

# Research on the Challenge and Response Strategy of Labor Employment in the Era of Artificial Intelligence

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## ABSTRACT

The rapid development of information technology has led the world into the era of artificial intelligence. This technological change has a profound impact on the social and economic structure, not only changing people's lifestyle, but also a significant impact on the labor and employment market. The extensive application of artificial intelligence technology has promoted the development of the industry, providing new opportunities for Chinese workers, but at the same time, it has also led to the intensification of large -scale unemployment and structural contradictions in the labor market and the expansion of income gap. In order to effectively respond to these challenges, it is recommended that the state improve the social security system, promote employment and transfer training of unemployed personnel, adjust and optimize the industrial structure, cultivate new growth points of artificial intelligence employment, and strengthen the education and training of artificial intelligence technology, improve the workers Professional skills and literacy to achieve the goal of high -quality employment.

## KEYWORDS

Artificial Intelligence; Labor Employment; Opportunities and Challenges; Response Strategies

## 1. INTRODUCTION

In recent years, artificial intelligence (AI) technology has been widely used in many fields, and it has had a profound impact on social and economic development, especially in labor and employment. The use of AI technology optimizes working conditions and improves labor productivity, while AI can replace some low-skilled jobs. In the face of this situation, we must deeply analyze the pros and cons of AI technology, and explore how to more effectively use its advantages, to meet the challenges of the intelligent revolution [1].

## 2. THE POSITIVE IMPACT OF AI ON WORKERS

### 2.1. Strengthen labor protection and optimize working conditions

According to relevant research, the annual economic loss caused by work safety problems is huge. In addition, many employees suffer or even lose their lives due to accidents or long-term occupational diseases at work. In the face of this severe situation, the extensive application of artificial intelligence technology has become an effective way to reduce occupational risks and reduce the probability of safety accidents. In related industries, artificial intelligence automation technology can be used to replace heavy and dangerous manual labor, such as heavy object excavation and handling, and high-altitude work, so as to reduce the labor intensity of workers, reduce the occurrence of industrial

accidents, and reduce the risk of disability and disease. In high-risk operations that must be completed by people, artificial intelligence can conduct safety management and risk warning through data analysis and simulation technology, prompt workers to follow safety regulations in real time, and reduce the possibility of accidents. In addition, according to the occupational characteristics and individual needs [2]. For example, considering the personal habits and physical conditions of workers, the intelligent system can automatically adjust the temperature, light and other factors of the working environment without affecting the normal operations, so as to create a more comfortable working environment for workers.

## **2.2. Improve labor productivity and reduce production costs**

Around the world, many workers are under pressure to work too long hours, with many working more than 48 hours a week. In China, the "996" working system in some industries is becoming increasingly prominent. This long-term working mode not only leads to workers unable to get full rest, but also reduces work efficiency, forming a vicious circle. At the same time, the wide application of artificial intelligence promoted the automation of all walks of life, AI machine can replace many repeatability, low technical content, such as assembly, packaging and simple data entry, etc., to reduce the dependence on human resources, greatly reduce the cost of production, and significantly improve the production efficiency and quality. In addition, artificial intelligence technology can rely on big data analysis to continuously optimize the production plan, predict the market demand in real time, assist managers to make more accurate and effective decisions, avoid the waste of resources caused by excessive production, and thus improve the production efficiency [3]. At the same time, AI can simplify workflow, rationally allocate resources, and provide more accurate and efficient work solutions to help workers better complete tasks. Through image recognition technology, artificial intelligence can also monitor product quality and reduce the rate of defective products and rework rate. In addition to playing a huge role in production, artificial intelligence technology will also shine in many fields, such as medical care and elderly care, reducing service costs and helping China better cope with the challenge of an aging population.

