

The Construction of Employment and Entrepreneurship Service System for University Students Based on Big Data

Wang Xiaoying¹⁾

Abstract

In recent years, the employment situation for college graduates has become more and more severe. The pressure for stable employment has increased. The structural contradiction between "difficulties in employment" and "difficulties in recruiting" has existed for a long time. This article explored the current status of the employment information service system for college students, through a comprehensive analysis of the current employment difficulties of college students, combined with the current big data environment background to construct a college student employment information service system. Through the construction of the employment information service system for college students, providing more powerful information support for the employment of college students is an effective measure to solve the employment problem of college students.

Keywords: Employment, Entrepreneurship, Employment Information System, Big Data

1. Introduction

College graduates play an important role in the development of the country. They are the main force in the promotion of the country's innovative development strategy, and an important human resource wealth of our country. The employment problem is not only the people's livelihood, but also the national economy. It is related to the sustainable development of the economy and society, the reasonable allocation of human resources, and the stability and stability of the society[1]. In June 2017, the Minister of Human Resources and Social Security Yin Weimin emphasized that it is necessary to strengthen the analysis of the employment situation based on big data and carry out accurate online employment services. With the rapid development of new technologies such as the Internet of Things and cloud computing, the application of big data in science, technology, education and other fields has been profoundly affected. As a university administrator, you should seize the opportunity, keep up with the pace of the times, make full use of Internet thinking, build an employment service system

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1) (Professor) Student Career Center, Dalian Maritime University
email: 7273525623@qq.com

based on big data, increase the employment rate of college graduates, and enhance the quality of employment.

At present, the education of most domestic colleges and universities has problems such as backward theoretical courses and insufficient practical courses. Education lags behind the development of social economy. As a result, the abilities of university graduates cannot fully meet the needs of society, and the employment expectations of graduates are difficult to achieve. Improving the employability of college graduates is a major focus of college education and social development[2]. In order to improve the employability of graduates, it is necessary for college students to fully understand the needs of enterprises and institutions.

Therefore, this study aimed to build a complete employment information service system for college students to provide graduates with rich employment information services and information support for their employment process. This is intended to solve the employment problem of college students to a certain extent.

2. Current Status of the Employment Service System for College Graduates

2.1 Employment Status of College Graduates

With the changes in China's national economic situation and the development of the market economy system, the employment of college graduates has changed from the state distribution of the planned economy in the past to the "two-way choice and independent job selection" model under the market economy. Choosing jobs on their own provides more job opportunities for college graduates, and it also brings more pressure from job competition. According to relevant data from the Ministry of Education, the number of vocational students reached 8.2 million, which increased to 8.34 million in 2019. In recent years, with the continuous deepening of reforms in my country's higher education, the number of college graduates has been increasing every year, and employment pressure has increased year by year. In order to allow college graduates to get a smooth and high-quality employment, many colleges and universities have established employment guidance departments, but the results are not satisfactory, and there are difficulties in finding jobs and recruiting people. Analyzing the reasons, there are mainly the following aspects.

First, with the rapid development of today's society and economy, various industries and fields have been affected by cloud computing and big data. The demand for talents in society is gradually diversified and complicated, and colleges and universities at all levels have entered

a stage of general expansion. The number of college graduates has increased year by year, while the number of professional posts required by society has not changed much, resulting in an imbalance between supply and demand.

Second, the majors offered by some colleges and universities are out of touch with market demand. Due to the rapid development of the market economy, some colleges and universities have opened a number of "hot" majors, and the establishment of these "hot" majors is not based on social needs. Resulting in students being unemployed just after graduation, which has led to the employment pressure of today's graduates. In addition, most of the recruitment information released by key universities, large companies, and scientific research units are basically master students and doctoral students. The employment threshold for graduates has been increasing year by year, and the focus of the talent structure has been artificially raised, resulting in the current situation of college graduates' difficulty in obtaining employment.

Third, some college graduates have not established a correct outlook on career choices, and are keen to take root in first-tier cities. They would rather be the "ant tribe" and "drifter" in big cities than to work in the grassroots or second and third-tier cities, let alone Go to economically backward places to develop. As a result, hot jobs are crowded together, and many employers cannot recruit and urgently need talents.

Fourth, there is a lack of information communication bridges between employers and college graduates, which leads to a lack of timely information communication between the two parties' needs, and the phenomenon of "people do not know where they are, but they are not." So that the school can not carry out targeted employment service guidance work, and students can not effectively prepare for job hunting.

