

# ***Reform Teaching of “Internet + Innovation and Entrepreneurship” in the Era of Big Data***

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**Abstract:** In the era of big data, data-driven innovation and entrepreneurship education for college students has become a research hotspot. This paper first analyzes the deficiency of innovation and entrepreneurship education for college students, and then discusses the data convenience and direction leading of “Internet + innovation and entrepreneurship”, finally puts forward the ways to improve the teaching reform of “Internet + innovation and entrepreneurship” from the following aspects: changing the concept of innovation and entrepreneurship education, building a working platform for innovation and entrepreneurship, and constructing a real-time evaluation system in the innovation and entrepreneurship of college students in the era of big data.

## **1. Introduction**

“Innovation is the primary engine of development.” Only by mastering the ability of “Internet + innovation and entrepreneurship” can college students survive in the rapidly developing social and economic environment. In the era of big data, how to better cultivate college students' innovation consciousness and entrepreneurial ability is an urgent problem to be solved.

## **2. The Current Situation of Innovation and Entrepreneurship Education**

In recent years, although the innovative consciousness and entrepreneurial desire of university students have been increasing year by year, the current social innovation and entrepreneurship have not been effectively linked to big data technology and “Internet +”, so the success rate of entrepreneurship is still low.

### **2.1 Lack of Awareness and Initiative in Innovation and Entrepreneurship**

In today's society, parents generally expect their children to have a stable job in the future, and there

are all kinds of uncertainties on the road of innovation and entrepreneurship in addition, which all directly or indirectly leads to the impact of parents' ideas on students. In the test of “whether to start a business after graduation”, 15.24% chose “yes”, 48.8% chose “uncertain”, and 35.96% chose “never thought about it”. In addition, according to the survey data, 59.7% of the students answered, “ they have the idea of starting a business, but they don't take action.” followed by “they have not thought about starting a business”, which shows that students have the idea of starting a business, but few of them really take action<sup>[1]</sup>.

## **2.2 Serious Lag and Lack of Science in Innovation and Entrepreneurship Education**

Due to the lack of the leading role of innovation and entrepreneurship education, many colleges and universities fail to fully integrate innovation and entrepreneurship education with social needs and economic development, which finally leads to the relative lag of the enabling economic development of college students' innovation and entrepreneurship education under the strategy of “mass entrepreneurship, mass innovation”. Meanwhile, teachers engaged in innovation education often lack practical experience and unique frontier knowledge and opinions on innovation and entrepreneurship teaching, which directly leads to a great difference with the original intention of the society to expect college students to start a new career in emerging industries and high-tech fields<sup>[2]</sup>.

## **3. Opening Up the New Era of “Internet + Innovation and Entrepreneurship” in the Era of Big Data**

In the era of big data, the information mined from data association and the deep meaning of “big data” is called “big data resources” by summarizing and analyzing all kinds of data.

### **3.1 Data Convenience of “Internet + Innovation and Entrepreneurship” in the Era of Big Data**

During teaching reform of “Internet + innovation and entrepreneurship”, big data has realized data analysis, mining and visualization of university education data to understand the actual needs of college students' personal development, broken the shortcomings of slow updating and obsolete content in traditional classroom education, and also realized the individualized innovation and entrepreneurship education for college students, and finally provided the data convenience of college students' innovation and entrepreneurship. The opening, sharing, mining and application of data can not only promote economic development and benefit the society, but also drive the transformation of various fields of the real economy<sup>[3]</sup>.

### **3.2 Direction Leading of “Internet + Innovation and Entrepreneurship” in the Era of Big Data**

Big data technology has built a scientific data base for innovation and entrepreneurship, and has achieved the reference for university students in the direction of innovation and entrepreneurship, and meanwhile has also provided an important support for incubating innovation and entrepreneurship projects<sup>[4]</sup>. In the process of innovation and entrepreneurship activities, the spontaneous data constitute a scientific innovation and entrepreneurship basic data system, which is an original ecological data system. This original ecosystem can collect data indexes such as “social satisfaction degree of innovation and entrepreneurship education”, “participation degree of innovation and entrepreneurship teachers and students” and “innovation degree of innovation and entrepreneurship projects” in a

real-time, multi-dimensional and full coverage way, which provides direction leading for innovation and entrepreneurship education in colleges and universities.

#### **4. Path Upgrading of “Internet + Innovation and Entrepreneurship” Teaching Reform in the Era of Big Data**

In the era of big data, it is the key to success for college students' innovation and entrepreneurship to integrate organic the big data with “Internet + innovation and entrepreneurship”. Aiming at the defects of the existing college students' innovation and entrepreneurship education, this paper analyzes the relationship between big data and education of “Internet + innovation and entrepreneurship”, and proposes the path of upgrading “Internet + innovation and entrepreneurship” education from the perspective of big data.

