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### ARTICLE

# EMPLOYEE ANXIETY AND COPING STRATEGIES IN THE CONTEXT OF AI APPLICATION

Xu Liu

Futian District Talent Affairs Bureau, Shenzhen 518017, China  
Corresponding Author E-mail: 13691809026@163.com

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### ARTICLE DETAILS

### ABSTRACT

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With the rapid development of society and the progress of the times, Artificial Intelligence (AI) has become very popular in life. In recent years, with the rapid development of speech recognition, driverless driving and machine translation, they have become an important driving force for the transformation and upgrading of China's traditional economy. However, their development has also had a significant impact on the labor market. This trend has caused fears of "Robots Replace Human Workers" and unemployment caused by technology. In order to deeply analyze this problem, this study analyzes the current anxiety status of corporate employees in the context of current AI applications, and proposes corresponding solutions, thereby laying a solid foundation for the reasonable combination of AI applications and the labor market.

#### KEYWORDS

AI application, Employee anxiety, Coping strategies

## 1. INTRODUCTION

As AI technology continues to develop, its applications in various fields are becoming more and more extensive. According to the "2020 Chinese Artificial Intelligence Application Development Report" released by the State Information Center, as of the end of 2020, the fields of our country's artificial intelligence applications have covered many fields such as finance, medical care, transportation, security, and education. However, the introduction of artificial intelligence has also brought a series of challenges to employees. McKinsey & Company, a well-known global management consulting firm, has released the latest report "The economic potential of generative AI: the next productivity frontier" pointing out that with the rise of AI, it is expected that between 2030 and 2060, 50% of today's work positions may be replaced, and all walks of life will be affected [1].

However, the widespread use of artificial intelligence has also brought some problems to employees in the workplace. The most prominent problem is causing employee anxiety. This anxiety can be traced back to the first appearance of contemporary computers, when many people worried that computers might threaten human work positions and the meaning of existence [2]. Today, this anxiety is the worry and fear employees feel in the context of AI applications. Scholars such as Wang [3] define artificial intelligence anxiety as an overall emotional anxiety or fear that inhibits the interaction between individuals and artificial intelligence. For example, some employees feel that there is a high risk that their jobs may be replaced by AI technology, resulting in fear and uneasiness, while other employees may believe that AI technology will affect their career development, which results in their anxiety. These

anxieties will have a negative impact on employees' work status.

However, in daily work, people generally pay insufficient attention to employees' AI anxiety [4]. The development and application of artificial intelligence has become an irreversible trend. However, the accompanying issue of employee anxiety cannot be ignored. In this regard, the article aims to explore the challenges and strategies faced by the development of artificial intelligence, with the aim of promoting the advantages of artificial intelligence technology in future development, and collaborating to create value for enterprises and benefit humanity while alleviating employee anxiety [3].

## 2. CURRENT STATUS AND CAUSES OF EMPLOYEE ANXIETY IN THE CONTEXT OF AI APPLICATION

### 2.1 The Current Status of Employee Anxiety in the Context of AI Application

Employee anxiety caused by AI was first raised when modern computers were just invented. At that time, many people were afraid that computers would threaten human survival. AI anxiety is an emotional expression among employees regarding the potential negative impacts of artificial intelligence. Artificial intelligence anxiety refers to an emotional anxiety or fear that humans have in work and life with the development of artificial intelligence technology.

In 2016, Google AI "AlphaGo" defeated the famous Go player Lee Sedol, indicating that artificial intelligence surpassed humans in computing, learning and thinking capabilities. This made people worried about

the future of human society. At the same time, the emergence of artificial intelligence application scenarios such as “unmanned banks” and “unmanned supermarkets” also caused workers to worry about unemployment caused by technology and their own future destiny. With the development of artificial intelligence technology, employees have developed an indelible psychological anxiety [4].

### **1.1.1 Not Conducive to the Maintenance and Communication of Interpersonal Relationships**

Artificial intelligence and other intelligent application software can replace some human tasks, reduce the workload of workers, and bring great convenience to workers. However, with the development of artificial intelligence, most employees have become more dependent on artificial intelligence. Therefore, they lack communication in terms of emotions and work details, which has a negative impact on the company’s cohesion and networking. In severe cases, it will slow down the thinking of the relevant employees.