2.2 Problems in the Employment Service System for College Graduates

There is a lack of information communication bridges between employers and college graduates, leading to a delay in communication between the two parties' needs and information, and the phenomenon of "people do not know where they are and where they are not." So that the school can not carry out targeted employment service guidance work, and students can not effectively prepare for job hunting. In colleges and universities, the main force for employment guidance work is mainly counselors, who lack the guidance of students' professional knowledge and have relatively little experience in employment service guidance. Therefore, the service guidance who work for the employment career of students can only cover the "face", and the lack of focus on the "points" results in the lack of a key role for the employment guidance of

students.

A complete employment service system for colleges and universities should include students' study and life planning, job hunting dynamics, and information feedback after graduation. From the beginning of enrollment, students must count their relevant information, and at the same time do a good job in the dynamic investigation of students in the job search process and information feedback after employment. At present, the employment guidance work of most universities has problems such as weak teachers, lack of systemicity and continuity in the employment process, and lack of feedback mechanisms between schools and employers[3]. With the popularization of information technology, most colleges and universities have established their own employment service platforms, and certain progress has been made in the construction of employment information in colleges and universities. However, due to different reasons, the human, material, and financial resources invested by colleges and universities in information construction are insufficient. The functions of information construction are single and the facilities are backward. There is no information sharing system between universities and government departments, employers and various departments of the school, and there are information islands. The authenticity and timeliness of the information is poor, and students cannot obtain effective employment information from it, resulting in low utilization of employment platforms.

Students will accumulate a large amount of data in their academic and employment careers. Through data collection, storage, processing and analysis, the school can achieve effective job matching according to the actual situation of students. However, in reality, due to employment pressure, in order to pursue indicators such as the initial employment rate and year-end employment rate, colleges and universities usually focus on opening employment guidance courses and opening up the job market. Ignore issues such as whether the major meets the needs of society and the follow-up long-term development of students, and fails to realize the effective use of data. Employment platforms and employment personnel simply collect and release recruitment information, and cannot provide targeted guidance during the recruitment process of students, causing students to miss important recruitment information.

With the construction of educational information facilities, the school has collected a large amount of data from students during their stay at school, and has also built a special employment network platform. However, the employment network platforms of most colleges and universities cannot be used effectively. The employment platform information is lagging behind, and the information push is relatively single. It is impossible to conduct in-depth mining of valuable information on student data. It simply collects and releases recruitment

information without in-depth analysis. Can't accurately push personalized information according to the actual needs of students[4].

At present, the main reason for the employment problem of college graduates in China lies in the low employability and weak employment awareness of college student. The main service targets of the current college student employment information service system are limited to college graduates. Also, the improvement of employability and the cultivation of employment literacy is a long process. Employment information services need to focus on the entire college career of college students. At the beginning of the freshman year, they should cultivate their employment awareness and provide employment information services for them to slowly find their own employment direction and employment goals. So as to make it work hard to improve its employability towards employment goals. The employment information service system for college students only provides services from the beginning of their college careers, and develops full-process and multi-faceted services to enable graduates to catch up with the pace of social and economic development.

3. Analysis of Employment Problems of College Students

Combining my undergraduate employment experience, analyze the specific aspects of salary, unit benefits, working environment and so on in the employment of college students.

First, students usually pay less attention to the current employment situation and insufficient targeted employment guidance and training. The rapid increase in the number of undergraduates puts students under tremendous pressure on employment. The research team has found that the employment guidance services for undergraduates are obviously insufficient, both in terms of emphasis and targeted guidance and training. A large number of undergraduates are blindly optimistic about the employment situation, overestimating the employment advantages of their academic qualifications, leading to problems such as insufficient preparation for employment, affecting the employment rate and quality of employment.

Second, students blindly enter postgraduate and civil servants. It is a good thing for students to pursue further studies in academics, but they often do not work hard. They just want to fill in some 985 colleges and universities, but they do not match their own studies, which leads to final failure and delays in choosing a career. Students who are admitted to civil servants account for a large percentage each year, and they often succeed but rarely. It is also the students who overestimate their learning ability.

Third, the structure of students is uneven, and the foundation for employment training is

weak. I have made statistics on the structure of the 2019 students, and about half of the students come from rural areas. The survey shows that most of the students did not have an employment internship or part-time job during their stay at school, so they encountered many difficulties and problems in the process of employment. The results of this questionnaire survey (see [Fig. 1]) show that more than half of the respondents have "lack of practical experience", "inadequate employability", "lack of social relations", "lack of job search methods and skills", "lack of job information" and other issues Both account for a large proportion. The quality reports of graduate education in many universities show that "the quality of students is not high" has become one of the current problems in undergraduate education.



