An Investigation of the Status and Strategy of College Education Resources Sharing in the Big Data Environment and Countermeasures

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Abstract

With the application of big data in the field of education, information technology has made it easier to share educational resources. This article studies the current situation of the sharing of educational resources in higher education institutions. First of all, it elaborates on the concept and characteristics of education big data, conducts research on the status quo of college education resources sharing under the big data environment, analyzes the existing problems, and finally provides some suggestions on the sharing of college education resources in the context of big data for current status surveys.

1. Introduction

1.1. General Background

With the rapid development of mobile internet, big data, cloud computing, and social networking technologies, new forms of education are constantly being updated. In the age of big data, information education technology has made it possible to share quality education resources, and education is taking place and has more changes. Big data will make our colleges and universities' teaching model personalized, informative, and networked. Therefore, in the context of using internet big data, we will establish a shared platform model for educational information resources between universities and colleges, and we can gradually achieve educational equity in different regions. We should solve the differences

in education information resources between different regions in the central and western regions, between different universities, and optimize the sharing model of education and teaching information resources, so as to realize and gradually establish a platform model for the sharing of educational resources in colleges and universities.

1.2. Concepts and Features of Big Data

The concept of big data refers to the beginning of the computer technology revolution. Alvin Toloff predicted that the emergence of big data will inject new vitality into the innovation of information technology. Big Data, refers to the huge amount of data storage involved, and there is no way to use the current major software tools to search, and store data in a certain period of time. Big data has the following characteristics: Large volume, Variety, Velocity, and Value. Therefore, in the era of big data, people gain knowledge, improve their understanding of big data, and create a source of information value.

1.3. An Investigation of the Status of College Education Resources Sharing in the Big Data Environment

With the advent of the era of big data, new advanced educational information technology has made it possible to share resources between universities and education field. However, it also provides new opportunities for the sharing of educational resources and the transformation of educational models and challenges. In order to have a comprehensive understanding of the status quo of the sharing of educational resources in China's colleges and universities, so as to reflect the shared form as much as possible, this study selected 40 higher education institutes (including some private colleges and universities) in Sichuan, Shanxi, Anhui, Shandong, Hebei, Heilongjiang, Hainan, Henan, Liaoning, Yunnan, Guizhou, Qinghai, Gansu, Jiangxi, Jilin as well and Beijing, Chongqing and Shanghai, which are totally 18 regions. The full time teachers, administrators, school service personnel and students[1] in these universities and colleges were surveyed by means of paper-based questionnaires, online questionnaires and interviews. 500 questionnaires were distributed among them. A total of 400 feedback questionnaires were sent out, and 367 valid questionnaires were found. These questionnaires fully reflect the sharing of educational resources in China's colleges and universities and can meet the needs of the research.

In the course of the questionnaire survey, many people think that the sharing of educational resources refers to the sharing of books, information, teachers and other resources with different universities and colleges[2], which is a manifestation of cooperation, openness, fairness, complementarity and common im-

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[1]The ratio of college students to faculty members is about 1:1, and the ratio of full-time teachers to faculty members is more than half; the ratio of male to female students is 1:1.4.

[2]He selected colleges and universities are mainly divided into three categories: comprehensive colleges and universities; professional advantage disciplines of colleges and universities; private colleges and universities. And the institutions mainly refer to universities and colleges.

provement. In addition, there are also a few people mentioned that the sharing of educational resources in colleges and universities also includes the sharing of campus, from which it is not difficult to see that people pay more attention to the sharing between colleges and universities, which also reflects people's greater demand and expectations for the sharing of educational resources between colleges and universities.

