

Practical Education Mode of Ideology in Colleges and Universities Based on Cloud Computing and Its Value Analysis

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Abstract

Ideology plays a very important role in the overall education content of colleges and universities. The practical education mode of Ideology in Colleges and universities can change various problems existing in the traditional Ideology mode, make the Ideology in Colleges and universities get better education effect, apply various theoretical contents of Ideology to the practice process, and make the Ideology have higher practical value, So as to effectively improve the value orientation and ideological and political level of college students. With the popularization of network application and the development of network technology, especially the popularization of the mainstream “cloud computing mode” of network application, it has a profound impact on all fields of today's society. As a place with the densest talents and the fastest application and development of network information technology, the Ideology in colleges and universities will inevitably be impacted by the network, which will profoundly change the environment, subject, object and process of Ideology in colleges and universities.

Keywords: *Cloud computing, Colleges and universities, Ideology, Practical education model*

I . Introduction

The party and the state have always attached great importance to the Ideology of college students, and have continuously strengthened and improved the Ideology of college students through the introduction of relevant documents and policies [1]. The improvement of people's ideological and moral quality is a complex process, a process of the coordinated development of informed behavior, in which “action” is the key. However, the current Ideology in colleges and universities generally has the problem of insufficient practical education. It makes some The separation of theory and practice of college students, and the disconnection between knowledge and practice, greatly affects the effectiveness of Ideology. As an important base for talent training, universities undertake the important task of Ideology for college students [2]. The content of Ideology in Colleges and universities includes the education of students' world outlook, outlook on life, political outlook and moral outlook. Practical activities are the only way for people to form a scientific world outlook, outlook on life, political outlook and moral outlook, and play an extremely important role in cultivating the ideological and moral character of the educated [3]. However, in the process of Ideology in Colleges and universities, on the one hand, there are problems of emphasizing theory over practice, knowledge teaching over ability training. On the other hand, there are various ways of practical education, but the pertinence is not strong. To a certain extent, this will lead to the disunity of students' knowledge and practice, the separation of theory and practice, and directly affect the realization and strengthening of the effect of Ideology in Colleges and universities [4]. Through the application of practical education mode in practical teaching, the problem of lack of practicality in ideological education and learning of college students can be optimized, and the level of moral education of college students can be improved [5]. The educational idea should be people-oriented, and the education department has created a practical teaching mode of Ideology in order to truly make Ideology in colleges and universities people-oriented [6]. The essence of practical education is to make the abstract theoretical knowledge learned by students “live”, and to further enhance students' learning achievements. With the development of information technology, our society is entering the era of “cloud computing”. Information technology and communication methods The tremendous progress not only affects people's ideology, lifestyle, and educational methods, but also puts forward higher requirements for Ideology in this particular period of social transformation [7]. There are at least 100 concepts of cloud computing. Wiki defines

it as: cloud computing is a computing mode that provides dynamic and scalable virtualization resources through the Internet in the form of services [8]. Professor Liu Peng, deputy director and Secretary General of China Cloud Computing expert advisory committee, defines it as: “cloud computing is to provide scalable and cheap distributed computing capacity through the network.” However, no matter what the definition is, in practical application, cloud computing has the characteristics of resource pool, low cost, sharing, reliability, agility, expandability, virtualization, spanning the boundaries of time and space, massive information and so on [9].

II. Practical Education Mode of Ideology in Colleges and Universities

A. Brief Analysis of Practical Education Mode of Ideology in Colleges and Universities

The practical education mode of Ideology in colleges and universities is a new education mode which integrates school education, social education and self-education. The practical education mode of Ideology in colleges and universities relies on the design of “three plates” and takes “three cooperations” as the concrete operation means, and the ultimate goal is to realize “three regressions”, that is, “one body and three sides” practical education mode, as shown in Figure 1.



