

# Strategies and Reflections on Talent Cultivation of Tertiary Education in Era of Big Data

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**Abstract:** The era of big data has brought new challenges and opportunities to various industries. The education industry is also facing a subversive revolution. The talents that meet the needs of the big data era are no longer single, traditional talents, but able to advancing, comprehensive and comprehensive talents, this undoubtedly puts higher demands on tertiary education. Tertiary education based on big data should provide services for talent cultivation, discovery, use and development. It is necessary to pay special attention to predicting the future talent development trend from the historical data of talent training in tertiary education. This paper analyzes the characteristics and value of the big data era. The challenges faced by tertiary education in the era of big data, this paper discusses the innovative measures to meet the challenges of tertiary education, aiming to provide some reference for the innovation and sustainable development of tertiary education in China.

## 1. Introduction

From the Internet era to the era of big data, the changes of social production and life style constantly put forward new requirements for tertiary education personnel training, driving the continuous transformation of personnel training strategies. The massive data collection and rapid data analysis of big data provide greater space for the innovation of tertiary education mode. In the era of big data, how to better realize the informatization of continuing education and use information technology to promote the development of continuing education is an urgent problem to be considered[1]. With the advent of big data era, we have redefined the way and content of the so-called “data” in social life, which is an important opportunity for us to re understand the deep quantitative corresponding relationship between education and data, data and behavior, behavior and psychology and other elements of talent training quality evaluation[2]. It is an effort to deal with the impact of big data technology on tertiary education to comprehensively examine the work of talent training in tertiary education and to re-establish the concept and strategy of talent training in tertiary education.

Big data has become one of the subversive technologies in the field of information because of its scale, high speed and diversity. Huge data volume, various data types, low value density and fast processing speed are the main characteristics of big data, which not only changes people's life and work style, but also brings a qualitative leap to various industries. It is because of the collection, mining and analysis of information and data that we can better complete the analysis of the market and promote the further development of the industry[3]. Some experts pointed out that the great convenience and value brought by the era of big data has brought greater convenience to people's lives, but also brought unprecedented challenges to various industries.

The emergence of the era of big data will change people's understanding of data, which not only embodies the great significance of data existence, but also enables people to find the hidden value behind through data processing. Especially for the tertiary education industry, this is not an opportunity. Big data has the absolute ability to enable colleges and universities to systematically record and count the comprehensive situation of students and the development of colleges and universities, and get important information to promote the progress and development of colleges and universities through the integration of data[4]. In this paper, from the opportunities and challenges faced by the personnel training mode of tertiary education in the era of big data, and the

reform ways of personnel in tertiary education, the transformation mode of tertiary education teaching mode is specifically analyzed. It provides a new technical support for the reform of talent training mode of graduate tertiary education.

## 2. The Challenge of Tertiary Education in the Era of Big Data

In the era of big data, the teaching concept, personnel training mode, teaching content and mechanism of tertiary education have changed correspondingly. However, there are some problems in the current tertiary education system of our country that are not in harmony with the era of big data[5]. This is a challenge to tertiary education, so that we can more clearly understand our own shortcomings, and change and reform in this direction. The change of talent cultivation based on big data is shown in Figure.1.



Fig.1 the Change of Talent Cultivation Based on Big Data

### 2.1 The Lack of Tertiary Education Concept in the Era of Big Data

In recent years, China's colleges and universities continue to expand their enrollment, and the scale of colleges and universities continues to grow[6]. The expansion of this scale requires colleges and universities to adjust their personnel training programs and teaching modes, and strengthen the construction of information and data in various links to ensure the improvement of education system and meet the development requirements of the era. However, due to the slow renewal of the concept of China's tertiary education system, it still follows the previous plan in personnel training and fails to adjust the personnel training program in time according to the needs of the new era. Many professional curriculum systems fail to keep up with the market demand, which leads to the lack of application ability and innovation ability of students, resulting in the unsatisfactory employment of college students[7]. In the aspect of information and data construction, there are still external evaluation conditions such as the government and the school, and the participation of students is not enough, which leads to low openness of information and data, insufficient prediction and feedback guarantee in the construction of teaching quality and teaching facilities, and mismatch between system and scale, etc.