The sharing of educational resources in colleges and universities, there are three general attitudes: First, a positive attitude. As many as 90.38% of the people hold this attitude. They think that the sharing of resources for college education is a good opportunity and should be encouraged. The second is neutral attitude. Those who hold such an attitude affirm the role played by sharing, but they also propose that it is very difficult for sharing to be fully realized in practice. For example, colleges and universities all must have their own characteristics. Different from other universities, it is not something that can be shared. This must be based on good conditions, and it can only be achieved through constant efforts by everyone. The third is to look at the situation. They believe that sharing should be based on actual conditions, and the sharing of powerful universities should be encouraged so that they can make up for deficiencies and improve progress together. The sharing of powerful universities and weak universities can make them stronger. It is also a good choice for strong colleges and universities to promote the rapid advancement and improvement of weak colleges and universities; and the sharing of power between relatively weak universities will not play a significant role in promoting both sides.

In general, people are more in favor of the sharing of educational resources in colleges and universities and believe that such sharing can promote the development of colleges and universities and even higher education. However, there are many problems in the process of practice and it is difficult to implement them. This is also the study. One of the important issues is to be solved.

2. An Analysis of the Problem of Sharing Educational Information Resources in Colleges and Universities in China in the Big Data

2.1. The Effect of Sharing Educational Resources between Colleges and Universities in China Is Not Obvious

Nowadays, the sharing of educational resources in our country is mainly reflected in the sharing within the school, and the sharing between the universities is rather lacking. In fact, the sharing of educational resources within universities has always existed around us. For example, they shared the same teaching building in class, shared the same canteen when they were eating, and shared the same playing field when they were exercising. These are all part of our lives, so it is not easy to perceive these as a manifestation of resource sharing. Of course, these are relatively "low-end" sharing, but the "high-end" sharing within the universities in our country is actually not many, and most of them are still look-

ing at each other. For example, if the school's student department and the educational department can share information through information data, the Student Affairs Office will save a lot of time for the Academic Affairs Office to collect student information, and the work efficiency will increase accordingly. Just the opposite; some schools did not share the excellent courses and practical training and information resources sharing platforms in the school. As a result, the sharing effect between colleges and universities was even more unsatisfactory.

To some extent, sharing behavior tends to occur in colleges with close or similar types. The sharing of educational resources among universities in China tends to be among the same type of colleges and universities, and it is rarely realized among different types of universities. Under such circumstances, due to the proximity of shared colleges and universities, their expertise and weak professional abilities are similar. This makes it impossible for their relatively disadvantaged disciplines to be substantially enhanced in the sharing process.

2.2. Sharing Lacks Normative and Institutionalized

At present, the sharing of educational resources in China's colleges and universities is basically relying on some of their own personal relationships to obtain the self-distribution of resources rather than a certain degree of normativeness and institutionalization. In order to obtain the necessary resources, teachers rely on their own interpersonal communication and academic status. Ordinary students do so by asking for help from classmates or mentors. Some experts come to the school to give lectures. This also places a great emphasis on personal relationships, so students in some colleges and universities rarely heard of reports. At present, the sharing of library resources is a model of normative and institutionalized sharing behavior. Nowadays, universities and colleges all attach great importance to the construction of library resources and basically achieve the sharing of library resources. However, they are limited to sharing and use in schools and have not achieved good results among universities. The database platform between schools cannot with good compatibility, it is very difficult for off-camp personnel to directly access the library resources of the school. These are obstacles to the realization of the sharing of inter-school educational resources. From such a status quo we can see that access to resources lacks a public and normative approach. Personal relations severely limit people's access to resources. There are many unknown factors in this kind of sharing based on personal relationships.

In order to establish some normative resource-sharing approaches, university towns, colleges and universities, etc. were established, but they did not achieve the expected results. The so-called university city also simply gathered many universities in one area, but the door to information resources sharing has never really opened; the "application-oriented undergraduate league in Anhui Province", "nine-school alliance", and "Chongqing city" have been established. "College Union", "Beijing Gaoke University Alliance", etc., although they have dif-

ferent forms, they all hope to achieve common development through resource sharing. Due to the relatively short establishment time, there are still some imperfections in the sharing of information resources. For example, the alliance between universities and colleges and universities does not establish relatively sound professional websites, which limits the exchange and sharing of resources between universities; many universities do not have sound rules and regulations for sharing, making sharing difficult to develop.

