

SMART EDUCATION AND DIGITAL TRANSFORMATION IN CHINA

Qianyun Chen
E-mail: 505922882@qq.com

Abstract:

Smart education and digital transformation are driving the modernization of education in China. Through literature review and case analysis, this paper discusses the connotation of intelligent education, the practical path of digital transformation, and the challenges and opportunities faced. The study found that China has made significant progress in policy support, technology application and innovative practice, but it still needs to deal with problems such as inadequate resources and inadequate digital literacy of teachers. This paper puts forward suggestions on strengthening policy guidance, optimizing resource allocation and improving teachers digital ability, so as to promote the sustainable development of intelligent education and digital transformation.

Keywords: smart education,digital transformation in China

Introduction

Intelligent education and digital transformation are at the forefront of global education development, and artificial intelligence, as its core driving force, is reshaping the future of education. As one of the largest education markets in the world, Chinas educational innovation not only affects the improvement of high-quality education level in China, but also provides valuable experience and reference for the development of global education. Therefore, it is of great international significance to explore the practice and innovation of intelligent education in China.

At present, China has made significant progress in the field of intelligent education, including the improvement of educational information infrastructure, the deep integration of artificial intelligence and education, and the promotion of offline mixed teaching mode. However, it also faces challenges such as digital divide, inadequate digital literacy, and unbalanced educational resources. At the same time, the global demand for educational innovation is increasing, and how to use artificial intelligence to promote educational equity and personalized learning has become the focus of international attention.

Hou Chunxiao (2024) pointed out that the digital transformation of intelligent education is a common topic in the global education field. Chinas practice and experience in this field can provide reference for other countries, and international advanced educational technologies and concepts can also provide support for Chinas educational reform. Through exchanges and cooperation at international conferences, countries can promote resource sharing, experience exchange and technical cooperation in the field of intelligent education, and promote the digital transformation of global education. Driven by the global digital wave, the education sector is undergoing unprecedented changes. As an important direction of education modernization, intelligent education and digital transformation are reshaping Chinas education ecology. This paper aims to explore the practical path, challenges and future development direction of smart education and digital transformation in China. Analyze the current situation and practical path of smart education and digital transformation in China, discuss the challenges and opportunities faced by smart education and digital transformation, and put forward suggestions to promote the sustainable development of smart education and digital transformation.

The History and current situation of intelligent education

The development of intelligent education in China has gone through a process from initial exploration to gradual improvement. Wei Wensong (2022) emphasized that the digital transformation of education is an important strategic measure of China's education reform, and also the main trend of the development of modern education. Educational informatization mainly focuses on the construction of hardware facilities such as computer classrooms and multimedia teaching equipment. With the popularity of the Internet, online education platforms have begun to rise. Sun Jieyuan (2024) found that in recent years, with the introduction of artificial intelligence, big data and other technologies, intelligent education has entered a new stage of development, emphasizing the digital integration of personalized learning, intelligent teaching system and educational resources.

Challenges faced in the current context

Although smart education has made remarkable progress in China, it still faces many challenges. First of all, the digital divide between urban and rural areas still exists, the remote areas of education information infrastructure construction relatively lag, technology and infrastructure technology equipment and network infrastructure, economically developed areas schools can be equipped with advanced electronic equipment and rapid stable network, and remote areas or economic backward place is lack of necessary technical equipment, network signal is not stable, restricted the popularization of wisdom education and promotion. Secondly, it is necessary to improve teachers digital literacy and information technology application ability. Some teachers are not skilled enough in using intelligent education tools. In the aspects of digital learning environment and resource construction and platform application construction, there is a shortage of talents for digital teachers and digital students. The digital transformation of education requires the cooperation of education, technology, industry and other aspects, but there are still deficiencies in industrial collaboration in the research and development, application and promotion, talent training and other aspects.

Artificial intelligence education innovation

Artificial intelligence provides a strong technical support for intelligent education. LAN Gushuai (2023) shows among his researchers that education has become more efficient and personalized through intelligent teaching systems, personalized learning path design, intelligent tutoring tools and other applications. Artificial intelligence has also promoted the reform of the education evaluation system, developing from the traditional assessment and evaluation to the comprehensive quality evaluation. China has made some achievements in the application of artificial intelligence education, but it is still necessary to further strengthen technology research and development and application promotion in order to achieve comprehensive innovation in education.