### **1.1.2 Competitive Conflict between Enterprise Workers and Artificial Intelligence**

Artificial intelligence robots have many advantages such as advanced, scientific, and accurate. They can well replace pure human labor and are of great significance to improving work efficiency and work quality. However, because of the excellent performance of artificial intelligence, it is also constantly replacing human work, leaving fewer and fewer people for processing tasks such as data analysis and statistics. This has caused competition and conflict between corporate employees and artificial intelligence.

### **1.1.3 Workers’ Concerns about Unemployment Caused by Technology**

The relationship between technological progress and unemployment is a long-standing proposition that has lasted for hundreds of years. In the first industrial revolution, large-scale mechanical production caused a surge in the number of unemployed people, and workers’ lives became more difficult. In the 1920s and 1930s, the increase in unemployment was due to the introduction of new machinery. Clo-wer introduced the concept of “unemployment caused by technology” in the article, pointing out that technological progress has a greater impact on employment than innovation. With the rise of the new technological revolution in the mid-20th century, especially the rapid development of artificial intelligence in recent years, the issue of “Robots Replace Human Workers” has once again aroused the attention and concern of all sectors of society [5]. Artificial intelligence can improve work efficiency and replace many jobs, thus causing a large number of unemployment. Meanwhile, some research and historical data show that the productivity gains generated by scientific and technological progress can both replace certain jobs and create new ones, thus not causing high unemployment. Therefore, governments and enterprises in various countries have focused more on the development of artificial intelligence technology and its application and popularization in various work scenarios, while ignoring a series of social issues including the unemployment and resettlement of unemployed people that it may cause. However, the development direction of artificial intelligence is to completely exclude labor force. That is to say, with the advancement of science and technology, the organic structure of capital will reach a peak, workers will have fewer and fewer opportunities to re-employ, and unemployment will become more and more serious.

## **1.2 Causes of Employee Anxiety in the Context of AI Applications**

### **1.2.1 The Disruptive Impact of Advances in Artificial Intelligence Technology on Employment**

The employment problem caused by the smart technology revolution is different from any before. The first industrial revolution led to a large number of farmers entering factories, while the second industrial revolution added many employment opportunities in the service sector but traditional factory workers lost their jobs. Therefore, many scholars have proposed that the employment pressure caused by the technological revolution can be compensated by the employment opportunities it provides, and employment opportunities can be obtained through training, re-education, etc., which are just changes in

work methods and content. However, with the development of artificial intelligence, its impact on employment has also emerged with some new characteristics that are different from the past.

#### **(1) High job replacement rate**

Compared with previous technological developments, the effect of artificial intelligence in replacing employment is more significant. According to a World Bank study, in 2013, 57% of jobs in more than 50 countries were covered by automation technology. Dauth and other scholars studied the connection between German labor market data and IFR robot shipments. The results showed that for every additional industrial robot in production, two jobs will be lost. Frey and Osborne analyzed professional data in the United States and found that 47% of jobs were at risk of being automatically replaced.

#### **(2) Job skill requirements are becoming polarized**

The computer revolution in the 20th century and the rapid development of artificial intelligence technology in the 21st century have had a huge impact on employment. This is that there are fewer and fewer jobs with middle-income and middle-skill requirements. The new mechanical revolution has led to an increase in the number of mental work (knowledge-based jobs) for high-income people and manual labor positions for low-income people. The demand for workers’ skills in each position has become polarized. Positions with higher professional skills but highly procedural, such as accountant, translator and lawyer are also within the scope of jobs replaced by artificial intelligence. Polarization will transform the structure of low, medium, and high income groups from the original pyramid or spindle type to a dumbbell type. The flow of low-income groups to high-income groups is hindered, and the social class is further solidified, posing risks to the harmonious development of society.

#### **(3) Promotion channels within the organization are blocked**

With the development of artificial intelligence, vertical labor based on differences in employee abilities will be replaced by horizontal labor based on similar skill levels, and the organizational structure of enterprises will also undergo disruptive changes. For example, in the current organizational structure, accounting positions are generally divided into three levels: junior, intermediate, and senior. Employees gradually increase their income according to their abilities and work performance, so that an efficient ladder promotion incentive mechanism can be established. However, with the development of artificial intelligence, it is very likely that it will replace a large number of junior and mid-level positions in accounting, translation, journalists and other occupations, leaving only senior positions. In this way, in enterprises, employees will encounter the problem that there are no positions for promotion and the upward mobility channels of employees within the organization are cut off, so the lateral mobility of employees among organizations becomes more frequent. In addition, if workers do not accumulate experience step by step on the job, they must pay greater training costs if they want to transit from low-level technicians to high-level technicians. With the development of artificial intelligence technology, changes in job positions and skill structures will inevitably have a great impact on the employment of the labor force, and will also cause a great psychological impact on workers.