Fig.1 “One-in-One Three-Sided” Practical Education Model Diagram

Ideology in colleges and universities aims to teach Chinese college students the necessary moral education and basic ideological education, so as to standardize the political understanding of college students and improve their ideological realm. In order to improve the quality of its education work, relevant Chinese education departments have proposed the direction of “big ideological and political” education reform. This reform method can realize the organic combination of the content of college students' moral education and social practice [10]. The practical education mode of Ideology in Colleges and universities can be realized by changing the traditional teaching mode of Ideology, combining basic ideological and political theory teaching, in-school practice and out of school practice. The theoretical curriculum content and the practical teaching in school are mainly based on the school itself, and the basic teaching work is completed. However, the practice teaching outside the school needs the cooperation between the school and relevant social practice units [11]. Through practice teaching, the ideological and political knowledge learned by students in school can be put into practical application. This method, while improving the quality of education, can also make the school understand the students' ideological and political learning achievements [12]. Compared with ideological and political theory education in schools, the latter's education is more practical, which can correctly establish the values, political thoughts and moral norms of college students, and then provide key talents with more balanced ideological and political level and professional ability for China's economic and cultural construction. 从 In the manifestation of the social service functions of colleges and universities, we increasingly see that college education is a process of comprehensive education. Adhering to practice education is not only the need to strengthen and improve the Ideology of college students, but also the need to implement quality education and promote the overall development of college students. Breaking the limitations of the classroom and realizing the perfect connection between university and society, classroom and extracurricular, theory and practice, rationality and sensibility is an important guarantee for cultivating the comprehensive development of college students' quality headed by ideological and moral quality [13].

B. The Idea of Practical Education Mode of Ideology in Colleges and Universities

The construction of the practical education mode of Ideology in Colleges and universities is the requirement of the development of the times, the requirements of the law of education, the formation of the ideological and moral quality of human beings and the rule of the growth and development of college students, the requirements of the development of human nature, and the requirements of innovation of Ideology mode and the improvement of the effectiveness of Ideology in Colleges and universities. The construction of the practical education mode of Ideology in Colleges and universities has rich theoretical basis. The purpose of constructing practical education mode is to improve the effectiveness of Ideology and serve the goal of Ideology, so Ideology is the most basic basis for constructing practical education mode. On this basis, philosophy, pedagogy and psychology have different interpretations of the value and significance of practice in human development from different perspectives, which together constitute the theoretical basis for the construction of practical education mode. Relevant surveys show that more than 80% of college students advocate reforming moral education courses by reducing classroom lectures and increasing credits for practical activities. This shows that the combination of theory and practice, increasing practical teaching is what students need and like. However, in fact, this model, which conforms to the law of ideological and political teaching and is liked by college students, has not been taken seriously in many colleges and universities. The preliminary research work of the document issued in the “Opinions of the Central Committee of the Communist Party of China and the State Council on Further Strengthening and Improving the Ideological and Political Education of College Students” was asked in the questionnaire of Renmin University of China for students:

Table 1 the Main Teaching Methods Adopted in the “Two Courses” Teaching in Your School Are

Combination of classroom lectures and classroom discussions	41%	Lecture	12%
Combining classroom teaching with social practice	14%	Combination of classroom teaching and audio-visual teaching	17%
Combination of classroom teaching, discussion and multimedia teaching	6%	Other methods	15%

Thus it can be seen that classroom teaching has become the dominant form of theoretical teaching in a high proportion. Although there are some new methods similar to discussion, multimedia and audio-visual teaching, it is the fundamental phenomenon that they are limited in the classroom. Practice teaching has not become an organic complementary teaching method with theoretical teaching, so the educational value of practice teaching can not be highlighted and played.

The practical education mode of Ideology integrates all kinds of Ideology resources in colleges and universities scientifically and reasonably, which greatly expands the available teaching resources of Ideology in colleges and universities, enriches the teaching content of Ideology in colleges and universities, and makes the teaching content of Ideology in colleges and universities no longer limited to the content of teaching materials related to Ideology, but closely related to the daily real life of college students. At the same time, the practical education model greatly optimizes the educational environment of Ideology in colleges and universities, so that students can receive Ideology after entering the society, expand the time and space of Ideology in colleges, and make the content of Ideology in colleges more diversified. . Ideology in colleges and universities is completed through a variety of teaching methods such as on-campus club activities, campus ideological and political cultural environment construction, theoretical teaching work, on-campus and off-campus practical teaching, and students’ activities in the countryside. Because of the diversified development of its teaching, when many schools carry out their teaching work, there is no effective integration of teaching resources, resulting in the poor effect of its practical teaching. In the great ideological and political environment, the Ideology in Colleges and universities closely combines the theoretical teaching content with the practical teaching work. In this case, it can optimize the

integration of educational resources of Ideology in Colleges and universities.