The expected outcomes and the future prospects

Through the implementation of the digital transformation strategy of intelligent education, China education is expected to achieve significant results. The research of Zhao Jingying (2022) shows that the gap between urban and rural education resources should be further narrowed and the fairness of education should be improved.

Through artificial intelligence, big data and other technologies, education will pay more attention to the generation, dissemination and innovation of knowledge. Improving the quality and efficiency of education: With the help of artificial intelligence and big data analysis, educational institutions can achieve precise teaching, personalized learning path

planning and intelligent evaluation. For example, AI can tailor learning paths according to students’ learning progress and behavior to comprehensively improve teachers’ digital literacy and teaching ability, and further guarantee the quality of education. Optimization and sharing of educational resources: Through the digital platform, high-quality educational resources can be more widely disseminated and shared, and the educational gap between urban and rural areas and regions can be narrowed. For example, holographic classroom technology can enable students in remote areas to obtain the same quality of educational resources as urban students. The popularization of intelligent education will cultivate more talents with digital literacy and innovation ability for the society, and promote sustainable economic and social development.

Policy advice and international cooperation

In order to promote the sustainable development of smart education, the government needs to formulate and improve relevant policies. Increase financial support for educational information and optimize the allocation of resources to ensure that remote areas can also benefit. We will formulate and improve digital literacy standards for teachers and students, and deepen the use of AI to boost the ranks of teachers. We will establish an incentive mechanism for teachers, raise teachers’ salaries, and attract more outstanding talents to join the cause of smart education. Establish an educational evaluation and scientific decision-making system based on big data and artificial intelligence support to strengthen cyber security.

We will strengthen international cooperation and exchanges, introduce advanced educational technologies and concepts, and strengthen international cooperation in emerging technologies such as 5G, artificial intelligence and cloud computing. Promote the sharing and exchange of privacy computing, blockchain and other technologies, and enhance the competitiveness of the global digital technology field. Enhance the international influence of China smart education.

Conclusion

Intelligent education and digital transformation are at the forefront of global education development, and artificial intelligence, as its core driving force, is reshaping the future of education. The Chinese government attaches great importance to intellectual policy, intelligent education and digital transformation, and has issued a series of policy documents to clarify the development direction of education digitalization. For example, the construction of the national smart education public service platform has provided rich educational resources for teachers and students across the country. As one of the largest education markets in the world, China’s educational innovation not only affects the improvement of the quality education level in China, but also provides valuable experience and reference for the development of global education. At present, China has made significant progress in the field of intelligent education, but it also faces challenges such as the digital divide and insufficient digital literacy. Through exchanges and cooperation at international conferences, countries will promote resource sharing, experience exchange and technical cooperation in the field of smart education, promote the digital transformation of global education, and lay a solid foundation for cultivating high-quality talents to adapt to the future society.

Reference

Hou Chunxiao said. Research on the Dynamic Mechanism and realization path of the digital transformation of school education [J]. East China Normal University, 2024, 1-287.



- LAN Gushuai, Song Fan. Artificial intelligence education application: Intelligent tools, Advantage and Challenges, and Future Development [J]. Jiang Journal, 1-8.
- Liu Xing. Research on the Development of Information literacy Education in China since the Reform and opening up (1978-2023) [J]. Yangzhou University, 2024, 1-371.
- Sun Jieyuan. Education digitization enables education power [J]. Journal of Northwestern Polytechnical University (Social Science Edition), 1-8.
- Wei Wensong. Study on the learning right under the digitization of education [J]. Southeastern University, 2022 (05): 1-284.
- Wang Zhijun, LAN Gushuai, Nie Zhuming, Wang Juan, Li Haifeng. The construction of a strong country and the digital reform of higher Education in the New Era (written) — Learn the spirit of the National Education Conference [J]. Journal of Northwestern Polytechnical University (Social Science Edition), 1-13.
- Zhao Jingying, Wu Jian. Artificial intelligence enables personalized learning: Path analysis of K-12 education digitization in the United States [J]. Journal of Comparative Education, 1-11.