### 2.2 The Data Information System of Tertiary Education Has Not Been Completely Established

The arrival of the era of big data makes it possible to establish the information system in an all-round way. Restricted by the actual conditions, the information system of tertiary education in China is far from keeping up with the development speed of information technology, especially in the aspect of the basic running data and the information of the dynamic development of colleges and universities, which is still under construction[8]. The imperfection of this information system directly leads to the backwardness of the teaching quality. Due to the systematic statistics of funds,

the construction of hardware facilities, the basic information of students, the evaluation opinions of students, the evaluation of parents and the public, and the feedback of employers to students, there is not a complete system, resulting in the closure of information and the asymmetry of information, resulting in the lack of guarantee of teaching quality in colleges and universities. Only by establishing a perfect data information system, can we comprehensively evaluate the teaching situation of tertiary education, improve the teaching conditions and make up for the deficiencies in teaching, so as to improve the teaching quality and realize the sustainable development of colleges and universities in the era of big data.

### **2.3 The Scientific Level of Tertiary Education Quality Standard is Low**

At present, the quality evaluation standards of tertiary education in China are mainly based on the work guidelines and evaluation standards issued by the ministry of education, and the national standards are implemented, and the specific standards can be implemented among regions. This quality standard is solid, it is formulated according to the actual situation of our country, and also taking into account the regional differences, but in terms of its scientific degree, it is relatively lacking. The quality inspection standard of China's tertiary education should be based on the era of big data, forming a strong data and scientific inspection standard[9]. Only under the real and objective data, the standard of comprehensive analysis is in line with the objective laws, practical and scientific standards, so as to provide a comprehensive and complete basis for the quality inspection of tertiary education. At the same time, we should improve the tertiary education according to the results of data analysis, especially in the aspects of curriculum, teachers and practice, which do not achieve the expected goals, and complement and develop them.

## **3. The Reform Strategy of College Teaching Methods in the Era of Big Data**

### **3.1 The Reform Strategy of College Teaching Methods in the Era of Big Data**

The impact of big data on education is self-evident. In many developed countries, the application of big data in the education industry has reached a certain level, and the teaching quality and management level have been promoted to a new level through in-depth mining of education data. Taking the United States as an example, the enrollment rate of students has been predicted based on the factors such as the learning situation of students analyzed by big data, and the accuracy has reached 85%. At present, the application of big data in tertiary education in China is still in its infancy, and the development of this effective way of work needs to rely on the advanced concept of big data. The era of big data brings not only the revolution of teaching methods and teaching quality to Chinese education, but also helps Chinese educators to change their teaching concepts and promote the new revolution of tertiary education with scientific means and approaches under the guidance of advanced concepts. Big data provides the possibility for the development of data and science in colleges and universities[3]. Students can use the form of data in the whole process of learning, and the comprehensive statistics and analysis of the data results can promote the improvement and improvement of teaching quality and system construction in colleges and universities. We should make good use of the data management platform in the era of big data, pay close attention to the professional construction of tertiary education, continuously strengthen the management system, improve the management structure, comprehensively improve the talent training, and realize the innovation of management mode, so as to meet the high requirements of the era of big data.

### **3.2 Constructing the Organizational Structure of Tertiary Education Quality System**

The main body of institutions of higher learning should include government departments, schools, students, parents, employers, and have relatively independent professional evaluation institutions. Due to the different demands of different subjects for tertiary education, it is necessary to build an organizational structure to ensure the quality of tertiary education in the era of big data. The construction of the quality system organization needs to be based on big data, make full use of

the Internet and other means to form a guarantee system with distinctive characteristics of the times, high-tech level and information exchange[7]. The construction of the quality assurance system of tertiary education requires the school to provide monitoring and management, and regularly evaluate the talent training objectives; students mainly evaluate the teaching activities and urge the school to improve the quality; parents' evaluation of the school is also an important basis for promoting the quality improvement of the school; employers can provide relevant data information according to the situation of graduates[5]. The main role of the relevant government departments is to carry out macro-control, from the height of policy to support the school funding and other related support. The quality system of tertiary education established by big data platform can extract all kinds of information, analyze and compare them according to the data, so as to make scientific and objective teaching quality evaluation report and improve the quality of the school. The talent training process based on big data processing is shown in Figure.2.

