Research on Incentive Mechanism of Higher Education Management Information Innovation in Big Data Environment

Lanlv Hang

Nanjing Tech University, Nanjing 211816, China

ABSTRACT. In the era of big data, the development of information management in college education has produced some changes. Under the new situation, how to promote the better development of education management information in colleges and universities has become a key issue for relevant personnel. Based on the development status of college education management informationization under the era of big data, this paper mainly analyzes the path of innovation and development of education management informationization incentive mechanism in colleges and universities, in order to find a reliable way to promote the continuous improvement of the quality of college education management under the era of big data.

KEYWORDS: Big data; Higher education management informationization; Innovation incentive mechanism

1. Introduction

In today's era of constant change and adjustment, the use of big data gives us the opportunity to reverse the values of exam-oriented education, model each student through data analysis, knowledge mapping, summarization, and cognitive rules, and then grow models and learn. The files are established and a comprehensive evaluation of the entire learning process is carried out.

2. Comprehensive quality evaluation and big data effectiveness of college students

"The birth of big data Ten people have made great waves of change in various industries on the basis of the development and leapfrogging of data collection, transmission, storage and processing analysis." With the application of modern information technology and popularization, the domestic set off a new wave of new educational information, "digital learning", "micro-courses", "flip classroom", 1 to 1 "E-classroom" and other teaching practices are setting sail, "online evaluation" All
kinds of large-scale examinations, superstars, elegant and pan-Asian SPOCs and mixed learning models are gradually accepted and put into practice. The record of huge amount of data such as study, life and communication of college students makes the ideological dynamics behind the behavior of hiding ten become public. Through the accurate identification of the behavior of the data, quantitative definition on the basis of qualitative, continuous inversion and analysis, find The core of thought behind the behavior will provide new thinking, new methods and new means for comprehensive quality evaluation. Education is the foundation of people's livelihood. Education reform has always been a subject of constant exploration. How to effectively explore, analyze and utilize the vast amount of data contained in teaching and learning to promote teaching, explore the education system, models and methods under the new situation, and promote China. The development of education has long-term significance.

3. Innovation of Incentive Mechanism of Information Management in Colleges and Universities under Big Data

3.1 Insufficient awareness of big data technology application

At present, most of the staff in colleges and universities lack the awareness of applying big data technology, and the advantages of big data technology are not recognized by the student management staff. In the actual work of college education management, there are many problems such as inconsistent data model, insufficient technical ability, insufficient use of methodological evidence, insufficient research and application of big data technology, and limited funds. The existence of these problems has affected the realization of the application goals of big data technology.

3.2 Insufficient standardization of education management data

When colleges and universities apply a lot of information management systems, although the management data of students is clearly visible, the consistency and uniformity of data are not strong, which makes the data normative. The original raw data and the newly added student information cannot be organically combined. The problems of non-standard and imperfect are widespread. The data cannot be circulated and difficult to share, making the informationization process of college education management work slow in the era of big data.

3.3 Independent education management data of each department

In the education management work, the various departments and units of the university have different functions and powers[1]. Their functions are different, and the way of obtaining information, the content of information and the means of processing information are different. The application of diverse information processing systems in different departments and different units has led to loopholes
In information management within schools. Information independence has affected the establishment of a unified database in colleges and universities. In the current college education management work, many colleges have not yet established a complete information platform and data processing mechanism, so that independent data can only be integrated through restrictive data flow and channels. Such a reality is a hindrance to the application of big data technology in the education management of colleges and universities.

4. Innovative path of college education management informationization incentive mechanism under the era of big data

In the rapid development of information technology, the application of big data technology in the education management of colleges and universities has become a foreseeable inevitability[2]. Big data technology will become a key technology in the education management of colleges and universities, and solve many problems for the education management of colleges and universities. To apply big data technology, education management workers must also actively reform, and strive to change the school education management environment and personal education management concepts, and develop effective application methods.

4.1 Establish the correct big data technology application concept

First, education management workers should recognize that university data is a resource for college education. Pay attention to the accumulation of historical data of colleges and universities, continuously generate real-time data, collect real-time data, combine school data with external industry data, and use big data technology to analyze and mine, in order to promote the educational advantages of college education management system and improve The core competitiveness of colleges and universities finds the direction of future development of colleges and universities. Recognizing that data is a resource can promote the application of big data technology.

Second, change the thinking of students' education management work. Applying big data technology to the education management of colleges and universities not only supplements the traditional student education management, but also reforms the mechanism of education management, but changes the educational management thinking at the macro level and promotes the formation of analytical thinking and comprehensive thinking. Recognizing the correlation and continuity between data, college education management can break the traditional causal relationship.

Third, big data technology applications focus on methods[3], not just simple data analysis. Using big data technology and related methods to innovate the education management of colleges and universities, so that the education management system and data within the school can be fully circulated, in order to effectively analyze the relationship between student education management data and relevant data inside and outside the school, and understand the application value of talents in the school.
Implementing refined management principles in the education management of colleges and universities, and updating the educational concept in the context of big data technology, can usher in a greater educational revolution.

### 4.2 Plus the construction of university students' big data platform

Establishing a platform for the full-factor circulation of various data is a necessary measure to make good use of big data technology to do education management. Such a big data platform can provide unified data access and storage[4], management and analysis, calculation and cleaning functions for data systems. Deepening the development of big data platforms and promoting the construction of big data platforms will enable the advantages of the big data era to be reflected. The application of big data technology in the process of college student management makes it impossible to use independent data or a broken data platform as a tool to build a university's big data exchange platform and data processing platform to the greatest extent possible, so as to lay a foundation for the application of big data technology.

### 4.3 Solve independent data problems in various departments

The management institutions within the university each carry out their respective functions, and the data between the various departments is not shared and integrated[5]. In the process of applying big data technology to update the education management of colleges and universities, this is a major mechanism hinder. Promote the sharing of information and information between various departments within the school to ensure the application of big data technology. University administrators should pay attention to the reform of education management and give necessary support for the reform of education management. To promote the development of information management in education management, it is necessary to unify standards and promote the sharing and unification of information. In the era of big data, in order to integrate all student information into one system for analysis and processing, it is necessary to promote the integration of information processing functions of various departments and promote the quality of education management.

### 4.4 Improve the data integration mechanism inside and outside the school

The integration of internal data of colleges and universities and data of various industries is another important point to promote the application of big data technology in the education management of colleges and universities. Colleges and universities are not a closed social system. In the society, there is a saying that "colleges are a microcosm of society.” Because of this, colleges and universities cannot develop independently of society[6], and universities have a direct relationship with economic and social development. The development of external data of colleges and universities will put the social data collection and analysis work related to students in an important position, which can improve the core
competitiveness of education management in colleges and universities, and make education management work more valuable. Colleges and universities should establish an external data collection and processing mechanism, and establish a university information fusion platform with the help of big data technology. Through the integration of internal data of colleges and universities and social industry data, the management of college students has become a service for students, and it has exerted maximum effectiveness for the work of social service.

5. Conclusion

In summary, the application of big data technology in education has become an inevitable direction of education reform. University administrators should seize the opportunity of the times, do things with the times, and actively apply big data technology to promote the informationization of student education management. In the big data technology environment, the innovation of education concept and the innovation of student education management mechanism can promote the value of student education management and promote the combination of big data technology and education development.

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