III. The Practical Education Mode of Ideological and Political Education in Colleges and Universities Based on Cloud Computing and Its Value Analysis

A. College Ideological and Political Education Based on Cloud Computing

The use of cloud computing, first, can create a huge, expandable and unlimited resource pool. Second, cloud computing provides scalable and cheap distributed computing capabilities. Third, the resource pool can be shared by users who need it. Therefore, the application of cloud computing will avoid a lot of waste of resources and provide a reliable and convenient way for China to build an environment-friendly and economical society. The construction of Ideology practice base system in colleges and universities is also a part of China's social construction, and cloud computing technology should be adopted. With the continuous development and promotion of the cloud computing model, it has profoundly changed the environment, subject, object and education process of online Ideology in colleges and universities, and brought tremendous changes to the work of online Ideology in colleges and universities. It is conducive to improving the construction of hardware and software related to network Ideology and reducing costs. Conducive to the realization of the joint construction and sharing of Ideology resources. Conducive to enriching the mode of Ideology. It is conducive to students' independent learning and cultivates students' sense of innovation. Conducive to ideological and political educators to carry out scientific research and exchanges.

Cloud computing is the integration and development of distributed computing, Internet technology, large-scale resource management and other technologies. Its research and application is a system engineering, covering data center management, resource virtualization, massive data processing, computer security and other important issues, as shown in Figure 2.

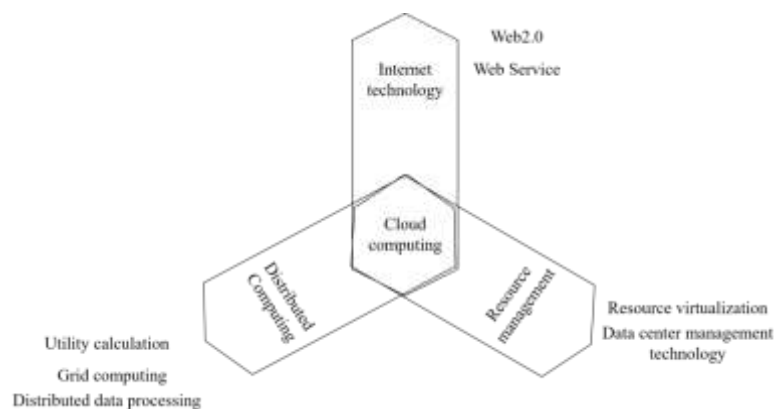


Fig.2 The Connection between Cloud Computing and Related Technologies

Cloud computing is a new thing, and people always need a process to accept new things. When contacting cloud computing services, college teachers and students may have some concerns, such as worrying about the loss and leakage of their data and information, because they are not well prepared for the development of cloud computing. For the classification 16 of cloud computing, according to the deployment mode of cloud computing, it can be divided into three categories: public cloud, private cloud and hybrid cloud, as shown in Figure 3. According to the type of service, it can be divided into infrastructure as a service (IaaS), platform as a service (PaaS), and software as a service (SaaS). Specific as shown in Figure 4.

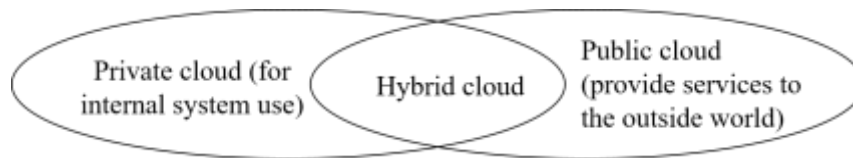


Fig.3 Cloud Computing Classification Diagram by Deployment Method

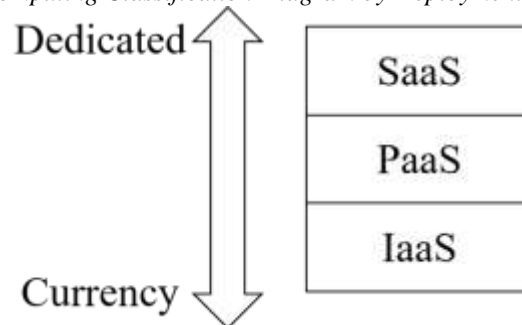


Fig.4 Cloud Computing Classification Diagram by Service Type

In practical work, they will have resistance to the use of cloud computing services, which will affect the wide promotion and full application of cloud computing services in Ideology in Colleges and universities. According to these situations, the party and government leaders in Colleges and universities should attach great importance to the construction of network Ideology, closely combine cloud computing with Ideology, and cultivate the awareness of using cloud computing services. This is the key to the Ideology of college students in the era of cloud computing, and also an important part of school teaching management. The development of cloud computing puts forward higher requirements for the comprehensive quality of ideological and political educators in colleges and universities, and establishing a high-quality Ideology team is the prerequisite for effectively carrying out Ideology under the cloud computing environment. Ideological and political educators should keep pace with the times, enhance their awareness of science and technology, and constantly strengthen their own learning to meet the needs of the development of the cloud computing era. Not only must have a solid theoretical knowledge of Ideology, but also have good organizational management and communication skills, but also have a certain knowledge of cloud computing, proficient in the use of computer and network technology, and consciously apply cloud computing to Ideology In this way, Ideology in colleges and universities keep up with the pace of information technology development.