2.3. Relationship Restricts Students' Participation in Resource Sharing

As the results of the questionnaire survey[3], both on-campus and off-campus sharing have the characteristics of teachers participating in sharing and students participating in sharing less. This is all related to the fact that the current sharing of education resources in China mainly depends on personal relations. Relatively speaking, teachers can obtain resources easily through their extensive interpersonal relationships and relatively high academic status, and students do not have such conditions in this regard, so it is very difficult for them to obtain the necessary resources. In addition, the general students mainly participate in the sharing of some academic exchange activities and literature data information platforms, and there are few activities to participate in resource sharing.

It is not difficult to see that due to restrictions on sharing methods and approaches, most of the college students have access to shared information resources that can be obtained through the platform. There are few channels for obtaining resources, which greatly weakens the enthusiasm of students and enables students to acquire knowledge. There are few ways to go and it is not conducive to the training of talents. It is therefore necessary to create conditions for more students to obtain quality resources.

2.4. Sharing between Universities Is Basically "Low-Class" and Lacks "High-Class" Sharing

In general, the level and level of educational resources sharing in our universities are far from enough. All the colleges and universities share some resources with low value. Few colleges and universities are willing to share their core things with other colleges and universities. For example, although Sichuan University boasts a number of university cities such as Longquan Sunshine University Town, Wenjiang University City, and Ganyu County United University City, colleges and universities are relatively rich in resources, and the geographical location of universities is also very close, but in reality they are only geographically separated. Recently, there is no substantive contact and cooperation in other areas [1] some science and engineering colleges even though they have set up alternative courses, they have not put out their own dominant disciplines. Stu-

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[3]The sharing of educational resources in colleges and universities can be roughly divided into three kinds: one is affirmative attitude. Those who hold this attitude are as high as 90.38%, two are neutral and 5.21%, and depend on situation are 4.41%.

dents generally report that they have not learned anything and exaggerated. The only thing that can only be shared in a university town is the "Metro card" in the cafeteria [2]. Under such actual circumstances, the effect of resource sharing between universities is far from reaching our expectations.

3. The Strategy of Realizing the Sharing of University Education Information Resources in the Era of Big Data

3.1. Fundamentally Understand the Meaning of Sharing and Change Concepts

In particular, the leadership groups of universities should fundamentally understand the connotation of sharing of educational resources in universities and fully realize the benefits and significance of the sharing of digital resources, multimedia resources, and subject resources, and establish the concept of sharing educational resources among universities so that We can truly cooperate and communicate with each other and obtain resources that are conducive to our own development. This will not only save money, but also increase the efficiency of use, and will have a profound impact on the development of China's education. At the same time, colleges and universities should transform their concepts and clearly recognize the unity of opposites between sharing and competition: competition cannot be avoided, but moderate and benign competition is conducive to the sharing of resources among universities. Establishing educational resource sharing in colleges and universities in the context of big data avoids the repeated construction of educational resources in colleges and universities and is conducive to the common development of universities.

3.2. The Government Takes the Lead in Coordinating and Coordinating the Construction and Use of Educational Information Resources. The Government Must Provide Sufficient Support for the Sharing of Educational Resources in Colleges and Universities

An important way to promote the balanced development of education is to be able to achieve the sharing of quality educational resources. In the era of big data, educational resource banks should not be small-scale resources, but large databases of educational groups that can serve different levels and different fields. A library that maximizes educational resources [3] leading by the government or the competent department of education, overall arrangements for the construction and rational use of educational information resources will be made to market the educational resources and the government will be responsible for macro-control. In order to improve this system and achieve the desired results, we need to do at this stage: First, mobilize different forces in society to run schools, provide economic support for educational resources, reduce the pressure on the government to provide educational resources, and promote the diversification of school subjects. Satisfy all kinds of educational needs; Second, we must put an end to phenomena such as "sector ownership", realize the sharing of educational

resources in the real sense within and between schools, and form a sound competition and cooperation relationship among colleges and universities, so that educational information resources for all colleges and universities Public, take what you need, and develop together. Coordinate the use of educational information resources in order to coordinate the use of various departments to maximize the role of the library of educational resources.

