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Strategies for the Cultivation of Innovative Talents (COIT) in Private Colleges and Universities Based on Big Data Analysis

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Abstract: With the rapid development of computer technology, the era of information technology has come. So in the current era, many new technologies have been proposed. Among them, there are three popular technologies in recent years: big data (BD), artificial intelligence, cloud computing. Because we want to study the research on the innovative talent training strategy of private colleges and universities, so this paper finally chose to use BD analysis method to study the innovative talent training program of private colleges and universities. This paper, after reviewing the research measures on the COIT and other measures on the COIT in domestic private colleges and universities in recent years, and the measures of various kinds of talents training in major universities, the data results are derived from the mixed frog jumping algorithm to extract the relevant data and conduct a comprehensive analysis of linear coupling. Experimental results show that the method of BD analysis can better draw a research path on the COIT in private colleges and universities.

1. Introduction

The application and development of BD technology drive and promote the transformation of information technology. With its wide penetration and affinity, BD technology affects the world economic and social development in all aspects. In the 21st century, human life will be more closely related to the Internet [1]. However, various problems also arise. For example, there are many threats and attacks in the Internet, which destroy the network security, cause information leakage in light cases, and attack the system platform and network resources in heavy cases [2]. Therefore, the complexity of complex networks and software is comprehensively studied based on BD technology.

How to ensure that information is sent and received efficiently and accurately has become a research hotspot [3].

At present, the most common way to solve the problem of BD technology is to adopt firewall technology. The construction of firewall technology is necessary [4]. Generally speaking, firewall is a system or a group of systems, which implements certain security policies between intranet and extranet [5]. In fact, it is an isolation technology. An effective firewall should ensure that all data flowing into or to the Internet will pass through the firewall, and all information flowing through the firewall should be checked. A key point can be defined through the firewall to prevent foreign intrusion; Using firewall to protect BD technology, make it avoid being attacked to a certain extent and protect the security of BD resources is a popular technology and means at present[6].

In the current context of the times, the country is very concerned about the cultivation of talents, and the COIT is the most important [7]. Because with the development of modern science and technology, all kinds of new technologies emerge in endlessly, but in each era, the people who have the ultimate impact on the times are those leading figures, so the country is vigorously cultivating innovative talents. Because innovation is the main productivity and driving force of scientific and Technological Development in the current era, only innovation can guarantee the continuous vitality of a field [8]. At present, there are many outstanding figures in various fields in our country, but there are not many talents who can make innovative breakthroughs. Moreover, in the past, the main task of private colleges and universities was to absorb general talents as development and training objects, and then transport them to the society through general training strategies. But in recent years, private colleges and universities began to gradually move towards an innovative talent training Road [9]. Because of the difference between private colleges and public colleges, the path of innovative talents training in private colleges is also different from that in public colleges. We need to prepare a lot of work in order to copy the innovative talent training scheme of public colleges and universities in private colleges and universities. Therefore, the purpose of this paper is to use BD analysis method to study the innovative talent training scheme of private colleges and universities [10].

2. Mixed Frog Jump Algorithm

Target function:

$$\min F = \sum_{i=1}^{a} l_{1i} S_{1i} \sum_{i=1}^{a} \left[\sum_{j=1}^{b} l_{2,i,j} S_{2,i,j}\right] + 2ab \sum_{x=1}^{c} l_{3x} S_{3x} + 2abd\left(l_{4,1} + l_{4,2}\right) S_4 \quad (1)$$

$$l_{1i} = l \quad l_{11} = 0.5 l_{1i} \quad \sum_{x=1}^{c} l_{3x} = 0.5 l_{1i} \quad i = 2,3,\ldots,a \quad (2)$$

$$l_{2,i,j} = l' \quad l_{2,i,1} = 0.5 l_{2,i,j} = 0.5 l' \quad i = 1,2,3,\ldots,a \quad j = 2,3,\ldots,b \quad (3)$$

$$l_{4,1} + l_{4,2} = l' \quad l_{4,1} = n_1 l_4{}' \quad l_{4,2} = n_2 l_4{}' \quad (4)$$

Type: F for the total investment of the pipe network (yuan); a, b and c are the total number of dry pipe segments, the total number of dry pipe segments, the total number of branch segments; l1i is the length of paragraph I of the dry tube (m); l2, i, j is the length of paragraph j of the section i sub-tube (m); S1,j is the unit price of the pipe in paragraph i of the dry pipe (yuan/m); S2,i,j is the unit price of the pipeline in paragraph j of the i-branch pipe (yuan/m); l3x is the length of paragraph x of the branch (m); S3x is the unit price (D/m) of the pipeline in paragraph x of the branch; S4 is the unit price of the tube (yuan/m); l, l' are the length of each section of the dry pipe and the dry pipe (m); d The number of tubes on 1 branch; l4, 1,l4, 2 are the length of a pair of woolles (m) on

both sides of the branch; l4′ for the waterer spacing (m); n1 andn2 are the number of waterers on a pair of wool pipes on the two sides of the branch.

