Reflections on Educational Technology and Educational Reform in Colleges and Universities in the Era of Big Data

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Abstract: Under the era of big data, university education technology and educational reform has also taken a very significant change, university education technology can no longer according to the traditional teaching background to students to conduct professional courses education, Chinese university educators also face a greater challenge of teaching. Educational technology in colleges and universities has a profound influence on students' learning of professional courses. Only by implementing effective educational technology and methods can colleges and universities cultivate talents with more solid professional skills for the society. Therefore, colleges and universities must update their own educational technology development concepts around the actual development needs of the era of big data, so that their educational technology can be improved and popularized in a more correct way.

Keywords: Educational technology; Education change; The age of big data

Introduction:

In the era of big data, college teachers can carry out more intuitive professional teaching for students through different types of network resources and network data. But in this process, the network data for teachers to bring teaching problems are also very significant. In view of this phenomenon, universities must reform their educational technology, and strive to perfect and solve all kinds of problems highlighted by the integration of big data with educational technology in universities, so as to promote the development of our country's educational technology more effectively.

1. The impact of big data era on educational technology in colleges and universities

1.1 It is conducive to the transformation of professional curriculum teaching

Before the advent of the era of big data, one of the most modern teaching methods adopted by Chinese universities is the digital technology teaching means. In this form of education, colleges and universities usually use digital software construction to strengthen the teaching system of students' professional courses. However, although this kind of software creation mode can improve the teaching quality of teachers' professional courses to a certain extent, the digital teaching technology has great limitations in the development process. So far, our digital teaching technology is still too dependent on the previous teaching experience, and teachers use this kind of teaching technology to teach students for a long time, and teachers' teaching thinking is easily restricted [1].

1.2 Help to realize personalized learning for students

The effective integration of educational technology and big data in colleges and universities can make most teachers and students realize the importance of big data, and the sound thinking of big data can also introduce the "teaching" and "learning" between teachers and students into a new development realm, and the educational technology in colleges and universities can thus usher in a more innovative wave of change [2].

1.3 Help to promote the deep development of educational technology

The educational technology popularized by colleges and universities in the past should pay more attention to the understanding of students' actual learning situation, but in the actual professional courses, teachers only understand the actual learning situation of students is often not enough. There are many internal and external factors involved in students' professional learning. Effective

big data technology can accurately capture data information related to students' psychological and living conditions, and teachers can also establish a more harmonious and sound communication relationship with students according to the specific information of students reflected by big data. Only after teachers have a deep understanding of students' psychological characteristics and thinking development state, In order to carry out more targeted teaching for students.

2. Challenges of educational technology in colleges and universities in the era of big data

2.1 Data security

The gradual popularization of big data technology has brought a very intuitive educational basis for different types of professional teaching in colleges and universities. Especially in technical majors, big data can effectively promote the work efficiency in the process of data collection and application of such majors. Teachers can also lead students to carry out more modern teaching activities through big data technology. However, in the process of transmission and application of all kinds of data information, it is easy to produce certain data security problems, such as data leakage phenomenon when teachers are transmitting data. Such a situation will have a certain impact on the security of big data education technology, and the teaching effect of teachers is usually unable to reach the ideal state.

2.2 The moral issue of educational technology

Although big data can bring some convenience to teachers' teaching, teachers can also use big data to make statistics on students' learning status in the course of lesson preparation. However, in the process of collecting information to understand the characteristics of students, teachers do not rule out the possibility that some students are too sensitive to accept their privacy investigation. If teachers do not make their own teaching purpose and teaching use clear in the process of collecting students' data, students may have a very high possibility of resistance[3].

3. Specific Thoughts on educational technology and educational reform in colleges and universities in the era of big Data

3.1 A correct understanding of the data of educational technology

Nowadays, with the advent of the era of big data, many colleges and universities have carried out a very comprehensive transformation of their own educational technology, and big data educational technology has indeed been widely used and popularized in Chinese colleges and universities. However, in the process of the transformation of educational technology in colleges and universities along with the data education, the actual educational situation has not reached the expected effect of colleges and universities. The reason is undoubtedly that most college teachers do not have a correct understanding of the data of educational technology. Therefore, the data information teaching methods used in the process of educational practice are usually one-sided. For this phenomenon, college teachers must have a comprehensive and full study of digital educational technology[4].

3.2 Enhance the ability to use social media

With the advent of the era of big data, there are more and more different types of social media. At present, the most widely used social media among college students mainly include QQ, Weibo, Douyin, etc. In this regard, if college teachers can combine such social media application functions with big data to further innovate their own educational technology, then students will be more interested in teachers' course teaching.

The teaching technology form combining social media and big data can enable teachers to have a more appropriate understanding of students' ideology, and various application functions of social media can also bring greater convenience to students' access to data resources. When combining the functions of social media to teach students, college teachers can interpenetrate the cases or resources that are similar to the curriculum knowledge in students' life, so that students can have a deeper understanding of the curriculum knowledge and broaden their learning channels to some extent. In addition, teachers can also expand the learning platform for students during teaching, so that students can have more and richer learning information and resources.

3.3 Establish databases for scientific research and teaching

The progress and development of educational technology in colleges and universities in the era of big data is closely related to the support provided by scientific research and teaching in colleges and universities. The innovation and change of university education technology in the era of big data are changing with each passing day. In this process, once the data preparation and scientific research of colleges and universities fail to keep pace with the development of the social times, more comprehensive and effective data can not

be obtained in the implementation of educational technology in colleges and universities, and the teaching effect of teachers will be adversely affected.

In this regard, the reform of educational technology in colleges and universities must be based on the establishment and improvement of teaching database and teaching and scientific research. In addition, for the teaching challenges brought by the era of big data for the education technology in colleges and universities, colleges and universities should reasonably solve and improve the security problems existing in the database through effective big data application technology. At the same time, colleges and universities should make use of advanced cloud computing technology to effectively integrate the major change trends of our society into their own database resources, so as to make a more scientific and reasonable prediction of the specific reform direction of their own educational technology.

3.4 Expanding channels for education dissemination

While reforming and developing their own educational technology, colleges and universities should also pay attention to the innovation and improvement of their own educational communication channels. Effective educational communication channels can give students more space for learning choices, and students can also obtain the teaching guidance they want according to their own learning needs. In this form of teaching, students' learning enthusiasm can also be effectively promoted, and the data communication function of big data can also make a more innovative change to the communication channels of college education.

4. Concluding Remarks

To sum up, with the advent of the era of big data, college education technology is constantly developing and innovating. In this regard, colleges and universities must effectively adapt to the concept of education development in the era of big data, and make good use of big data information technology to carry out certain changes in their own curriculum teaching Settings. In addition, it should also work out a more beneficial reform strategy for college educational technology through the effective thinking of its own educational technology development and reform. Only in this way can the educational technology of colleges and universities in the era of big data truly fit in with the modern educational development concept formulated by the state. Students' professional skills and theoretical knowledge can be strengthened and consolidated in a more practical way.

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