32%, ranking second, while the number one college degree accounted for 39% because production jobs require more college degree job seekers. It can be seen that employers have a greater demand for undergraduates [13].

According to the Semiconductor Industry Salary Trend Report for the First Half of 2020, among R&D positions, IC design positions have the highest starting salary and highest salary. The minimum salary is 200,000 yuan per year and the highest is 800,000 yuan per year. As is paid for the most and the most prospective, the IC design positions have become a hot post. Different directions in IC design have different requirements for academic qualifications and work experience. IC design is divided into the digital direction and the analog direction, and the architecture design in the digital direction and the analog design in the analog direction require high academic qualifications and rich experience, as well as high salary. The analog layout of the analog direction is at a lower level of salary in the analog direction, and at the same time, the recruiting standard is lower. It is the most suitable for undergraduates in IC design positions and has become a popular position for college students. For undergraduates, the annual salary of 8 years after graduation can reach 650,000 yuan to 800,000 yuan. A small number of people can earn more than one million a year, and they need at least one of their skills and management capabilities to excel. The need to take the technical route makes a huge contribution to the company, and the need to take the management route can coordinate various departments, lead subordinates and cooperate with their bosses.

## **3. The impact of the digital economy on the employment choices of college students**

### **3.1 Employees in new fields and formats are becoming more numerous**

The 2021 Report on the Work of the Government emphasizes the need to "support and standardize the development of new employment forms, and accelerate the promotion of occupational injury protection projects." The government will concentrate on the emergence of new types of employment. The state's focus on new job forms stems from the fast advancement of information technology, which has fueled the growth of the sharing economy sector. New forms of employment have developed and flexible employment positions have increased. Shared services, new consumer business models, shared offices, shared manufacturing, and shared medical financing have increased in scale. The live

webcast creates a significant number of employment while also encouraging consumption and economic growth.

The growth of the sharing economy is driving the creation of new jobs. In China, the number of individuals engaging in the sharing economy is expected to reach 830 million by 2020. Among them, the number of service providers and platform companies is about 84 million and 6.31 million [15].

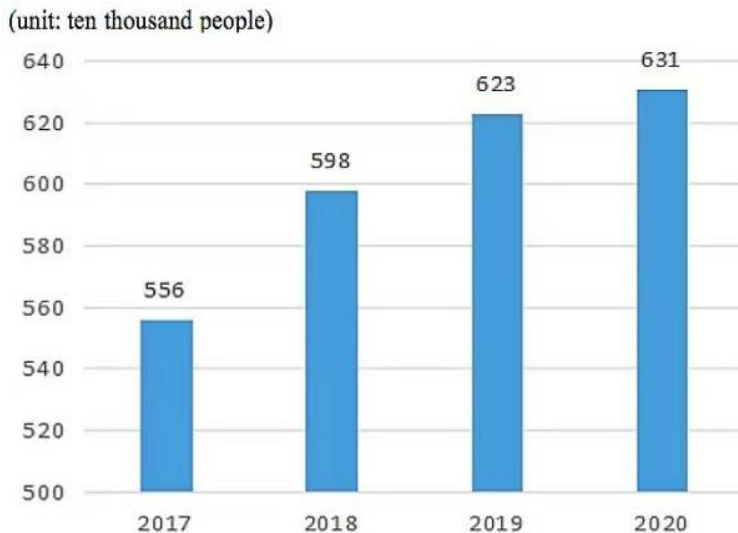


Figure 4. Number of employees in sharing economy platform companies in China [15]

The continuous increase of employees from 5560000 in 2017 to 6310000 in 2020 shows that the sharing economy platform offers a significant number of positions. According to the figure, the platform will offer more positions in the future. Therefore, the platform has become a meaningful way to offer jobs and will become more and more critical in the future.

The sharing economy promotes flexible employment. With various application software platforms, relevant personnel can directly create digital products or provide labor services through information exchange and dissemination. Baidu Wenku Knowledge Stores that directly generate revenue by creating digital products drive content creators, bloggers who live broadcast or shoot short videos on the Tik Tok platform for entertainment, viewing, and learning, and provide labor services through information exchange and dissemination, such as Meituan takeaway riders. Logistics services, Tik Tok e-commerce, and live streaming provide delivery services, and Zhihu's paid consulting services provide consulting services, etc. Its lower recruitment standards have attracted content creators, video shoots, live delivery, and delivery riders, making it the first choice of many college students for part-time jobs. When college students are employed, they mainly choose knowledge-intensive labor positions with higher recruit standards, such as creative planning, software design, digital management division, Internet of Things (IoT) installation and commissioning, drone pilots, e-sports players, etc.