3. Experiment Build

3.1. The Selection Processing of the Experiment

Because the main research object of this paper is private colleges and universities, and the main method used is BD analysis method, so we choose to use the city′ s two private colleges and universities as the main experimental object. With the approval of the leaders of the two schools concerned, we conducted the experiment by randomly selecting four classes from two universities as subjects.

3.2. Implementation of the Experiment

Because of the complexity of the things considered in this experiment, we experimented with the exclusion of most of the relevant interference factors. Because at present, there are few examples of innovative talent training programs in private colleges and universities based on the use of BD analysis methods. So, we set up two experimental classes and two control classes in two universities, and use different training methods to get the relevant training programs. Then through experiments to get their innovative thinking and hands-on ability into the actual patent or paper and other independent research to judge the final results.

4. Evaluation Results

4.1. Experimental Results

Table 1. A comparative analysis of data between the two school control groups and the experimental group

	Number of innovations/pieces	Actual conversion benefits / 10,000 yuan
Control 1	13	64
Control 2	15	112
Experiment 1	21	131
Experiment 2	20	297

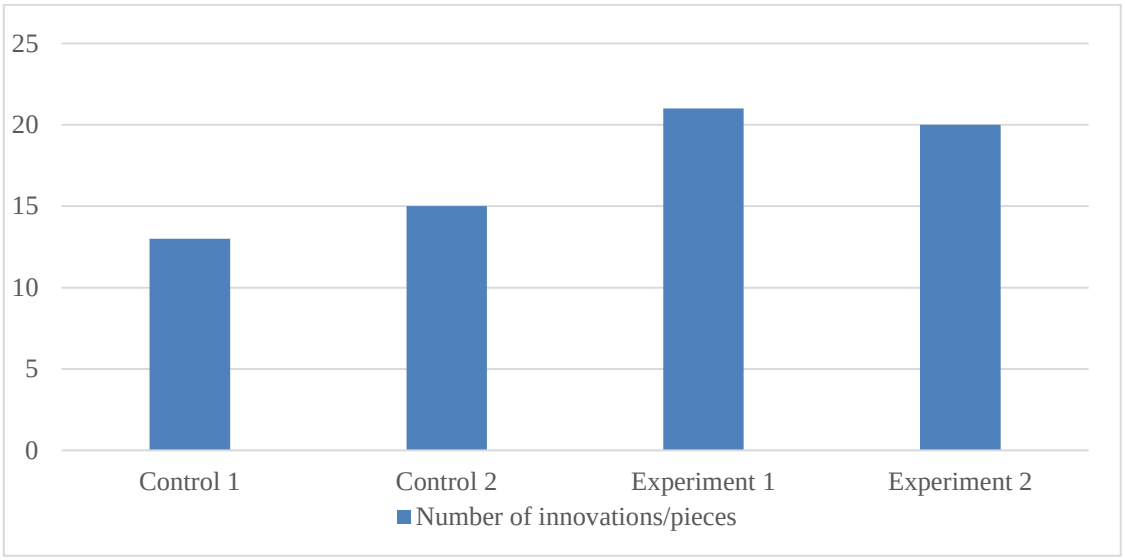

Figure 1. Compares the number of innovations between the control groups of the two schools and the experimental groups

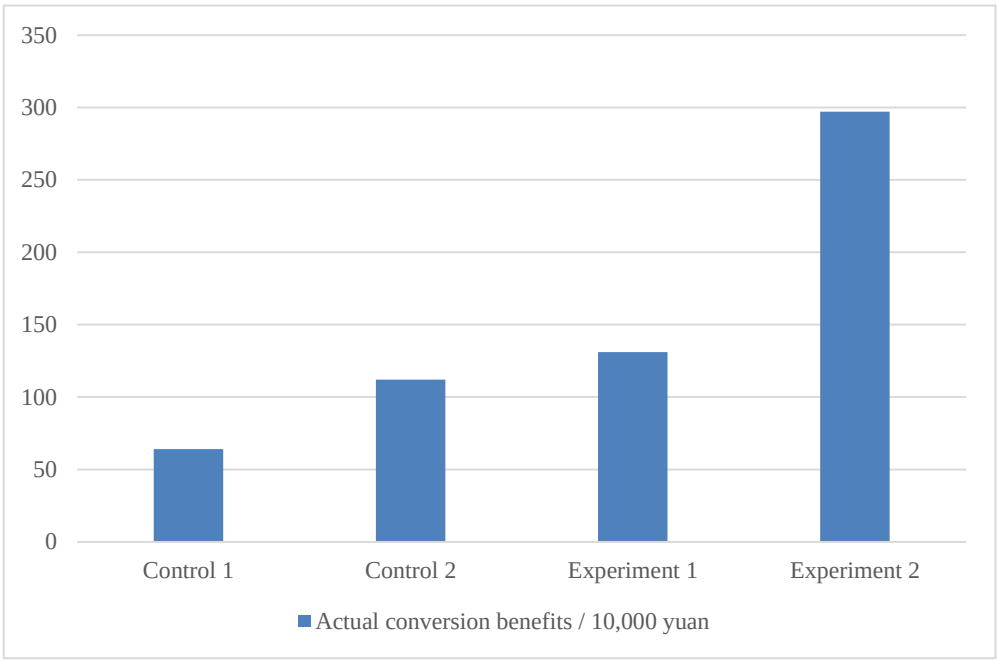

Figure 2. About the actual economic benefits of the innovations of the control groups of the two schools and the experimental groups

