Original Paper

Bridging Theory and Practice in Private Higher Education:

Pedagogical Innovations for the Digital Age

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Abstract

With the application of big data in the information age, the popularization of artificial intelligence and the coming of the network society, the traditional university education model has been severely impacted and challenged. It is an inevitable trend for higher education to adapt to the new social development reality and make corresponding adjustment and reform. Traditional university education pays attention to the imparts of theoretical knowledge and the cultivation of practical ability, but in the information age, students can get rich information and knowledge through the Internet, thus weakening the monopoly of traditional education. In addition, the popularity of artificial intelligence technology also means that some traditional teaching activities can be replaced by automation and intelligence, and the value chain of traditional education has been reshaped. The rise of the network society has also posed new challenges to the traditional university education model. The network society is characterized by a high degree of information sharing and exchange, and students can access various online educational resources and learning opportunities through the network platform. Therefore, traditional university education needs to find a new positioning and role, pay more attention to cultivating innovative ability, practical ability and teamwork ability, and provide students with more competitive comprehensive ability. Faced with these challenges, higher education must make corresponding adjustments and changes. The article carries out relevant research and puts forward specific countermeasures, mainly to update the educational concept, change the educational mode, and focus on cultivating students' innovative thinking and problem-solving ability. It is necessary to develop diversified educational resources, meet social needs, strengthen cooperation with industries and enterprises, and provide professional education that matches market demand. At the same time, it is also necessary to actively develop online and distance education, make full use of online platforms and technological means, and provide flexible and diverse learning opportunities.

Keywords

information technology, Higher education, Teaching mode, Teaching theory

Introduction

With the application of big data in the information age, the popularization of artificial intelligence and the coming of the network society, the traditional university education model has been severely impacted and challenged. In order to adapt to the new reality of social development, higher education must be adjusted and reformed accordingly. This means updating educational concepts, focusing on cultivating innovative capabilities, optimizing educational resources, strengthening cooperation with industries, and developing online education. Only in this way can higher education keep pace with The Times and cultivate competitive talents for society.

1. The Dilemma and Performance of Private Colleges and Universities under the Impact of Digital Wave

1.1 Traditional Majors Are Disappearing Fast

Under the impact of the digital wave, some traditional majors in traditional universities are gradually disappearing. Industries such as car driving, food processing, logistics, administrative functions, finance and legal services are all undergoing constant iterations and changes, which means that the demand for relevant traditional majors is gradually decreasing. For example, with the development of autonomous driving technology and intelligent transportation systems, traditional car driving majors are at risk of becoming obsolete. The advent of autonomous vehicles will reduce the need for human drivers, so the employment prospects of the traditional automotive driving profession will suffer. For another example, with the acceleration of automation and intelligence in the food processing industry, the employment demand of the traditional food processing profession is also decreasing. With the application of robots and automation equipment, the demand for human operators in the food processing industry is reduced, and more new jobs related to intelligent production lines may emerge in the future. In addition, the logistics industry is also undergoing a digital transformation. With the progress of logistics technology, the traditional manual operation and warehouse management will be replaced by automation and intelligence, which will bring challenges to the traditional logistics profession. Industries such as administrative functions and financial and legal services are also facing a similar situation. With the development of information technology, many administrative jobs can be replaced by software and systems, and the job prospects of traditional administrative majors may be affected. The financial and legal service industry is also facing the impact of digitalization and intelligentization, and many traditional financial and legal service jobs can be replaced or changed by new technologies. While traditional professions are facing challenges, the wave of digitalization has also given rise to many new occupations. For example, new occupations such as data scientist, artificial intelligence expert and big data analyst are rising rapidly and in increasing demand. These emerging occupations are closely related

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to the development of digital technology and are expected to become hot positions in the job market in the future. With the continuous development of science and technology, we can foresee the adjustment and transformation of career structure, and colleges and universities need to optimize and adjust their courses according to market demand to train talents to meet the needs of emerging professions.

1.2 The Traditional Education Model and Curriculum Form Are Facing Great Challenges

The process of digitization makes the traditional education model and curriculum form of private colleges and universities difficult to sustain, which are reflected in the following aspects: (1) Diversified teaching resources: digital technology provides students with more choices of learning resources, which are no longer limited to traditional textbooks and teachers. Students can obtain a wealth of electronic books, online courses, literature and other materials through the Internet, so as to broaden their knowledge and learning content. (2) Personalized learning path: The digital environment provides the possibility of personalized learning, and students can choose their own learning path according to their interests and learning needs. For example, students can choose the time, place and speed of learning according to their own specific conditions, so as to achieve all-weather, all-place and personalized learning. (3) Independent learning and problem solving ability cultivation: Digital teaching advocates the cultivation of students' independent learning and problem solving ability. Students can take the initiative to acquire knowledge and solve problems through Internet search and online learning, so as to cultivate the ability of independent thinking and independent learning. (4) Improve learning effect and motivation: Digital teaching can use images, audio, video and other multimedia forms to present knowledge, enrich learning content and improve learning effect. At the same time, digital teaching can also enhance students' learning motivation and interest through online discussion, collaborative learning and other ways. (5) Broaden subject categories and fields: Digital education can break through the boundaries of traditional subjects and provide multi-field learning resources and course choices. Students can choose interdisciplinary learning content according to their own interests and development needs, so as to better adapt to the needs of social change.