## **2.3. Create new forms of employment and bring about opportunities for innovation and entrepreneurship**

With the development of AI technology, many new jobs related to it have emerged in all walks of life, which provides a new career direction for workers and brings huge development opportunities for enterprises. AI leads the progress of science and technology, many enterprises begin to pay attention to the research and development of intelligent industry, invest more funds and add a large number of related positions. The employment gap around emerging industries is becoming bigger and bigger, and the social division of labor is becoming more and more detailed, providing more space for the development of part-time workers and free-lance workers. The new industrial ecology spawned by AI technology will create a large number of jobs and help workers with relevant technical capabilities to find jobs smoothly [4]. In addition, AI technology has also opened up a new window for entrepreneurs. New products and services such as smart home system and smart medical equipment developed based on AI technology are welcomed by the market, and are the entrepreneurial direction for exploration in the next few years. For example, intelligent surgical robots can assist doctors to perform minimally invasive surgery for patients more accurately, and the application prospects are very optimistic. And the progress of artificial intelligence technology, its penetration of the industrial chain is everywhere, from algorithm development to data acquisition, from hardware manufacturing to system integration, this process not only created new employment and business opportunities, such as artificial intelligence chip research and development and intelligent sensor production and other fields, also indicates the broad prospects for development.

### **3. THE CHALLENGE OF ARTIFICIAL INTELLIGENCE TECHNOLOGY TO LABOR AND EMPLOYMENT**

#### **3.1. AI causes mass unemployment**

From the perspective of the evolution of human science and technology, we find that every technological leap progress has given birth to an industrial innovation. At present, with the continuous progress of artificial intelligence technology, those labor-intensive jobs with highly repetitive and low-tech content are facing the risk of being replaced by robots and intelligent systems. Experts in the field predict that by 2030, about 14 percent of the global jobs are at risk of being replaced, and another 32 percent of the jobs will change dramatically. The gradual intervention of intelligent robots will eliminate a large number of existing jobs, resulting in a sharp drop in corporate demand for labor, which will not only make the job market severe, but also lead to a rise in unemployment. Currently, AI has shown its strong alternative capabilities in many fields. For example, many companies have introduced intelligent robots to build automated production lines, significantly reducing the number of basic workers and requiring only a few regulators to ensure the smooth operation of the system [5]. At the same time, autonomous driving technology is developing rapidly, with driverless taxis in first-tier cities such as Beijing, Tianjin and Shanghai, which is expected to replace a large number of taxi drivers in the next few years.

#### **3.2. The aggravation of structural contradictions in the labor market**

With the widespread application of artificial intelligence technology, the middle and low-end positions are facing the risk of being replaced by machines, which exacerbates the structural contradictions in the labor market, and may lead to the coexistence of "recruitment difficulties" and "employment difficulties". The change in skill requirements means that automation will change for simple, repetitive jobs, while the demand for high-level skills and creative thinking will continue to rise. This change can lead to a mismatch in skill needs between businesses and job seekers, and some may face fewer job opportunities. In particular, employees working in jobs that may be impacted by AI may encounter obstacles when moving to jobs adapted to the needs of new technology. Relearning unfamiliar industries and new skills requires a lot of time and resources, which is more difficult for low-end workers with generally weak educational backgrounds, mediocre foundations, and lack of resource support. Economists worry that this could lead to job polarization in the labor market, with increased demand for highly skilled workers and increased pay, while fewer job opportunities and deteriorating benefits for low-skilled workers, which could further intensify social class consolidation.

#### **3.3. The widening of the income gap between workers**

Advances in AI technology have triggered significant structural adjustments in the labor market, widening the wage differences among workers at different skill levels. Highly skilled people are able to use AI to create additional economic value, while low-skilled workers risk being replaced by machines, which could lead to reduce their incomes. With the widespread use of AI technology, low-end workers working in jobs such as production line assembly and customer service are facing the immediate threat of unemployment. Once they lose their job, it becomes extremely difficult to find a new job at the same salary level. This is because jobs in AI-related fields require highly specialized knowledge and skills, making those who master these technologies have strong competitiveness in the market and thus receive higher salaries. Instead, those who lack these techniques may have to accept lower salaries. Foreign scholars predict that with the continuous progress of information technology and the automation of production processes, the broad members of society, including workers and low-level managers, may lose their jobs. They fear that the world could split into a rich high-tech elite and a poor group of the unemployed, causing extreme polarization between rich and poor.