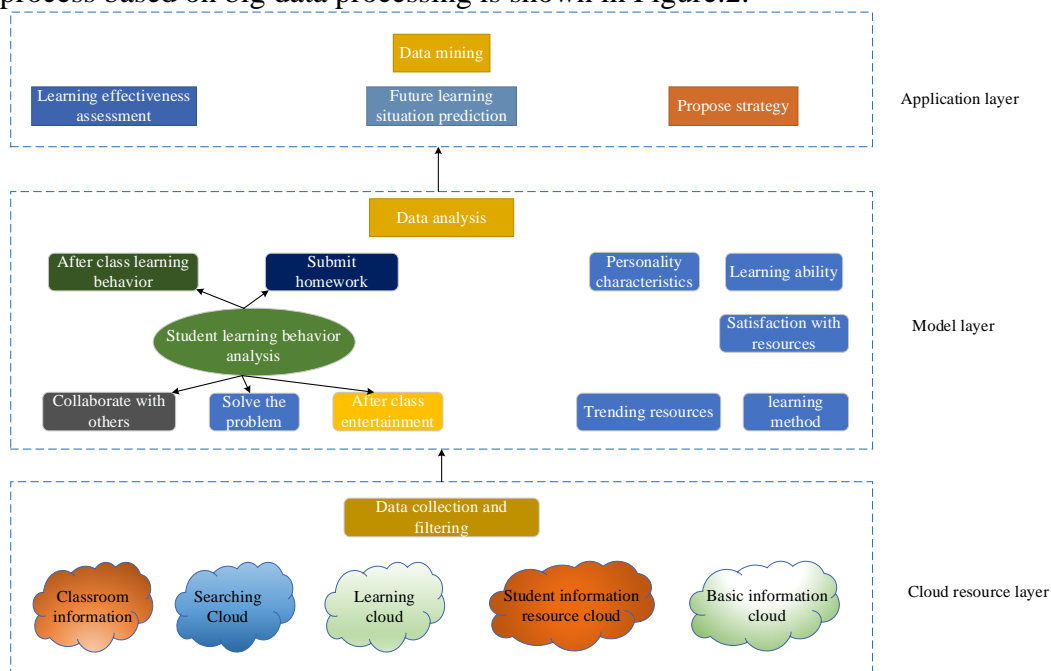


Fig.2 Talent Training Process Based on Big Data Processing

### 3.3 Improve the Scientization of Tertiary Education under Big Data

Under the background of big data, tertiary education urgently needs to improve its scientific level, which is not only the need of the development of the times, but also the necessary condition for tertiary education to improve itself. Scientization is the inevitable direction of education development, which is the objective requirement of building a socialist harmonious society. In the process of improving tertiary education in China, it is necessary to conduct scientific analysis on the information obtained from the analysis of big data platform under the guidance of scientific concept, with the aid of high-tech means, so as to ensure the scientificity and objectivity of information, so as to better promote the high level. Under the background of big data era, the development of tertiary education is a challenge and an opportunity, which is conducive to facing up to the shortcomings of current tertiary education and making reasonable adjustment and improvement. The revolution of tertiary education in the era of big data is not only a historical necessity, but also a reasonable revolution in line with the requirements of the development of the times. This undoubtedly provides a necessary prerequisite for our education to better integrate with the international community. We should fully seize this opportunity and constantly improve ourselves to meet the challenges of the era of big data.

## 4. Conclusion

Under the background of big data era, people's life and production mode have changed greatly.

The demand of social development for big data high-quality talents is constantly increasing, and the expectation value is higher and higher. It is an important way to scientifically and systematically formulate the knowledge structure and professional quality training program of big data high-quality talents, and to promote effective teaching methods. We should make full use of this technology, and then make a scientific and reasonable tertiary education management plan, effectively help the tertiary education managers to formulate the training objectives and related programs reasonably, so as to further improve the overall level of tertiary education personnel training, and solve the contradiction between tertiary education personnel training and social needs at this stage, effectively promote the role of education management in the construction of campus culture, system construction and education development.

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