

Research on Big Data Teaching Model based on the Concept of Intelligent Education

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ABSTRACT. *With the development of economy, the era of big data has arrived. The big data has brought the huge influence to people in the application of social production and living, education as a cutting-edge industries. Based on the development of science and technology and Internet, wisdom education gradually become a pioneer in the field of education, injected fresh blood into education field for our country reform. This paper will analyze and discuss the application of smart education in the context of big data, aiming at better using big data to serve China's education reform and promoting the continuous development and progress of socialist education.*

KEYWORDS: *Big data; Wisdom education; Education reform*

1. Introduction

With the rapid development of Internet information technology, it has entered the era of knowledge and information explosion. The most important task of education is to promote the all-round development of people, and cultivate innovative talents with independent thinking, creative ability and international competitiveness. At the third session of the 12th National People's Congress on March 5, 2015, premier Li Keqiang proposed the "Internet plus" action plan for the first time in the government work report, advocating the deep integration of modern information technologies such as the Internet, big data and cloud computing with various industries, creating new development and promoting the rapid development of education informatization. "Education is an important way to improve the comprehensive quality of the people and promote the all-round development of the people. [1] Due to the development of information technology, it is necessary to promote the reform and innovation of education, build a network, digital, personalized and personalized education system, and establish a learning society that "everyone can learn, be able to learn everywhere, and be able to learn all the time". Entering a new era, general secretary Xi Jinping proposed to accelerate the building of an innovation-oriented

country, adhere to the new development concept of innovation, coordination, green, open and sharing, and build a smart society. China is a big country with a large population. To realize the great rejuvenation of the Chinese people, education must be given a very important and prominent position and play a leading role in education. Therefore, it is an important development task for colleges and universities in the new era to make full use of modern information technology to realize the promotion of education and step forward to higher wisdom education.

2. The necessity of the construction of intelligent education in colleges and universities under the network environment

In the new era, the main spear shield of the Chinese society has been transformed into a spear shield between the people's yearning for a better life and unbalanced and inadequate development. Many new situations and problems have emerged in the society, especially the relatively complex Internet environment in the Internet era, and many problems in the field of higher education that need urgent solutions. In his report to the 19th national congress of the communist party of China (CPC), general secretary Xi Jinping made clear the need to accelerate the building of an innovation-oriented country and accelerate the pace of building a smart society with modern science and technology. The strategy of network power is proposed, and the development of modern information technology such as big data, cloud computing and artificial intelligence and the development of wisdom education are mutually complementary and mutually beneficial. The superiority of social justice system can promote the development of intellectual education through the integration of information and resource allocation. [2]

(1) The inevitable requirement of accelerating the construction of an innovation-oriented country and a smart society

Innovation is the first driving force for development and the strategic support for the establishment of a modern economic system. "If education is flourishing, the country will prosper, and if education is strong, the country will be strong. The development level of higher education is an important symbol of a country's development level and potential. All countries in the world have done a good job in universities and training people to develop and strengthen their nations

The power of the war strategy." In the new era, education in high schools of our country is a combination of opportunities and challenges. The more challenges we face, the more we should be brave enough to meet the challenges and brave enough to ride the wind and waves, because this is the responsibility and responsibility of education in high schools. The horn of the new era has been blown, high school in the network environment to use their own resources advantage, talent advantage to vigorously carry out education reform, the development of wisdom education, training innovative talents, innovative team, in the new era to create a new type of country, wisdom society will take an important mission. World many countries have put forward education wisdom rises for national strategy, in the future the world is in leading position in the competition, our university's mission and responsibility is significant and difficult, to solve the problem in colleges and universities must keep

up with the tide of world higher education development, promote the education informatization, wisdom and upgrade to a higher level of education development, this is the new era of China's construction of the "double top" the inevitable choice of colleges and universities, and also speed up the construction of an innovative country, wisdom, the inevitable requirement of society. [3]