B. Clustering Algorithm

Clustering analysis is a process of grouping the data sets of fabricated or physical data objects. Its purpose is to make the data sets of similar data objects. These data object groups generated in the process of cluster analysis are called clusters, which are a set of data objects. Objects in the same cluster have high similarity to each other, while objects in different clusters are different from each other. After cluster analysis, researchers can determine the dense and sparse range, and find out the overall framework and meaningful correlation between attributes. At present, many clustering analyses are based on dissimilarity matrix, but in some cases, the formation of data is described by data matrix, so the data matrix should be converted into dissimilarity matrix before using clustering algorithm.

The degree of dissimilarity (or similarity) between objects described by interval scale variables is usually measured by the distance between each group of objects. The most classic method of calculating distance is Euclidean distance. Researchers generalize its definition. for:

$$d(i, j) = \sqrt{|x_{i1} - x_{j1}|^2 + |x_{i2} - x_{j2}|^2 + \dots + |x_{in} - x_{jn}|^2} \quad (1)$$

In which $i = (x_{i1}, x_{i2}, \dots, x_{in})$ and $j = (x_{j1}, x_{j2}, \dots, x_{jn})$ are n-dimensional data objects. In addition, there is a very classic distance measurement method, which is Manhattan (or city block) distance, which is defined by researchers as follows:

$$d(i, j) = |x_{i1} - x_{j1}| + |x_{i2} - x_{j2}| + \dots + |x_{in} - x_{jn}| \quad (2)$$

Both Euclidean distance and Manhattan distance satisfy the following properties:

- (1) $d(i, j) \geq 0$: Both distances are non-negative values.
- (2) $d(i, i) = 0$: the distance between itself is 0.
- (3) $d(i, j) = d(j, i)$: the function between the two distances is symmetrical.
- (4) $d(i, j) \leq d(i, h) + d(h, j)$: the distance from object i to object j is less than or equal to the distance from other objects k to object j.

Minkowski distance is a generalization of the above two distances. The researchers summarized its definition as:

$$d(i, j) = \|x_i - x_j\|_p = \left(\sum_{k=1}^n |x_{ik} - x_{jk}|^p \right)^{\frac{1}{p}} \quad (3)$$

In which $p \in [1, \infty)$. This distance is a generalization of infinite distance metric. If p is 1, then d(i,j) is Manhattan distance; if p is 2, then d(i,j) is Euclidean distance.

IV. Conclusions

The University of Socialism shoulders the important responsibility of cultivating high-level talents for the country and cultivating qualified builders and reliable successors of the cause of socialism with Chinese characteristics. The party has always adhered to the educational policy of the all-round development of morality, intelligence, and physical fitness. In the words of Comrade Mao Zedong, it is to adhere to the dialectical unity of politics and business, red and professionalism, and to cultivate educated workers with socialist consciousness. In the words of Comrade Deng Xiaoping, It is to train new talents with ideals, morals, culture, and discipline with the "Four Haves". Among them, undoubtedly fully reflects the Ideology in the whole school education important position and role. Ideology has a direct impact on the mental health, moral norms, political thoughts and so on. It is a very important education work. I hope this paper can provide a new thinking direction for the development of the practical education mode of Ideology in Colleges and Universities under the vision of Chinese Ideology, and further improve the quality of China's overall education. Ideological and political educators should keep pace with the times, strengthen the consciousness of science and technology, constantly strengthen their own learning, and adapt to the needs of the development of cloud computing era. We should not only have a solid theoretical knowledge of Ideology, but also have good organizational management and communication skills. At the same

time, we should also have a certain knowledge of cloud computing, skillfully use computer and network technology, and consciously apply cloud computing to Ideology, so that Ideology in colleges and universities can keep up with the development of information technology. In short, the practice education model of Ideology in colleges and universities has a very important role. It can effectively integrate Ideology resources in colleges and universities, optimize the Ideology environment in colleges and universities, and enrich the teaching content of Ideology in colleges and universities. Therefore, colleges and universities should fully pay attention to the development needs of students when developing Ideology, clarify the teaching content of Ideology, improve the teaching methods of Ideology, and cultivate more talents with correct value orientation for the society.

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