

# Employment Guidance for College Students Under the Background of Artificial Intelligence

Fang Wang<sup>1,2,\*</sup>, Fenghai Zhang<sup>1</sup>

<sup>1</sup> College of Management, Dalian Polytechnic University, Dalian, Liaoning, 116034, China

<sup>2</sup> College of Management, Dalian Polytechnic University, Dalian, Liaoning, 116034, China

\*Corresponding author's e-mail: 11329214652@qq.com

## ABSTRACT

The employment rate of college students has always been a key issue of concern for society and universities. With the development of artificial intelligence technology, the combination of industrial selection and artificial intelligence in many fields to achieve intelligence is both an opportunity and a challenge for college students' employment. This research surveys college students on issues related to individual employment in the age of artificial intelligence by means of questionnaire surveys, and makes relevant suggestions on employment guidance.

**Keywords:** Artificial intelligence, college students, employment guidance

## 1. INTRODUCTION

In recent years, the development of artificial intelligence has been a hot topic that attracted much attention. Recently, due to the continuous impact of the epidemic in China, most enterprises are unable to carry out normal production work. However, the less affected by intelligent and highly automated companies has once again triggered social discussions. The development of artificial intelligence can effectively increase productivity and solve some production problems caused by force majeure. Therefore, the intelligentization and automation of enterprises will become a future development trend that will affect the employment pattern to a certain extent. There is no agreement on the employment impact caused by artificial intelligence. Some scholars believe that the emergence of artificial intelligence will inevitably lead to job replacement and reduce social employment. Some scholars believe that the development of artificial intelligence will create new industries and jobs while increasing employment. As a group who is about to enter social work, is the employment problem affected by the development of artificial intelligence? What is the source of the impact? In the face of such an era, how should schools guide students? It will be the problem we should solve.

## 2. ARTIFICIAL INTELLIGENCE AND EMPLOYMENT STATUS OF COLLEGE STUDENTS

### 2.1. Artificial Intelligence

Artificial Intelligence belongs to the field of computers. It is a new technological science that researches and

develops theories, methods, technologies and application systems for simulating, extending and expanding human intelligence [1]. The development of artificial intelligence technology is considered to be the fourth technological revolution, which enables machines to perform tasks that require human intelligence through mathematical models. From the rise of smart watches, smart clothing, smart robots, smart medical and other smart products, the artificial intelligence industry has gradually become the core of the development of smart technology products and the basis for the development of other smart industries. According to statistics, the global investment in artificial intelligence in 2014 was one billion US dollars, an increase of about 50% year-on-year; in 2017, it became the biggest hotspot in the information and communication field. At present, China has formulated related plans and policies for the development of AI (AI2.0, "Thirteenth Five-Year Plan"). Recently, due to the impact of the epidemic, some companies are unable to achieve full production operations. During this period, artificial intelligence technology and remote automation control systems have greatly helped the company to resume production, making it a hot topic again.

### 2.2. Employment Status of College Students

As shown in Table 1, the employment rate of college students from 2014 to 2018 has not changed year-on-year, but the number of college graduates has increased by nearly 1 million. According to the survey, from 2014 to 2018, the proportion of undergraduate graduates employed has continued to decline; the proportion of "self-employment" has declined slightly; the proportion of "undergraduate studies" and "ready for graduate entrance examination" has increased. At present, the employment rate is basically flat, but the quality of employment is declining. From this point of view, college students need a

good employment outlook and face intense competition pressure. As far as the current national situation is concerned, due to the impact of the epidemic, many companies have a tendency to lay off employees to control costs and most companies are hiring for jobs. At the same time, the development of artificial intelligence machines will replace more mechanically repetitive and refined jobs, increasing the skills requirements of employees and increasing the difficulty of employment.

**Table 1 National Employment Rate and Fate Distribution of National University Students from 2014 to 2018**

Year	2014	2015	2016	2017	2018
<b>E.R</b>	92.6%	91.7%	91.6%	91.9%	91.5%
<b>E</b>	77.6%	75.2%	75.1%	74.4%	73.6%
<b>S.E</b>	2.0%	2.1%	2.1%	1.9%	1.8%
<b>U</b>	13.6%	15.6%	15.5%	16.4%	16.8%
<b>R</b>	1.9%	2.1%	2.3%	2.7%	3.3%
<b>P.E</b>	4.5%	4.5%	4.6%	4.3%	4.2%

Note: E.R- Employment Rate, E-Employed, S.E-Self-employment, U-undergraduate studies, R-ready for graduate entrance examination,P.E-Pending employment

### 3. DATA DESCRIPTION AND ANALYSIS

This questionnaire survey and interviews conducted an effective survey of 427 college students, including basic information, the degree of understanding of artificial intelligence, the employment pressure caused by artificial intelligence, the source of pressure and what relevant information the school hopes to provide Wait. From the above perspective, explore how employment guidance and employment information should be provided for college students under the rapid development of artificial intelligence.