The process of digitization has brought a lot of personalized pressure to the curriculum of private colleges and universities, requiring educational institutions to actively expand the course form and teaching mode according to the needs of students and the development trend of The Times, and improve the quality of education and students' abilities.

1.3 Teachers' Traditional Functions Are Changing

The digital teaching development process is challenging the professional positions of college teachers in private colleges and universities. With the development of emerging technologies, some of the work of teachers has been replaced by artificial intelligence, which makes teachers more likely to play the role of organizers and assistants in promoting students' learning in the future. First of all, digital teaching methods have an impact on teachers' traditional teaching methods. Traditionally, teachers mainly play the role of imparting knowledge and guiding students' learning. However, due to the emergence of digital teaching tools and platforms, students can obtain textbooks and knowledge through online education

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platforms, learning software, etc., which makes teachers' knowledge transfer work greatly reduced. At the same time, the development of computers and artificial intelligence has enabled the teaching of some basic knowledge to be automated and personalized, which has further weakened the importance of teachers in knowledge transfer. Secondly, the application of emerging technologies also provides opportunities for personalized learning. Ai can recommend corresponding learning content and strategies for students according to their learning situation and characteristics. This allows students to be better satisfied in their own learning progress and ways, while teachers need to be more of an organizer and helper of students' learning. Teachers may need to develop personalized learning plans and guidance by analyzing students' learning data, as well as providing timely feedback and support. In addition, digital teaching also provides teachers with more time and resources to focus on the cultivation of students' comprehensive literacy. Teachers can spend more time on extracurricular activities, innovative practices and student guidance to help students develop comprehensive qualities and solve practical problems. Although the development of digital teaching has brought some challenges to the professional positions of college teachers in private colleges and universities, the role of teachers will also change. Teachers in the future will pay more attention to the individual needs of students and pay more attention to the cultivation of students' comprehensive literacy. They will be the organizers, guides and AIDS of students' learning to better adapt to the needs and changes of digital teaching and ensure the all-round development of students' learning ability and quality. Coupled with the fact that teachers' expertise, interpersonal skills and emotional support are still irreplaceable, their role will remain an integral and vital part of education.

1.4 There Is an Urgent Need for Innovation in the Form of Running Private Colleges and Universities

With the rapid development and popularization of artificial intelligence, libraries, scientific research and examination systems are undergoing earth-shaking changes. New forms of higher education organization are constantly being innovated, and modern information technology is beginning to reshape higher education. First of all, the popularization of artificial intelligence has changed the way of academic research, and the role of libraries in scientific research has changed. In the past, the library was the main place to get academic materials, and students and teachers needed to go to the library in person to look for relevant documents and materials. But now, the development of artificial intelligence allows academic resources to be accessed and shared remotely via the Internet and digital technology, reducing the need for people to visit libraries on the spot. Scholars can access various academic resources through online databases, electronic books and academic search engines, which greatly improves research efficiency and convenience. Secondly, the application of artificial intelligence technology is also changing the examination system. Traditional examination methods often rely on pen and paper and invigilation, but now, through artificial intelligence technology, automated and intelligent examination assessment can be realized. For example, facial recognition technology can be used for examination room monitoring, and intelligent algorithms can be used for automatic scoring, making the examination process fairer, more efficient and accurate. In addition, there are some emerging online examination platforms and learning

management systems that have emerged, providing more interactive and personalized learning opportunities for students and teachers. In response to the changes in higher education under the new situation, some schools and educational institutions have begun to explore innovative forms of higher education organization. The rise of online education platforms has provided more flexible and convenient ways for people to learn. Students no longer need to attend classes on campus in person, but can freely arrange their studies according to their own time and place. Virtual LABS and remote collaboration platforms have also provided broader space and opportunities for scientific research. With the emergence of these innovative forms, the existence of boarding universities is no longer necessary. To sum up, with the development and popularization of artificial intelligence technology, library scientific research and examination systems are undergoing earth-shaking changes. New forms of higher education organization continue to innovate, and modern information technology has begun to reshape higher education. Boarding universities may face the challenge of ceasing to exist, while new forms such as online education and distance learning will become the mainstream of higher education in the future.