(2) The strategy of network power and the development of modern information technology provide favorable support

Xi Jinping proposed that China should transform itself from a big Internet country into a powerful Internet country and build a community of Shared future in cyberspace. These major strategies and concepts cannot be put forward without the common wisdom of people all over the world. The rapid development of modern information technology, such as big data, cloud computing and artificial intelligence, provides a good platform to show the wisdom of all mankind. In the open network environment, we can take advantage of the advantages to make up for the disadvantages and actively absorb the excellent achievements of human beings to develop ourselves. Also will open a door to the development of college education wisdom huge resources treasure, should make full use of modern information technology to achieve in this world each college education cooperation, college education resources to optimize configuration, the teachers troop of the best show on the whole, various colleges and universities use modern information technology will online resources unified assembly in the cloud platform system of intellectual education, opening up all kinds of education resources share, This is the direction in which intellectual education requires effort. Intellectual education of colleges and universities must adhere to the concept of student-centered, the event according to students real situation should provide for the he teach education information, resources, using intelligent terminal equipment to let the students get can be in any time, any place they want to get the information, capacity, also can to the interaction, feedback and evaluation, can do some daily online learning activity, it is wise hui teach) to achieve the goals.

3. Construction of intelligent education cloud platform based on big data environment

(1) Overall framework of smart education cloud platform

Platform layer products, data layer products and standard specifications are the three core structures for building smart education cloud platform.

First of all, the core of the smart education cloud platform is composed of data layer products. [4] By integrating all data, a brand-new product is created to provide services for users. Data interoperability center is the data accumulation of data layer products after cloud computing processing based on the total amount of user access to the platform. At the same time, the data interoperability monitoring platform exists in parallel with the data interoperability center. By monitoring the incoming and outgoing data, the platform can effectively avoid system paralysis, virus invasion and other phenomena and protect the stability of system operation. Secondly, platform layer products can provide cloud APP store, unified message

center and individual application portal services to users. The platform provides convenience for teachers to push information to students and transfer learning resources. Teachers can collect the problems encountered by students through the intelligent education cloud platform, and then collect resources in the cloud platform according to the problems, and answer the questions of students through resource integration, and finally push the answers to students, thus improving the efficiency of time utilization.

Finally, the standard specifications of the smart education cloud platform are divided into five systems: message notification, basic data, identity authentication, application access and data exchange. Identity authentication is the industry standard of service authentication, which supports the integrated application of B/S and C/S architecture. The basic data includes not only the education data standards, but also the extended standards of special education in all regions. Data exchange, is to meet the education data CIF standard framework to provide exchange services, its performance is relatively stable; Message notification, that is, to provide services such as delete and push of third-party apps, and establish guidance and access guide and message center for them; The so-called application access, the application developer design of the registration, review provisions in accordance with the development guide to guide users to complete one by one.

(2) Design platform

Education cloud platform, home-school interaction platform and intelligent teaching platform jointly constitute the intelligent education cloud platform. Schools and parents can make use of the home-school interactive platform to achieve effective communication and complete the joint supervision of students' learning status, which is helpful for teachers and parents to timely grasp students' learning status, improve students' family education level and promote students' healthy growth. The performance and behavior data of students can be counted and analyzed in the intelligent learning service platform. The platform can assist teachers to carry out teaching work by evaluating relevant data and analyzing results, which is helpful for teachers to further improve the teaching program and improve the teaching quality. Functions such as user management and permission allocation can be uniformly provided by the education cloud platform, which can help various application systems quickly display and apply in the unified platform portal. [5]

(3) Application effect of smart education cloud platform

Through the application of advanced big data technology and information technology in the smart education cloud platform, it is convenient for teachers to improve the teaching plan according to the feedback data of students' learning, which is beneficial for teachers to answer students' questions in time. At the same time, the smart education cloud platform can also meet the learning needs of students and further improve their understanding and mastery of knowledge.