### **1.2.2 Work Value Ethics are Seriously Challenged**

Marx pointed out that the biggest difference between humans and other animals is that humans use their own labor to transform and create the resources and conditions they need for their own survival. Labor is the primary need for human survival and development. Once people lose their own labor, they will lose their own way of survival and their own value. Throughout human history, most people work hard for their own survival. Working is an honor and not working is a shame. Labor is a kind of human gene, which is deeply engraved in people’s thinking and behavior. However, with the development of artificial intelligence technology, it is possible for intelligent machines to become a labor force similar to humans, while humans are excluded from the work field. As an independent consumer, the subjectivity of human labor gradually disappears and it is difficult for human value to be reflected in labor. After they lose their jobs, some people with self-pursuit and strong motivation may actively seek the meaning of work and begin to work

in innovative ways. However, there are also a large number of people who have nothing to do due to unemployment and are gradually being shunned by society, losing their sense of social existence and value.

### 1.2.3 Human Psychological Needs will be Difficult to Meet

In 1943, Maslow divided human needs into five levels: physiological needs, safety needs, social needs, esteem needs, and self-actualization needs. At work, people receive the most basic economic resources and meet their most basic needs for survival and safety. At the same time, people also join work organizations, form work communities, build interpersonal relationships, and satisfy their emotional and interpersonal needs, thus realizing their own value at work. It can be seen from this point that labor is not just a kind of existence, but a tool for the most basic needs. Therefore, when humans lose their jobs, the development of artificial intelligence will threaten human survival needs; if AI robots completely surpass humans, then humans will lose their sense of control over AI, which will make people lose their minimum sense of security. In addition, the positions created by artificial intelligence machines replacing jobs may be more about providing maintenance and services for artificial intelligence devices. The connection between people at work is weakened, and the relationships and emotional needs between people are difficult to be satisfied. Meanwhile, the relationship between people becomes indifferent and more mechanical. Apart from this, when faced with the threat of unemployment, the satisfaction of people's self-esteem and self-realization needs has become the exclusive preserve of a few people. With the continuous development and popularization of artificial intelligence, it poses a great threat to human mental health.

## 3. POLICY RECOMMENDATIONS TO DEAL WITH ANXIETY ABOUT ARTIFICIAL INTELLIGENCE

The development of artificial intelligence has become an important driving force for competition and social and economic changes in various countries, and is the general trend of technological, economic and social development. At the same time, with the development of artificial intelligence technology, employees have developed psychological anxiety and worries about employment issues. In order to better promote the physical and mental health of employees and promote the harmonious development of society, a systematic social psychological early warning and intervention mechanism is needed.

### 3.1 Establish an Artificial Intelligence Network Public Opinion Monitoring System and Provide Timely Psychological Intervention to Employees

According to what Robert calls the "science and technology phobia curve", the public's view of artificial intelligence can be roughly divided into three periods. In the beginning, the public is curious about, and even interested in artificial intelligence. However, when artificial intelligence is used more and more, people begin to find that it poses a threat to their work and life, resulting in some negative emotions including fear, rejection and distrust, which is the so-called "panic rising period". It is not until employees adapt to the changes in artificial intelligence after a period of learning that their anxiety and worries will gradually dissipate.

At present, the mentality of employees in our country has gradually transformed from curiosity about AI applications to anxiety. Therefore, relevant departments can use big data analysis technology to monitor negative information about "artificial intelligence" and understand employees' emotional responses and anxiety degree towards artificial intelligence and provide effective psychological counseling and intervention. On the one hand, the government uses effective information dissemination technologies and methods to release relevant information in a timely and effective manner through high-credibility dissemination channels, and excludes untrue sources of information to curb society's excessive fantasies and groundless speculations about technological development of artificial intelligence. This can prevent social psychological panic caused by the rapid spread of rumors, thereby helping people establish a rational understanding of artificial intelligence and guide society to have a positive attitude towards artificial intelligence. Meanwhile, all sectors of society are mobilized to hire experts, scholars, practitioners, and volunteers in the fields of artificial intelligence, psychology, and other fields to provide psychological counseling to the public through hotlines, online consultations, community interactions, and other forms to timely

alleviate public psychological anxiety and worry.