2. Common Misunderstandings of Traditional Private Colleges and Universities in Dealing with the Digital Wave

First, the use of digital technology as a tool: these schools often regard digital technology as only a tool to optimize the management and teaching process of colleges and universities, without deeply thinking about the impact of digital technology on colleges and universities themselves. They simply digitize traditional teaching content and processes, ignoring the profound changes that digital education brings to students and teachers.

Second, see digital technology as a way to make small changes: These schools see digital technology as a way to make small changes, rather than as an opportunity for disruption. Instead of focusing on improvements in teaching and management, they fail to recognize the potential for major changes in the educational model that digital technology has brought about. They do not think deeply about whether digital technology can change traditional teaching methods, subject Settings, assessment methods, etc.

Third, there is a lack of subversive understanding of the structure of universities: these schools do not reflect deeply on the problems of the existing university structure, but simply try to add digital technologies on top of the traditional university structure. They fail to recognize the opportunities presented by digital technology, which may fundamentally disrupt the organizational form of universities, management systems, and the role of teachers. They have not thought about how to change the traditional university structure and solve the problems faced by traditional universities through digital technological innovation.

In general, the concrete manifestation of this misunderstanding is that the understanding of digital technology is too narrow, and it does not fundamentally think about the challenges and possible changes of the digital wave to institutions of higher learning. Private institutions of higher learning should have a deeper understanding of the potential of digital technology, reconsider the role and function of

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universities, as well as the subversive effect of digital technology on the educational model and structure of colleges and universities, and further innovate educational concepts and strategies.

3. Logical Thinking on Innovative Education and Teaching in Private Colleges and Universities in the Digital Era

3.1 Deeply Understand the Internal Civilization Logic of Digital Universities

Digital private universities are subversive innovations to traditional private universities. Private colleges and universities should set up a philosophical view of technology and understand the driving effect of digital technology on private colleges and universities from a philosophical point of view. The network structure of the university is shaped by the network logic.

(1) Provide personalized education: Digital technology can collect and analyze student learning data to better understand students' learning needs and characteristics. Private colleges and universities should make use of the philosophy of technology to provide personalized education through data-driven teaching methods, that is, to develop learning plans and teaching methods according to students' interests, learning levels and learning styles.

(2) Strengthening interdisciplinary integration: Digital technology provides a better platform for interdisciplinary integration in private universities. Private colleges and universities can use network logic to break the traditional discipline boundaries and build an interdisciplinary network structure. This helps to cultivate students' comprehensive ability and interdisciplinary thinking mode. Private colleges and universities should consider the value and significance of interdisciplinary integration from a philosophical perspective, as well as specific ways to promote interdisciplinary integration through digital technology.

(3) Provide open educational resources: digital technology makes educational resources more open and free. Private colleges and universities should establish the concept of technological philosophy and make full use of digital technology to provide open educational resources, such as open online courses, teaching videos, e-books, etc., so that more students can obtain high-quality educational resources for free or at low cost.

(4) Strengthen the interaction between students and society: digital technology can promote the interaction and cooperation between private colleges and society. Private colleges and universities can use network logic to build communication platforms between students and society, such as online internships and school-enterprise cooperation projects. Private colleges and universities should consider the importance of interaction between students and society from a philosophical perspective, as well as the specific ways and significance of digital technology in promoting interaction between students and society.

(5) Improve the efficiency of teaching management: digital technology can improve the efficiency of teaching management in private colleges and universities. Private colleges and universities should establish the concept of technical philosophy and make full use of digital technologies, such as student

information management system, online examination system, teaching evaluation system, etc., to improve the efficiency and quality of teaching management.

In general, digital private colleges and universities need to establish a philosophical view of technology, understand the role of digital technology in promoting private colleges and universities from a philosophical perspective, and take corresponding specific countermeasures, such as providing personalized education, strengthening interdisciplinary integration, providing open educational resources, strengthening the interaction between students and society, and improving the efficiency of teaching management. To improve the quality of education and promote the development of colleges and universities.

3.2 Develop Discipline Paradigms and Teaching Concepts Adapted to the Digital Age

In-depth understanding of the differences between digital universities and traditional private universities in terms of scientific view, university concept, university form, organization form and discipline form, so as to form a new scientific paradigm under the digital background.

Digital universities pay more attention to interdisciplinary cooperation and data-driven scientific research methods, emphasizing the importance of data collection and analysis, and generating new knowledge based on data. Traditional private universities focus more on academic tradition, theoretical research and academic publication as the core. Digital universities should strengthen the construction of interdisciplinary research centers, encourage cooperation among different disciplines, and provide more data analysis tools and resources. At the same time, we should promote the sharing of scientific research results by digital means such as data sets and models, so as to promote the transparency and repeatability of scientific research.