[Fig. 1] Difficulties and Problems Encountered in the Process of Employment

Fourth, there is a lack of necessary psychological counseling and guidance in the process of employment of students. Some psychologists pointed out that with the continuous expansion of domestic education scale and the increasingly fierce social competition, the pressure on college students' academic, employment, emotional needs and economic conditions is increasing. . The psychological problems of students have become more prominent, various psychological and behavioral problems caused by psychological disorders are increasing day by day, depression, suicide and other phenomena occur from time to time[5]. Therefore, timely and accurate analysis of the causes of postgraduates' psychological barriers and put forward effective solutions are essential for student education management and training, including employment.

4. Build a Big Data-based Employment Information Service System for College Students

4.1 Construction Principles of Employment Information Service System

(1) The guiding principle. In addition to professional and technical knowledge research courses, colleges and universities' training programs for college students should also include targeted employment guidance and services to train and guide students to establish a career-oriented way of thinking, help students make reasonable employment plans, and ensure employment Services are highly consistent with student needs.

(2) Scientific principles. In the process of providing employment information services for students, colleges and universities not only need to measure the types of talents that meet current social needs, but also take into account the students' own abilities and professional skills, provide relevant scientific insights and reasonable suggestions, and balance the importance of the two. Too much attention to one of the companies and college students.

(3) The principle of integrity. Among the student groups that universities need to provide employment information services, graduates seem to be particularly important, but what needs more attention is the cultivation of freshmen, the moment students enter the university campus, the comprehensive employment information services throughout the entire university life. In order to cultivate the employment awareness of every college student and gradually form a mature employment concept.

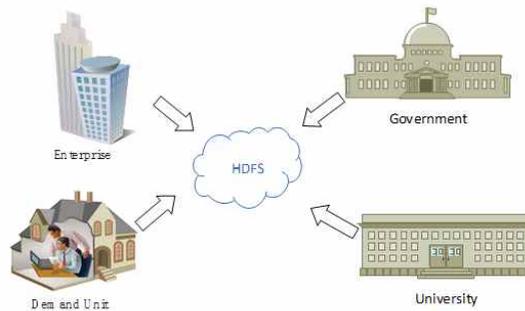
(4) The principle of feasibility. The employment information service model and content of colleges and universities should meet the current recruitment direction of enterprises and the actual needs of college students for employment. On the basis of providing consulting services, career guidance is provided for the purpose of providing professional and feasible employment advice[6].

4.2 Construction of the Employment Information Service System for College Students

4.2.1 Establish an Employment Data Cloud Platform

Nowadays, data has become a national basic strategic resource, and the development and application of big data benefit every aspect of social development. The country has always attached great importance to the employment of college students, and cloud platforms can effectively solve this problem. Relying on the computing services provided by various cloud computing platforms and through virtualization technology, an employment data center is established. The data center collects data such as job fairs, presentations, employment positions, recommendation forms, and agreements, and stores them in the cloud data center, and effectively integrate the data, use MapReduce to realize the dynamic update, storage, indexing

and efficient retrieval of massive employment data, and improve the management efficiency and flexibility of the platform[7]. as shown in [Fig. 2].



[Fig. 2] Employment Data Cloud Platform

4.2.2 Establish a Student Job Preference Model

Establish a job-seeking preference model for college students, rely on massive employment data, play the role of big data, optimize recommendation algorithms, and improve the accuracy of job recommendation. First, through the employment information service platform, analyze the daily visit logs of college students, mainly including: click to view the company, position, time spent on a webpage, posted resumes and favorite companies, through cluster analysis Construct the visit preference of group students; secondly, analyze historical dispatch data, classify students of different educational level, gender, region and academic level, and calculate the nature, scale, region and salary of different types of students' preferences Finally, the corresponding graduates' visit preference model and the preference model of past students' graduation destinations are set with respective weights, and the comprehensive weighting calculation is carried out to achieve the accurate and effective job recommendation algorithm[8].