##### **4.1 Learning Internet Thinking and Changing the Concept of Innovation and Entrepreneurship Education**

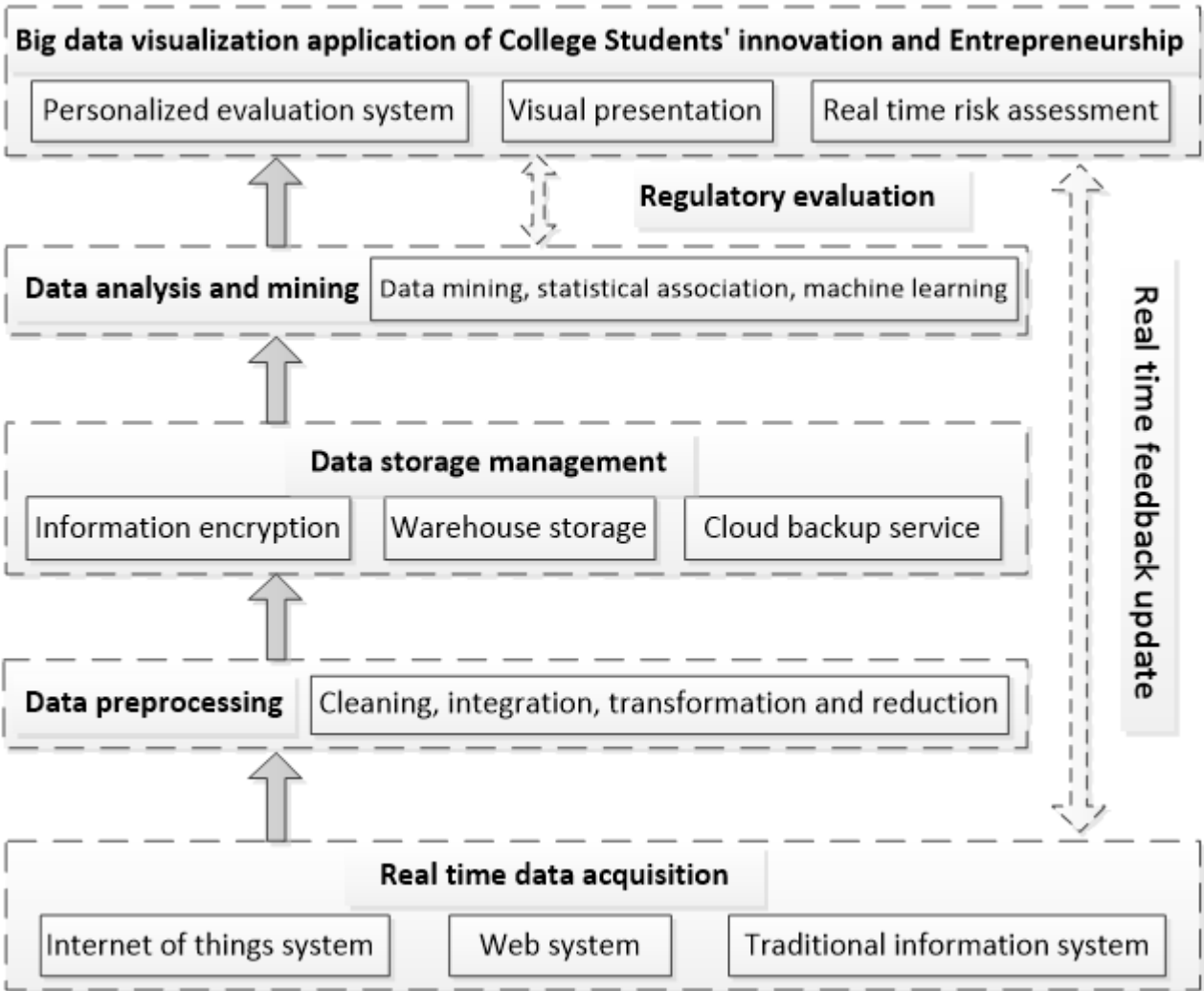
In the era of big data, we should organically integrate the concept of “data driven innovation and entrepreneurship”, characteristic professional knowledge and innovation and entrepreneurship practice cases, deeply excavate and analyze the knowledge blind area in the process of innovation and entrepreneurship of college students, so as to answer questions and solve doubts. Meanwhile, in the teaching process of “Internet + innovation and entrepreneurship”, we can make full use of the convenience of Internet “all things” to implement the online teaching column and offline teaching seminars, so as to promote the participation of university teachers and students in the discussion of innovation and entrepreneurship, and ultimately to better promote the enthusiasm of university students in participating in innovation and entrepreneurship.

##### **4.2 Integrating Internet Resources and Building a Platform for Innovation and Entrepreneurship**

The biggest advantage of “Internet + innovation and entrepreneurship” in the big data era is that it is massive innovation and entrepreneurship data resources. Universities should integrate various advantages of data resources, and real-time service students' innovation and entrepreneurship needs. At the same time, the innovation and entrepreneurship education of college students should go out of the ivory tower, and establish the innovation and entrepreneurship service platform of “innovation first”, “symbiosis win-win” and “cross-border integration” with the attitude of sharing and opening, so as to provide platform support for resource sharing and interaction between teachers and students.

##### **4.3 Building a Real-Time Evaluation System of College Students' Innovation and Entrepreneurship**

In the era of big data, colleges and universities should first analyze each data from the perspective of the overall situation, then comprehensively consider the relationship between various factors in practice, and finally establish a scientific and comprehensive real-time evaluation system of college students' innovation and entrepreneurship based on data mining (as shown in Figure 1).



*Fig.1 Real Time Evaluation System of Innovation and Entrepreneurship*

First, we should collect college students' innovation and entrepreneurship information through multiple channels to ensure the integrity and diversity of “college students' innovation and entrepreneurship big data”. Second, the university students' innovation and entrepreneurship input-output database is established to effectively store and efficiently manage big data, which lays the foundation for subsequent data mining, data service and data application. Third, we can predict different types of college students' innovation and entrepreneurship data and introduce new data streams by data mining, statistical association and machine learning, so as to understand the future innovation and entrepreneurship information.

## 5. Conclusion

Under the background of big data development, We should establish the education concept of “Data-Driven innovation and entrepreneurship”, integrate the innovation and entrepreneurship work platform, and build a real-time evaluation system of college students' innovation and entrepreneurship

education by integrating the convenience of “Internet +”. The follow-up study will focus on the specific realization and deep integration of big data technology and “Internet + innovation and entrepreneurship” education.

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