Digital universities pay more attention to openness, sharing and sustainable development, and advocate open educational resources and open scientific research. Traditional private universities, on the other hand, pay more attention to independence and market competition. Digital universities can build open education platforms, provide free or low-cost learning resources, promote the MOOC (Massive open online course) model, break the limitations of time and space, and realize the popularity of online learning. At the same time, teachers and students should be encouraged to carry out open scientific research and strengthen cooperation with other institutions to achieve the sharing of scientific research results and common progress.

The digital university uses a hybrid teaching model that combines online and offline teaching to provide a flexible learning environment and diversified learning styles. Traditional private universities focus on offline classes. Digital universities can build modern online learning platforms, offer a variety of online courses and learning resources, and cultivate students' ability to study independently and obtain information. At the same time, digital universities should also attach importance to offline practice links, establish university-enterprise cooperation bases, provide internship and project cooperation opportunities, and provide students with practical application opportunities.

A digital university has a flat organizational structure and focuses on students' self-management and

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academic freedom. Traditional private universities pay more attention to centralized management and administrative hierarchy. Digital universities can establish a mechanism of student autonomy, encourage students to participate in school decision-making and management, and provide a platform for free academic discussion. At the same time, digital universities should also strengthen the reform of teacher training and evaluation mechanisms to stimulate teachers' innovative spirit and teaching ability.

Digital universities pay more attention to the cultivation of interdisciplinary and frontier disciplines, and promote the integration and communication among disciplines. Traditional private universities pay more attention to applied disciplines and vocational education. Digital universities can create interdisciplinary research centers, encourage students to choose courses and research projects across disciplines, and cultivate comprehensive abilities across fields. Meanwhile, digital universities should also strengthen cooperation with strategic emerging industries to provide students with subject choices and job opportunities that match market demand.

To sum up, the digital university is different from the traditional private university in many aspects, and the new scientific paradigm under the digital background needs to carry out innovation and reform in the aspects of scientific view, university concept, university form, organizational form and discipline form. By strengthening interdisciplinary cooperation, promoting open education and scientific research, building a quality online learning environment, and cultivating students' ability to be independent and adapt to market demands, digital universities can better adapt to the development needs of the digital era.

3.3 Form a New Perspective of Running a School Based on Historical Development Practice

Digital university is a new form completely different from traditional university, so private university needs to base on historical practice, watch the change of university form, and establish a sense of transformation from the construction and development of digital university by referring to the new form of university form around the world. In the curriculum system, teaching mode, learning style, student services and other aspects of the full transformation and innovation.

In terms of curriculum system, private universities can implement more flexible curriculum Settings and offer more online courses or hybrid courses to meet the needs of different students. At the same time, interdisciplinary courses can be introduced to cultivate students' comprehensive ability and innovative spirit. In terms of teaching mode, private universities can strengthen the construction and implementation of online teaching, and provide high-quality teaching resources through online teaching platforms, virtual laboratories and other tools. It can also promote personalized teaching, according to the learning style and interest characteristics of students, to provide personalized teaching programs. In terms of learning methods, private universities can make use of the Internet and mobile technology to provide diversified learning methods, such as distance learning, independent learning and cooperative learning. At the same time, it can also promote the construction of learning community and promote the interaction and communication among students. In terms of student services, private universities can strengthen communication and contact with students and provide personalized student services. A student service platform can be established to provide students with online consultation, course selection guidance,

academic counseling and other services. Cooperation with enterprises can also be strengthened to provide internship and job opportunities for students. In terms of transformation consciousness, private universities need to strengthen their awareness and understanding of the construction of digital universities, understand the development experience of new forms of universities around the world, and carry out reform and innovation according to their own conditions. At the same time, it is necessary to establish a good transformation mechanism and strategic planning to provide support and guarantee for the construction of digital university.

In short, to face the challenges and opportunities of digital universities, private universities need to actively transform and innovate, carry out reforms in the course system, teaching mode, learning mode and student services, and constantly improve the quality of education and service level. At the same time, it is necessary to establish a sense of transformation, refer to the experience of global new form universities, and promote the construction and development of digital universities.

4. Conclusion

To sum up, under the digital wave, private colleges and universities need to promote the transformation from top to bottom, and comprehensively build a digital technical environment and social environment. Through the development of strategic planning, construction of technical environment, improvement of teaching content and methods, enhancement of teachers, cooperation with enterprises, strengthening cooperation and exchanges and other specific countermeasures, private colleges and universities can better adapt to the educational needs of the digital age, and realize the digital reconstruction and reorganization of traditional universities.

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