3.3. Paying Attention to Resource Property Rights and Strengthening Mechanism Construction

The issue of property rights of educational resources is also one of the important factors that limit the sharing of educational resources in China. Unclear property rights will make public universities lose their binding force and vitality. Therefore, we must: establish relevant mechanisms for the property rights of resources and constantly improve them to protect all rights of resources and create favorable conditions for sharing.

The main measures to improve the system to ensure the sharing of educational resources are as follows: Firstly, the information on the investment sources of educational resources should be sorted out to make a distinction; for the resources that can be shared, it is necessary to distinguish whether the source of investment is the government or the market. It is also the state to achieve resource sharing in accordance with the shared conditions. Secondly, to establish relevant mechanisms for paid sharing and to continuously improve. Thirdly, to establish a mechanism of monitoring and evaluation.

3.4. Establishing a Large Education Database and Resource Sharing Platform

The construction of a large-scale educational resource database and the establishment of a large education database and an educational information resource sharing platform are important parts of promoting the sharing of resources in universities. If information resources and service resources between universities and colleges are planned together, users can share resources. The platform can search the Internet or download the information it needs. At the same time, it can also share its own scientific research results or exchange experiences through this platform. The education big data and resource sharing platform is the future development of teaching and management in colleges and universities for networking, personalization and information. This is an amazing trend.

For example, large-scale online open curriculum (MOOC) and the construction of smart campus system: based on the existing mobile Internet technology, supported by cloud services and geographic location-based services, fully integrated with new service concepts such as SoLoMo, O2O, with the open sharing of campus physical resources as the core, covering teaching, scientific research, students Four application occasions, such as living and management, are to construct an intelligent campus management and service mode which is lively, orderly, convenient for teachers and students and leading scientific research.

In this way, the educational resources of universities and colleges can be integrated into one, and the differences in education among different regions and universities can be narrowed down to complement each other and build up high quality and reasonable network information resources.

3.5. Taking Advantage of Advanced Science and Technology to Carry Out Technological Innovations to Achieve the Sharing of Educational Resources in Colleges

To guarantee the investment in the computer, strive to make all the literature materials into electronic version, strengthen the construction of the data sharing network platform, continuously improve the compatibility of sharing the corresponding database and platform, and encourage the openness of university educational resources to the outside world. The university is divided into different regions, and a three-dimensional regional resource sharing management center is established that consists of three levels: provincial, municipal, and school-level. Cloud sharing can also provide digital services for teachers and students in Universities in the region. This way of resource sharing can not only make use of all kinds of scattered and heterogeneous computing equipment, network equipment and storage equipment purchased centrally in the past digital campus construction of colleges and universities in the area by cluster technology and virtualization technology, but also establish standardized and unified data standards and resources through cloud computing. Application system can better solve the integration of all kinds of high-quality educational resources among schools.

4. Conclusion

Through investigation and research, the following conclusions have been drawn: The level of education information resources sharing in China's colleges and universities is very low, and there are many problems: sharing too limited to the school, lack of appropriate systems and norms, students sharing behavior and opportunities being too few, sharing being lack of content and lack of value. Relevant countermeasures have been made with regard to the problems found: The thoughts and ideas for sharing educational information resources are deeply rooted in people's hearts, and they strive for the support of the government, establish a correspondingly perfect system, and establish a large education database and resource sharing platform, to gradually realize the aim of sharing resources between universities and colleges.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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