A STUDY OF THE PRACTICAL ASPECTS OF DIGITAL AND INNOVATIVE TECHNOLOGIES IN THE FURTHER EDUCATION SYSTEM

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Abstract: With the rapid development of digital technology, the further education system is experiencing profound changes. The application of digital empowerment and innovative

technologies has brought many opportunities for continuing education, while facing practical problems such as data retention and sharing, technical and talent challenges, shortage of costs, privacy protection, etc., we need to adopt strategies such as perfecting the basic support and innovating the teaching mode to solve them. The purpose of this paper is to discuss the current situation of the application of digital and innovative technologies in the continuing education system, the main problems faced, combined with the theoretical and practical cases of China's continuing education, and put forward the corresponding solution strategies, with a view to providing theoretical references and practical guidance for the high-quality development of continuing education

Keywords: Digital Technology, Innovative Technology, Continuing Education System, Practical Problems, Solutions, China

Modern digital technology is being integrated into the field of education with new concepts, new means, new modes and new mechanisms, bringing a wide and profound impact on education. Digital society, digitalisation of talent cultivation goals, digitalisation of teaching mode and digitalisation of education quality assurance mechanism are the main goals of digital development of higher continuing education. However, in this process, the continuing education system faces challenges in many aspects, such as data retention and sharing, shortage of technical talents, shortage of costs, and privacy protection.

I. Analysis of the current situation

1. Status quo of digital technology application

1.1 Information construction: many colleges and universities have upgraded and iterated their information construction through the leasing of information platforms and network course resources to achieve the development of independent construction of digital resources, wisdom in school management and online monitoring of teaching.

1.2 Independent construction of teaching resources: in order to solve the problem of lack of teaching resources, some colleges and universities rapidly develop courses at low cost through the informatisation platform recording system. **1.3 Online monitoring and management**: through the one-stop teaching management platform, it realises all-round dynamic monitoring of the teaching process.

2. The main problems faced

2.1 Data retention and sharing problems: at present, many schools do not have the awareness of data retention and data collection, a large number of students‘ information is still on paper files, and it is difficult to achieve the docking and sharing of students’ data at various stages. This leads to a fragmented state of data, which is difficult to integrate and effectively utilise.

2.2 Technical and Talent Difficulties: the collection of data, big data storage, and platforms for continuing education in colleges and universities are still in a fragmented state, and the lack of technicians is also a key problem. Especially in the collection, collation and analysis of data, there is a lack of talent, which makes it difficult to meet the actual demand.

2.3 Shortage of costs: big data processing requires a certain amount of infrastructure and systems, which requires financial investment. However, continuing education is in a non-core position in the whole school, and the school's investment in continuing education is relatively small, leading to the problem of shortage of funds for big data application.

2.4 Difficulty of privacy protection: privacy leakage is an unavoidable problem in the process of big data application, which must be given sufficient attention. How to protect personal privacy in data utilisation is another important challenge facing the further education system.

II.Second, the solution strategy

1. Improve the basic support

1.1 Strengthen data collection and storage: Enhance data collection and storage by establishing a robust mechanism, heightening data retention awareness, and facilitating seamless data sharing across all student stages. Simultaneously, bolster data storage infrastructure to elevate security and reliability. Zibo Vocational College exemplifies the pivotal role of IT construction in

enhancing continuing education quality and teaching standards through self-built digital resources, smart school management, and online teaching monitoring via leased IT platforms and course resources. Emulating this, establish a comprehensive data collection system, enhance data retention awareness, and ensure data integration and effective utilization.

1.2 Cultivate technical talents: Cultivate technical talents by enhancing training and recruitment to boost skills in data collection, collation, and analysis. Improve existing technical staff's professionalism through training courses and external expertise. Peking University's ‘National Training Plan’ offers a management framework for teacher training, including project implementation, multi-faceted research, and process management mechanisms. This serves as a valuable reference for continuing education management innovation. Collaborating with Peking University's program has increased technical personnel training and professionalism.

1.3 Increase funding input: Boost funding for continuing education by securing investments from the university and exploring diversified sources like enterprise contributions and government grants. Ensure adequate infrastructure and system support for big data applications. Qinghai University's School of Continuing Education exemplifies this by successfully obtaining university funding, diversifying funding channels, and enhancing infrastructure and systems.

1.4 Strengthening privacy protection: Establishing a sound privacy protection mechanism to ensure that personal privacy is not infringed upon in the process of data utilisation. By combining technical and legal means, PIC has successfully established a sound privacy protection mechanism to ensure that personal privacy is not violated in the process of data utilisation.

2. Innovative teaching models

2.1 Personalized Learning: Using big data and artificial intelligence technology, we analyse students' learning behaviours and needs, and provide students with personalized learning resources and teaching services. Through accurate push learning content and personalised counselling, students' learning effect and satisfaction are improved. Guangdong Light Industry Vocational and Technical College uses big data and artificial intelligence technology to achieve accurate analysis of students' learning behaviours and needs, and provide personalized learning resources and teaching services.

2.2 Intelligent management: using the intelligent teaching management platform, it realises all-round dynamic monitoring and management of the teaching process. Through data analysis and early warning mechanisms, problems in the teaching process are discovered and solved in a timely manner, and the efficiency and quality of teaching management are improved. The teaching management platform of Zibo Vocational College realises all-round dynamic monitoring and management of the teaching process and improves the efficiency and quality of teaching management.

2.3 Co-construction and sharing mechanism: explore the establishment of a co-construction and sharing mechanism between colleges and universities, and between colleges and enterprises, to achieve the sharing of high-quality digital resources and mutual benefit and win-win. It promotes the high-quality development of continuing education through cooperation in building online course resources and sharing teaching management experience. Qingdao Open University has actively explored the establishment of a joint construction and sharing mechanism among universities and between universities and enterprises, realising the sharing of high-quality digital resources and mutual benefit and win-win situation, and promoting the high-quality development of continuing education.

III. Conclusions

The application of digital and innovative technologies in continuing education presents both opportunities and challenges, including data retention, sharing, technical and talent gaps, funding shortages, and privacy concerns. To address these, strategies such as enhancing data support, fostering technical talent, securing funding, and strengthening privacy measures are crucial. Additionally, innovative teaching methods like personalized learning, intelligent management, and shared resources can improve teaching effectiveness and management, supporting the sustainable, healthy, and high-quality development of continuing education.

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