## **4. COPING STRATEGIES FOR LABOR AND EMPLOYMENT IN THE ERA OF ARTIFICIAL INTELLIGENCE**

### **4.1. Improve the security system and promote the transfer of unemployed**

Today, with the rapid development of artificial intelligence, many workers are facing the increasing threat of unemployment. In order to help the unemployed switch careers smoothly, the relevant departments must increase their focus on emerging vocational skills training and provide a variety of learning opportunities so that the unemployed can master the skills to meet the economic needs of the new era. At the same time, services such as career counseling, employment guidance and employment recommendation will be strengthened to support the successful transition of the unemployed to new industries and positions. Establish and continuously update the employment information platform, and centrally release the recruitment information of local enterprises, so that the unemployed can keep up with the pace of the job market and carry out targeted career planning. In addition, the minimum wage standard and income security mechanism should be formulated to ensure the income level of workers and avoid income reduction during the skills transition. At the same time, we will improve the social security system, provide unemployment insurance, medical insurance and other benefits, provide basic living security for the unemployed with financial difficulties, and reduce their economic burden during the career transition period. Encourage and support entrepreneurial behavior, and provide policy and resource assistance, not only to promote the independent employment of the unemployed, but also to promote the development of the local economy. These measures can improve the efficiency of career conversion of the unemployed, reduce the impact of AI on the job market, and promote the stability and sustainable growth of the social economy.

### **4.2. Adjust the industrial structure and foster the growth points of AI employment**

For traditional industries, intelligent transformation is often a relatively slow process. To enable these industries to successfully transform, we need to overcome the challenges in the early stages of AI. Relevant departments should increase their support for and investment in the AI industry, encourage local enterprises to enhance their R & d and innovation capabilities, and cultivate the growth points of AI technology and application. This will not only create more jobs, but also attract and cultivate high-quality related talents. At the same time, we should also provide support and incentives for innovation and entrepreneurship, providing resources for willing entrepreneurs to help them explore and develop new technologies, new products and new businesses in new AI fields. Artificial intelligence technology has a wide range of application potential, and we should promote its application in traditional industries and explore new development opportunities. We will further promote the deep integration of artificial intelligence with education, medical care, transportation, agriculture and other fields, so as to create more new jobs and foster the growth points of information-based employment. Through these efforts, we can build an AI industry chain with Chinese characteristics, complete the transformation of the labor market, and promote the sustainable development of the economic industry.

### **4.3. Strengthen AI technology education to improve the professional quality of workers**

To deepen and persistently promote the development of AI, the high-quality talent team is the key. To this end, relevant departments must increase the investment in AI education and constantly update the teaching content and methods. Students need to master key skills such as data analysis and machine operation to meet the demand for talents in the era of artificial intelligence. At the same time, schools should be encouraged to establish cooperative relations with enterprises and research institutions, and build an AI education system integrating enterprises, universities and research institutes, so that students can contact real application scenarios, improve their practice and

innovation ability, so as to enhance their competitiveness in the job market. In addition, the construction and operation of vocational training institutions should be strengthened, and systematic training courses should be established to improve the training mode of applied talents, and ensure that the training content matches the market demand. We also need to advocate lifelong learning, popularize the correct cognition of artificial intelligence technology, encourage practitioners to continue to learn, update knowledge, and constantly improve themselves to meet the needs of the development of the industry.

## 5. CONCLUSION

In the current era of artificial intelligence, many workers are facing challenges such as unemployment and reduced income. In order to effectively avoid the risk of structural unemployment in the process of industrial technology upgrading and maintain the stability of the employment environment, relevant departments should improve the social security system, strengthen artificial intelligence technology training, and assist the unemployed to better cope with the impact of industry reform, and achieve smooth job transfer. At the same time, workers should also uphold the concept of lifelong learning, make full use of existing resources, keep up with the development trend of artificial intelligence, and improve their personal strength, so as to obtain better career development opportunities.

## 6. ACKNOWLEDGEMENTS

1. Guangzhou Nanyang Polytechnic College of Higher Education Teaching Reform Project "Training path of Higher Vocational Students under the perspective of new Liberal Arts- -take Guangzhou Nanyang Polytechnic Vocational College as an example"(NY-2022CQ-JG002);
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