### 3.2 The Government Should Set up a Special Fund for the Popularization and Publicity of Artificial Intelligence Technology

The public concerns about artificial intelligence are largely due to employees' insufficient understanding of artificial intelligence. After seeing some negative news about artificial intelligence, they will quickly amplify the negative effects of artificial intelligence. At the same time, in order to attract attention and cater to the curiosity of employees, some media accelerate the spread of negative information and cause collective psychological anxiety among the public. Therefore, the government can establish a special fund for artificial intelligence education and development, establish artificial intelligence science popularization websites in large, medium and small enterprises, and regularly hold artificial intelligence exhibitions and publicity activities to provide free disclosure to employees. These measures will enable employees to personally experience the convenience and friendliness of artificial intelligence technology, enhance their understanding of artificial intelligence, improve their scientific and cultural quality, adjust their mentality, and proactively respond to changes in work and life caused by the development of artificial intelligence, thus reducing the mental stress caused by lack of understanding. In addition, the government can also use online education platforms to pass on relevant knowledge and development trends of artificial intelligence to society through new media such as MOOCs, live courses, and video Apps, and improve society's understanding of artificial intelligence through interaction with the public. The degree of attention and participation enables people to have a correct understanding and value judgment of artificial intelligence, so that they can view and actively accept the development of artificial intelligence scientifically and rationally.

### 3.3 Draft and Issue Laws Related to Artificial Intelligence as Soon as Possible to Effectively Safeguard the Rights and Interests of Employees

With the rapid development of artificial intelligence technology, people's moral ethics, values, economic operating rules, legal norms, etc. have all been greatly impacted. For example, in 2016, Google's self-driving car rear-ended a bus due to a computer failure. This incident makes us reflect on whether artificial intelligence has moral obligations and how to protect people's lives. It also gives us some negative views on the development of artificial intelligence. Japan is formulating the "Guidelines on Safety Issues for Next-Generation Robots (Draft)" to ensure personal safety during the use of robots. To prevent people from using robots to make improper profits, South Korea has formulated a Robot Ethics Charter. Therefore, our country should formulate and improve laws and regulations on artificial intelligence as soon as possible, regulate the application of artificial intelligence, provide standards and foundations for solving ethical and legal issues of artificial intelligence, provide necessary legal support for promoting the development of artificial intelligence and the physical and mental health of the people, and promote the coordinated development of artificial intelligence to society.

### 3.4 Establish and Improve the Social Security System to Maintain the People's basic Living Standards

With the rapid development and popularization of artificial intelligence technology, it has to some extent led to an increase in the number of unemployed people, and also accelerated the intensification of the wealth gap, which has had a huge impact on the employment and life of low-income and lower skill groups. To this end, our country should improve the unemployment security system, provide life security for involuntary unemployed individuals within the prescribed time frame, and focus on strengthening skill and vocational training for unemployed individuals to promote their reemployment. Secondly, relevant departments should urgently improve relevant laws and regulations, protect the labor rights of a large number of flexible employment groups, and reduce the adverse effects of artificial intelligence on their physical and mental health. At the same time, our country should also provide basic income security for residents, ensuring that they can still receive the most basic necessities of life after long-term unemployment, and ensuring their minimum living standard. In summary, our country should apply various social security systems to redistribute wealth while allowing more people to enjoy more preferential treatment, reducing the negative impact of

artificial intelligence, ensuring people's quality of life, and alleviating the mental pressure on employees caused by the development of artificial intelligence.

#### 4. CONCLUSION

In summary, with the development of artificial intelligence, people's work in various situations have undergone significant changes, which will greatly change people's daily lives and their physical and mental health, which is related to the happiness of people's lives, economic development, and social stability. Therefore, actively exploring the impact of artificial intelligence technology on employees' psychological anxiety is of great significance in improving their mental health level and responding to the changes and challenges brought about by new technologies.

#### REFERENCES

- [1] Ma, D. 2022. Coping strategies for job seekers in the context of AI interviews. *Mobile Information*, 2022(10):0166-0168.
- [2] Gao, D. 2022. Research on the construction and application strategies of AI smart fitness community in the context of integrating sports and medicine. *Contemporary Sports Science and Technology*, 12(1):98-102.
- [3] Su, Q. 2021. Research on existing problems and countermeasures in the future application of AI face-changing technology. *News and Communication*, 2021(5):17-20.
- [4] Shu, Y., Zhang, G. 2022. The negative impact of social networking site use on adolescents and coping strategies from the perspective of social comparison theory. *Basic Education Research*, 2022(3):3.
- [5] Liu, L. 2021. Research on development strategies of continuing education industry in the context of AI empowerment.