What's more, the development of digital technology reduces the pressure of starting a business to some extent. Many college students have therefore chosen to start a business. Approximately 204,000 of the 2015 college students chose to start a business. Mobile Internet has become the first choice for post-90s entrepreneurs in entrepreneurship, with social networking, shopping, and video as the main entrepreneurial directions [16].

### 3.2 Popularity of the information technology industry

Salary is a critical factor in the popularity of an industry, and high salaries often mean that the industry is widespread. The market has a significant need for information technology-related abilities, and the salary advantage is clear, thanks to the digital industrialization and industrial digitization brought about by the expansion of the digital economy.

Computer, electronic information, instrument and meter, automation, e-commerce, management science and engineering, and safety science and engineering ranked first in monthly income in 2020,



respectively 6,800-yuan, 6,091-yuan, 5,984-yuan, 5,917-yuan, 5,829-yuan, 5,829-yuan, 5,701-yuan, 5,679 yuan. All of these industries are related to information technology. In the middle of graduation, the monthly income of information technology-related majors is also the highest. After three years of graduation from computer, electronic information, management science and engineering, and automation, the average monthly income is 10,915-yuan, 9428-yuan, 9334 yuan, and 9290 yuan. The monthly growth rate is high, 80%, 72%, 95%, 77%, which shows its good development prospects.

According to the 2021 China undergraduate employment report, information technology-related majors accounted for the majority of the top 18 majors in terms of monthly income for the class of undergraduates six months after graduation. The top five are information security, software engineering, network engineering, and the Internet of Things engineering. Therefore, comparing various industries, the income of the information technology industry is also ranked high.

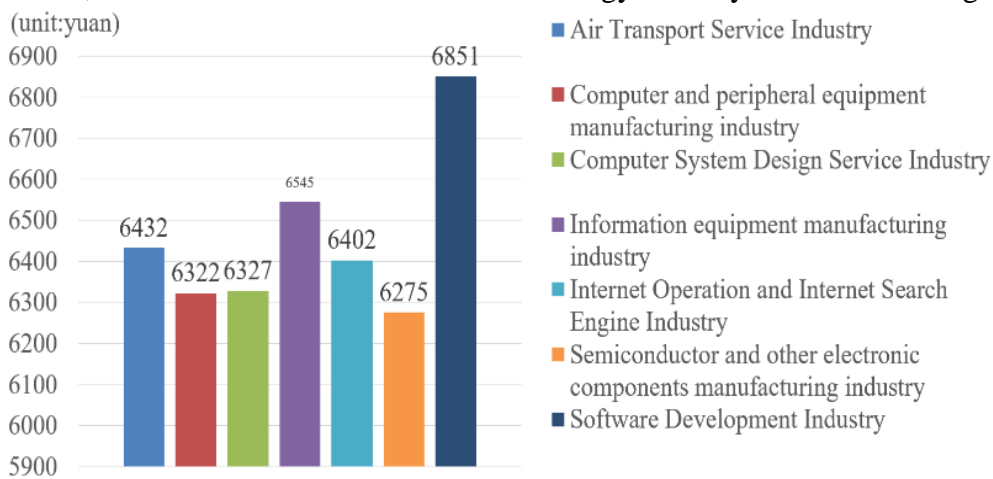


Figure 5. The top seven industries with the highest monthly income for the class of 2020 six months after graduation [16]

The top seven industries with the highest monthly income for the class of 2020 undergraduates half a year after graduation shows that almost all of the top seven industries with the highest monthly income of the 2020 undergraduates are related to information technology. This is because the digital economy has facilitated the widespread use of information technology in various industries. The increase in demand for talents in information technology-related industries has resulted in higher salaries and better development prospects in the information technology industry, which has become an industry that is popular with college students for employment.

### 3.3 More digital talents are employed in First-tier and New First-tier Cities

In terms of work kinds, 74 percent of digital talents are employed in First-tier and New First-tier Cities, according to figures from the University Graduate Employment Report [17]. The three major regional economies of the Pan-Pearl River Delta, Pan-Yangtze River Delta, and Pan-Bohai Bay are the primary work sites for digital skills in terms of employment regions.