4.2.3 Establish a Portrait Model of the Employer

By collecting various data of employers in recent years, such as job fairs, presentations, job postings, recruitment requirements and conditions, etc., establish a database of employers, and clean, classify and convert the data they have. Use the collected data to label the employer and establish the factual label of the employer, mainly including the profession, school, salary, etc. that are preferred by the recruitment; use clustering and other machine learning algorithms to establish the model label of the employer to evaluate the employer's Group characteristics; through prediction and association mining algorithms to establish employer prediction labels, to achieve reasonable scientific predictions of employer recruitment behavior, so as to achieve

precise matching and provide personalized services.

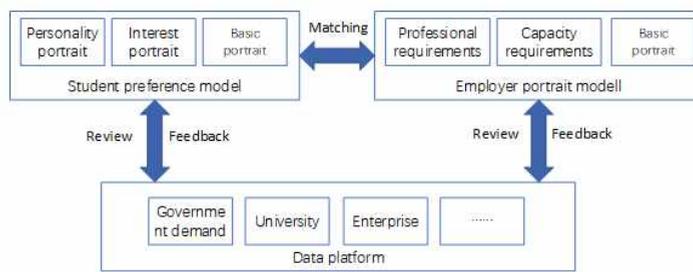
4.2.4 Establish an Employment Information Review Mechanism

Information security has always been our top priority. During the operation of the employment information platform, it is necessary to strictly regulate information release, improve the quality of employment information release, and strengthen strict control and supervision of the source of information release. Therefore, the platform needs to establish a registration certification and review mechanism for employers. First, unify the employer database, separate the company's business registration information from the unit contact information, and realize the unique business information database of the employer and shared by each school. The unit contact is not unique and can be bound to each sub-platform. Second, establish a structure Auxiliary review mechanism for graduate employment and survey evaluation, based on the name of the employer to search for graduates recruited in the past three years and the feedback of graduates participating in evaluation, set different weights, and obtain the score of the employer's participation in the employment of graduates, as the employment review. Finally, it is connected to the industrial and commercial credit interface, and the system automatically returns the natural attributes of the enterprise and the verification results of the employer's contact person to manually assist in determining whether the enterprise has passed the verification and review.

4.2.5 Establish an Employment Evaluation Feedback Mechanism

This mechanism is conducive to the mutual benefit of universities, enterprises, and the government. The automatic and accurate matching of employment information and evaluation feedback is a dynamic interactive process. The establishment of an employment information service platform can achieve precise matching of employers and employed students. Through the feedback mechanism, the recommendation model can also be reversed to make the recommendation model more accurate and provide more optimized personalized services. At the same time, the competent government departments can also adjust employment policies in a timely manner to force higher education reforms, so that higher education training is more in line with market demand. This is the benefit of big data statistical analysis.

Through the analysis of the above five dimensions, a university student employment information service system based on the big data platform is constructed, as shown in [Fig. 3].



[Fig. 3] College Student Employment Information Service System

5. Conclusions and Recommendations

This paper studied the development countermeasures of employment information service system in the era of big data. First, a complete information communication channel and an efficient information exchange mechanism must be built so that graduates can obtain relevant information in a timely and accurate manner to achieve employment goals. For example, colleges and universities can organize various themes of employment guidance, excellent alumni experience sharing and other report conferences according to the actual needs of students to help students establish a correct outlook on career choices and avoid various problems encountered in the process of employment in a timely manner. Secondly, employment guidance departments at all levels of colleges and universities should formulate targeted employment development plans based on their respective discipline advantages and talent training programs, and improve the college's employment process. To ensure the smooth progress of the employment of graduates, the main departments at all levels should also increase the importance of the employment process to ensure that the "four in place" in the graduate employment process, that is, the departments, management personnel, funds, and site layout are all implemented. At the same time, it is necessary to designate a practical and feasible guarantee system in the employment work, and design the system for the professional advancement of graduate employment staff. This is to promote the top-level design and smooth progress of the employment information system, and ensure that universities have rules to follow when carrying out their work. Provide system guarantee for enhancing the stability of personnel and the overall level of the team.

Build a daily and normalized information platform for college job market organization. Nowadays, the main channel for graduates to understand the employment situation is the annual university talent market, which covers a wide range of majors and employs many

companies, which has attracted widespread attention from departments responsible for employment in various departments and graduate students. The university talent market needs a lot of complicated and cumbersome preparations before it is held, including: timely release of recruitment information, inviting employers to attend the conference, preparation of postgraduate materials, and determination of the content, form and location of the examination. Providing precise employment services at the individual level of graduates has effectively increased the employment rate of college graduates, guaranteed the quality of employment, and played an important role in improving the employment satisfaction of graduates.

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