Table 2 shows the basic information of the investigators. According to the data, it is found that university students generally do not have a high level of understanding of artificial intelligence. Very few people know and compare only 30%, but they have brought about different levels of psychological employment pressure. Only 4.2% believe that employment will not be affected at all. . In cross-analysis, it was found that artificial intelligence generally believes that artificial intelligence has less pressure on its employment. During the interview, computer and other related majors believed that the development of artificial intelligence is more favorable to their employment

prospects, and that relatively better schools and major rankings can effectively alleviate the employment pressure brought by the development of artificial intelligence. The survey found that students' employment pressure comes from ignorance of artificial intelligence and its development, replacement of artificial intelligence posts, increased technical skills and employment requirements, and oversupply in the labor market.

**Table 2 Basic information table**

Item	Category	Frequency	Percentage
Major	Science and Engineering	159	37.2%
	Economic Management	129	30.2%
	Literature and History	54	12.6%
	Medical	25	5.9%
	Others	60	14.1%
Pressure	Very stressful	63	14.8%
	Stressful	64	15.0%
	General	136	31.9%
	Little stress	146	34.4%
	No pressure	18	4.2%
Stressor	Don't understand	122	28.6%
	AI replacement	106	24.8%
	Increased skills	134	31.4%
	Oversupply	42	9.8%
	Other	23	5.4%

As shown in Table 3, college students hope that schools can provide information on industry development, accounting for 35.4%, followed by employment environment and corporate recruitment information. According to the interview results, it is found that the employment pressure of students is more due to the asymmetry of resources. Often, it is difficult to improve

the ability to face the employment pressure without knowing the industry situation during the learning process.

**Table 3 Related Help from Hope Schools**

Item	Percentage
Information about industry development	35.4%
Employment environment and hot topics	23.3%
Corporate Recruitment Information	22.8%
Relevant employment policies by region	15.9%
others	2.6%

#### **4. NEGATIVE EFFECTS OF ARTIFICIAL INTELLIGENCE ON COLLEGE STUDENT EMPLOYMENT**

The development of artificial intelligence technology will inevitably bring technological progress, and technological progress will inevitably have substitution effects and disruptive effects [2]. Artificial intelligence technology will enable machines to have the wisdom of people who complete a certain job, and then replace labor, leading to a reduction in employment. At the same time, the technological progress brought by it enables enterprises to realize automated production plants and completely replace manpower with machines. Replacing artificial employment under the same conditions of enterprise size, reducing the demand for jobs. In addition, the benefits of artificial intelligence machines to enterprises in the same time are far greater than those of labor, which leads to an increase in investment returns for enterprises, which in turn reduces labor requirements.

Artificial intelligence has changed labor tools, improved human labor efficiency, and reduced physical demand for labor. Artificial intelligence has optimized management concepts and processes to increase efficiency and reduce the use of labor, leading to a lower employment rate. Artificial intelligence has disrupted the original talent demand system [3]. As intelligent simple behavior replaces functions, the requirements for human skills and knowledge increase. The improvement of human capacity has further improved the efficiency of the enterprise, and the increase in efficiency will lead to the reduction of employment. McKinsey GlobalInstitute's 2017 research report shows that by 2030, about 60% of occupations may be replaced by artificial intelligence and automation [4].

Artificial intelligence causes psychological pressure on college students' employment. Due to the asymmetry of

resources and information, employment panic was found. During interviews, it was found that the purpose of some college students choosing to continue their studies is to increase their personal competitiveness as well as to avoid the actual employment pressure.

#### **5. EMPLOYMENT GUIDANCE SUGGESTIONS**

##### ***5.1. Establishing the right employment outlook***

Help students realize that the development of artificial intelligence technology is an inevitable choice for the times and technological development. The vigorous development of artificial intelligence has become an established fact. As an individual, we should adapt to the development of the times and adjust our mentality. The main reason to help students understand that college students are having trouble finding employment is not artificial intelligence. The individual as the subject of employment is the determining factor. We should start from the individual, strengthen theoretical knowledge, improve personal skills, attach importance to social practice, and improve the comprehensive quality of individuals in all aspects.

##### ***5.2. Correct understanding of artificial intelligence***

The employment pressure of students mostly comes from the substitution effect of artificial intelligence. Help students understand that the impact of artificial intelligence on employment and the replacement of corresponding positions are very limited, and establish a good mentality. Secondly, it should help students recognize the positive effects of artificial intelligence. The development of artificial intelligence has brought many new industries to correspondingly increase employment. Secondly, technological change itself will bring corresponding jobs. Under the conditions of economies of scale, jobs will not be reduced due to the development of artificial intelligence, but will promote new Generation of posts. Furthermore, technological progress will bring corresponding compensation mechanisms [5]. Increasing labor efficiency, reducing costs, increasing corporate profits, and economic growth. And economic growth will increase wages, increase investment and increase new jobs [6].

##### ***5.3. Provide relevant information on industry development***

At present, most of the pressure caused by artificial intelligence is due to the fact that the information recruitment information is not equal. Providing industry

information and the development of related industries and giving corresponding learning opinions can help students understand the development of the industry in time and adjust their mindset and learning direction to achieve the connection between social development messages and students.

## 6. CONCLUSION

As mentioned above, the development of artificial intelligence technology has had a certain impact on the employment prospects and employment psychology of college students. Whether it is positive or negative, there is a personal subjective thought. As an important inheritance for students to enter the society, colleges and universities should provide students with information and resources on the development of artificial intelligence, professional and industry development, policies and employment information, so as to actively guide students' employment and employment concepts effect.

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