Undergraduate digital talents are generally attracted by higher salaries and greater demand and choose first-tier cities and New first-tier Cities for employment. According to the High-end Talents Job Search and Employment Big Data Report for the Third Quarter of 2021, first-tier cities Shanghai, Beijing, Shenzhen, and Guangzhou rank among the top four in the proportion of new jobs. The average annual salary for mid-to-high-end talents is 268,300 yuan, and the lowest is 226,200 Yuan, ranked in the top four. Among the New First-tier Cities, Chongqing, Suzhou, Chengdu, Hangzhou, Wuhan, Nanjing, Tianjin, Ningbo, Qingdao, and Changsha account for lower proportions of new posts in the first-tier cities. The average annual salary of mid-to-high-end talents is recruited. They are still high-paying jobs between 160,000 yuan and 220,000 yuan, slightly lower than first-tier cities. The proportion of digital talents in first-tier cities is between 13% and 5%, and the proportion of digital talents in New First-tier" Cities is between 1% and 5%. First-tier cities are higher than those in New First-tier Cities. In terms of salary, the average annual salary of digital talents in first-tier

cities is 290,000 to 190,000 yuan, and New First-tier cities' annual salary is 210,000 to 140,000 yuan. The average annual salary of digital talents in most first-tier cities is higher than that of New First-tier Cities. In addition, first-tier cities and New First-tier Cities have higher annual salaries [18].

The difference in demand for digital talents and salaries in New First-tier Cities, first-tier cities, and other regions reflects the imbalance in regional development in China, especially the imbalance in the development of the digital economy. Small and medium-sized cities have not established an excellent digital industry ecology. Few companies can provide digital-related jobs, and digital-related high-paying jobs cannot be compared with first-tier and New First-tier Cities. As a result, digital talents are reluctant to work in small and medium-sized cities and are willing to work in their hometowns. Undergraduates employed in small and medium-sized cities cannot find suitable positions. Compared with first-tier cities and New First-tier Cities, small and medium-sized cities generally have a weaker digital foundation, with information systems covering only a small number of governments. There is also a lack of digital technology, talents, and data in many areas, less investment from the government and society, insufficient awareness and capabilities for digitalization of government staff, the public, and enterprises. Today, the government is actively building and promoting the digital transformation of small and medium-sized cities.

## **4. Suggestions**

### **4.1 Matching the curriculum of colleges and universities with market demand**

Adjust the corresponding curriculum settings of colleges and universities, pay attention to the integration of digital technology and professional skills, and cultivate to meet the market's demand for digital talents. Therefore, it is necessary to integrate professional courses in information technology into professional training programs. In terms of faculty, increase the participation of teachers from information technology-related colleges in teaching information technology professional courses. The professional teachers learn the application of information technology in the major, teach in professional courses, and enhance the communication and exchanges between teachers of information technology-related colleges and teachers of the college.

### **4.2. Introduce foreign talents**

Encourage overseas outstanding digital talents to return to China, pay attention to using remuneration to enhance the attractiveness of returning to the country for development, and enhance the enthusiasm of talents for high-quality output. Actively employ foreign experts through various means. The incentive mechanism and the output evaluation mechanism should be coordinated. Instead of direct financial rewards, an effective evaluation mechanism should be set up to encourage overseas talents to produce more high-quality output. Multi-faceted assessment of talent output lets market-oriented means play a role, and employers are guided by market demand and are assessed according to the actual use of talent output in the market. Reward forms should be diversified, including economic rewards, children's enrollment, children's enrollment, and other aspects of food, clothing, housing, travel, etc.

### **4.3 Strengthen the pre-job training of employers**

Encourage enterprises to lower their employment standards, improve the pre-job training mechanism, and allow college students to master relevant skills quickly. The training methods are diversified. Senior unit employees can guide recruits, or they can participate in regular or irregular lectures given by lecturers hired by the unit and receive comprehensive training from the training organization. Governments should encourage companies to hire experts to train new employees on the job. After the training, appropriate professional assessment for new employees and rewards for excellent employees can be carried out.

## 5. Conclusion

By reading the relevant scholars about the development of the digital economy in recent years and its impact on employment and employment situation for college students of literature, and analyzing the relevant data, this study obtained a massive inspiration. In the research process, this paper finds that digital technology has extensively promoted the development of China's economy, especially having a significant impact on the employment of college students. According to research, with the development of the digital economy, digital technology has replaced certain occupations and created new ones. At the same time, with the development of the digital economy, more and more college students prefer to work in digital technology-related enterprises in first-tier cities. Based on the above research results, this study puts forward some suggestions for universities, governments, and enterprises to deal with the impact of the digital economy on employment. Firstly, Colleges and universities should be adjusted curricula to match the college students' employment skills learned. Secondly, the government should bring in more foreign experts. Thirdly, enterprises should strengthen pre-job training for new employees. This study also has specific limitations. From the point of view of data analysis, the selected data coverage is not comprehensive enough. Only listed companies are selected for data analysis of financial statements, while non-listed companies need further research. This study has particular reference value for studying the employment trend of college students and the development advantages of the digital economy industry.

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