4. Problems encountered in the construction of wisdom education in colleges and universities

2014 China education online users have about 6, 0 million people, with the rapid

development of Internet information technology, the network and the acceptance of online education, distance education rises gradually, the online education users is growing at about 20% a year, is expected to be up to 160 million people in 2019, online education has made no small achievement. "The new technology changes the traditional teaching mode, and wisdom education forms the education industry ecosphere by improving the ecological development of the education industry, which has become the symbol of this period. Wisdom education in colleges and universities requires the concerted efforts of all social subjects, the effective integration of information and resources, the new structure of education environment, mode, system, etc., so as to produce greater effects. In the process of the development of intelligent education in colleges and universities, there are new opportunities, but at the same time, problems and obstacles need to be solved.

(1) Closed information and resources

With the development of Internet information technology, the model of "Internet plus education" is becoming more and more popular. [6] A lot of online education platforms have been developed, and many public courses of high schools and famous schools have been displayed on the platform. For example, NetEase open class, TED, MOOC and other online education platforms have attracted more and more attention and popularity. Some platforms support students to choose open courses of some famous universities online for learning, which can be counted into the score. At present, there are some disadvantages in the online education platform, such as the lack of effective management of the public course resources and the repetition of the course schedule. Each platform cannot realize the mutual sharing of resources independently, resulting in information and resource surcharges. On the other hand, due to the difference in the development degree and scale of online education platforms, the government, enterprises, schools and other main bodies may adopt different attitudes towards the support and preference of these online education platforms, which gradually leads to the closure of information resources and the inability to share, limiting the development of online education platforms. Area at the same place and at the same time as a result of not development, high school degree is poor, not can reach to the resources share, development degree high land area, high school could limit its opening and sharing of education resources, caused the message, the seal of the resources, nor can promote more well into the balanced development between high school and college internationalization process.

(2) Offline entity resources of universities, enterprises and other main bodies cannot be effectively opened and Shared

The equipment of a lot of colleges and universities of our country, equipment did not get the profit that make full use of, have is to buy only come back, did not have the technical talent of professional course of study to control. There is a lack of effective communication between colleges and universities. In addition, online education and learning cannot completely replace the practical operation part of the course. Only online and offline cooperation can form a complete educational and teaching situation. Therefore, the offline experiment and practice part is required. The combination of production, learning and research formed by the university and the enterprise also has some defects. Some practical equipment and high-tech intellectual equipment enterprises do not allow non-related staff to participate in or

watch due to various conditions, which limits the research of universities and also causes a waste of resources.

(3) In the network environment, the relationship between teachers and students in colleges and universities is stiff and tense, which needs a new breakthrough

Under the traditional education, most teacher-student relations are unidirectional and lack of effective interaction. Teachers play the role of a teacher who imparts knowledge and helps to solve problems. However, in the network environment, the role of teachers needs to be changed. Then need teachers consciously change of role, become the student good guide, the participants, teachers also need to use the network to learn the latest knowledge, expand field of vision, the proper use of the Internet, thinking transformation teaching mode, appropriate use of the Internet to live online teaching, the students easy to accept the way not only strengthen the connection between the teachers and students, reduce the gap of the communication, and promote the development of the intelligence education. [7] Classroom and teaching mode is one of the important factors affecting the relationship between teachers and students, some teachers in colleges and universities due to the curing of thinking, is not willing to accept new things, still stick to the original mode of classroom teaching, used blindly force-feeding teaching method, classroom environment, the atmosphere is less attractive, students listen to the teacher's enthusiasm is not high, naturally caused the tense relationship between teachers and students, this caused the construction of intellectual education in colleges and universities.