According to the results of Table 1 and Figure 1, Figure 2, it can be found that the new methods derived from the BD analysis methods are better than the COIT in private colleges and universities. We can see from the number of innovations and actual conversion benefits that the total number of innovations in the experimental group 1,2 is 13 more than the total number of innovations in the control group 1,2, which is equivalent to a 50% increase in the total number of results in the entire control group, and their actual economic transformation efficiency is not the same. In particular, the actual conversion efficiency of the experimental group 2 is similar to that of the control group 1, 2

and the economic transformation efficiency of the experimental group 1. Therefore, we can learn that the use of BD analysis methods more private colleges and universities innovative talent training programs are still some use.

4.2. Innovative Talent Development

The COI talents is an unshirkable historical responsibility of colleges and universities. Colleges and universities play an important role in transporting talents to the society The talent training system is mainly defined from five aspects: the subject, object, content, path and evaluation of talent training. Under the guidance of educational concept, a certain training subject sets the goal of talent training, and the general name of reasonable organization form and operation mechanism adopted for systematic, scientific and reasonable institutional arrangement, evaluation and incentive. The talent training system can be regarded as a complete system, in which there are multiple subsystems, and each subsystem has its own direction and goal, as well as its own specific organizational form, so as to realize the unique training function of the system. The talent training system scientifically and comprehensively summarizes the whole process of talent training from five aspects: training subject, training object, training content, training path and training evaluation.

In the process of education and teaching, colleges and universities should pay attention to the comprehensive cultivation of students′ personal quality and the all-round cultivation of students, and be good at excavating the characteristics of each student so that each student can realize his personal value. Talent training system is not only affected by its system and external environment, but also contains a large number of subsystems and interacts with Zhi. Therefore, when studying the innovative talent training system, we must use the systematic concept to establish the overall outline, and investigate the interaction and mode between many elements in the innovative talent training system and the external world as a whole. The innovative talent training system should serve learning and learners.

4.3. BD Analytics

BD and cloud computing are complementary and inseparable. BD processing requires cloud computing as a supporting platform, and the values and laws covered by BD can better integrate cloud computing with industry applications and play a greater role. From another perspective, cloud computing takes computing resources as services to support the processing of BD, which provides the value information needed for real-time interactive massive data query and analysis in cloud services. In addition, the parallel computing model provides an effective parallel algorithm for BD. According to this algorithm, BD can be distributed and deployed on cloud computing nodes. A reasonable parallel computing model can not only speed up the processing speed of cloud computing for BD, but also improve the utilization rate of cloud resources.

Cloud computing is a way to quickly allocate and share resources from cloud computing to service providers at any time, so that it can quickly and interactively reduce the workload of resources required by users. When a BD application is submitted to the cloud computing center, firstly, the cloud center will divide the application into multiple parallel subtasks according to the distributed algorithm of the parallel computing model, and then these subtasks are processed concurrently on multiple cloud computing nodes. In the actual environment, each large data application has its inherent data flow, and each parallel computing model can only deal with one kind of application efficiently. Therefore, each BD application will only choose an applicable parallel computing model.

BD analysis has the characteristics of large amount of data, many kinds and fast processing speed. It is very important to analyze and extract valuable information from these data quickly and accurately. However, the traditional database processing can not meet the time and processing requirements of massive data processing, so a platform that can process BD quickly and accurately is needed. Large scale data analysis is oriented to the whole data set, so it is still very difficult to carry out correlation analysis and processing efficiently. In order to quickly calculate the correlation of BD, it is necessary to explore the overall splitting and fusion strategy of data set. In this " divide and rule " strategy, how to effectively maintain the overall correlation has become a key problem that must be solved in large-scale data correlation analysis. BD analysis has gradually developed from single internal data to multi-source internal data and multi-source internal and external data. The development stage of application depth is divided into data supporting decision-making, data integrating into production system and data driving enterprise development. The technical intensity has gradually evolved from presentation and descriptive analysis to predictive and decision-making analysis. Due to the continuous proliferation of data, data security has become an issue of concern to everyone. It is very important to protect our own information security. In the future, data analysis technology will become the ecosystem of the Internet of things and network information society, and improve the quality of modern life.

5. Conclusion

In summary, with the development of the whole era, we learn through experiments that it is an effective way to cultivate innovative talents in private colleges and universities through BD analysis technology. But the experiments we′ ve done are just a taste of what′ s really going on along the way. We can only do this through simple experiments and using surface data to make a different comparison than traditional methods. However, deviations may occur in the actual implementation process, so we recommend a few more experiments to get a better method. This paper, due to funding and other issues, has been put on hold in this regard, hoping to use more good methods and other technologies in the future to private colleges and universities for entrepreneurial talent training research programs.

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Data Availability

Data sharing is not applicable to this article as no new data were created or analysed in this study.

Conflict of Interest

The author states that this article has no conflict of interest.

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