5. The path of the construction of intelligent education in colleges and universities in the new era network environment

In the new era, the network environment presents a pluralistic and complex situation, which brings great challenges to the construction and development of intelligent education in colleges and universities. In the face of challenges, we should make up for our shortcomings by taking advantage of our strengths and strengths, and fully exploit the role of social coordination, so as to bring the initiative of the government, universities, enterprises and communities into full play. The development of information technology such as big data, cloud computing and artificial intelligence has brought great convenience to information, integration of resources, configuration and reutilization. The construction of intelligent education in high schools should make full use of this technology to support the construction of hardware and software. In the context of network environment, teachers should make new positioning for the Angle of color, which will contribute to the construction of wisdom education in colleges and universities.

(1) Establish big data platform and integrate online and offline education resources

Despite the rapid development of Internet technology, it has not been well utilized in the construction of intelligent education. There are various web portals and platforms on the Internet, but they are all lack of unified management, closed and information sharing. Aiming at this disadvantage, the government, the enterprises should strengthen the partnership, system set system a management standards, the

strong network companies should add the information share, and build a system to recognize certificate, management system, and using the technology to classify all kinds of information resources for professional, and remove, no effect of resources and heavy compound, a series in a number of large size according to the platforms, the party is all the sex users increases with the increasing in learning and using. Although colleges and universities and enterprises have a lot of resources, the lack of effective management on the Internet also leads to low utilization rate of many resources, low social value and waste of resources. For all kinds of online education platforms, it is necessary to use big data, cloud computing and other technologies for unified integration, establish a huge unified national education platform, and conduct special classification according to schools, disciplines, majors, teachers and other categories, so that students can study online at any time and obtain certification. For offline practical operation, enterprises and universities should also timely release, so that the people in need can make advance appointment online to meet the needs of work, study and research. In this way, the utilization rate of online and offline resources will be greatly improved and the social value will be greater.

(2) Open up universities, enterprises and other physical resources to achieve mutual benefit and sharing

Enterprises, colleges and universities have relatively more physical resources such as experimental equipment, which is a favorable opportunity for the goals and courses that cannot be completed through online learning. Enterprises, colleges and universities can establish a powerful entity open-source platform for the real-name authentication, the user can according to the ourselves demand, and to go on the net "please phase should be equipment, and through the intelligent mobile terminals will enterprises, colleges and universities of physical resources and demanders for effective connection, and with the relevant units for effective interaction, feedback, evaluation, this kind of mode to learn not only satisfy people's needs, but also to help companies, high school expanding shadow ring around yourself. Enterprises and universities can formulate complete management system and corresponding punishment measures when opening their own physical resources, which standardizes the use of physical resources, creates a favorable environment for teachers and students to use, and creates conditions for teachers and students to carry out scientific research.

(3) College teachers learn and use the Internet consciously and innovate the teaching mode

The relationship between teachers and students in higher education is the core of higher education and the key factor in the development of higher education. In the new era, when the Internet provides equal opportunities for everyone, teachers should also change their thinking and mentality, from the power of preaching and giving knowledge to the students, to the guide, the guide and the participant. This process plays an important role in information technology. [8] College teachers should consciously use Internet technology to strengthen the communication with students, and create new classroom teaching mode, which can provide students with online education, distance education and live education. This new and popular teaching model can not only attract more students back to the classroom, but also strengthen the harmony of the relationship between teachers and students, and it is

also the innovation and breakthrough of the wisdom education in colleges and universities.

Conclusion

Opportunities and challenges coexist in the construction of intelligent education in colleges and universities in the new era network environment. With the proposal of Internet plus and the development of modern information technologies such as big data, cloud computing and artificial intelligence, it is the mission of the construction of intelligent education in colleges and universities to deeply integrate and innovate Internet information technology and education. Need wisdom education construction and development in colleges and universities cooperate with the government, schools, enterprises and other social subjects, using the Internet technology integration, configuration, all kinds of information resources, break open education problems, realize the education resource sharing, meet the needs of different areas, school teachers and students, and better service in the new era of building an innovative country, wisdom, the social service demand, is the goal of college education wisdom construction development and mission, we need to strive for.

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