

# Application, Development, and Innovation of Educational Technology in the New Media Era

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**Abstract:** With the development and progress of information technology, people have gradually entered the digital information age, and the Internet has become a platform for information dissemination and the development and proliferation of new media. Simultaneously, relying on the advancements in mobile Internet technology, new media has emerged as a crucial medium for communication. The integration of digital new media technology into education has introduced fresh characteristics and developmental trends to educational technology, providing education with corresponding opportunities for development and innovation. The extensive adoption and dissemination of computer technology have propelled the amalgamation and advancement of new media technology and educational technology. This paper examines how Chinese college instructors apply, develop, and innovate educational technology in the era of new media, and explores methods to enhance educational technology.

**Keywords:** New media era; Educational technology; Application; Development; Innovation

**Online publication:** March 29, 2024

## 1. Introduction

In the new media environment, communication between people has transitioned from traditional face-to-face interaction to mediated communication, altering the way individuals connect. Failure to recognize this shift in a timely manner may lead to setbacks. In the current era of new media, the “Internet+” approach has permeated every aspect of life, offering abundant content, rapid transmission speeds, and the attributes of freedom, openness, and convenience that have integrated into people’s daily routines.

According to the 52nd Statistical Report on China’s Internet Development released by the China Internet Network Information Center in Beijing, as of June 2023<sup>[1]</sup>, the number of Internet users in China had surged to 1.079 billion, representing an increase of 11.09 million since December 2022, with an Internet penetration rate of 76.4%. Remarkably, among these users, mobile Internet users accounted for 1.076 billion, constituting an impressive 99.8%. This data underscores the significant role that new media plays in people’s learning, daily life, and entertainment, solidifying its status as an indispensable tool for individuals.

Faced with the new era of extensive new media applications, the development of educational technology

is fraught with uncertainties, posing an urgent and critical issue for the future trajectory of educational technology. The application of educational technology is finely tuned to students' psychological state. Modern educational technology is indirectly integrated into teaching, furnishing students with a more intuitive learning environment, effectively stimulating their learning initiative, enhancing teaching efficacy, and facilitating students' exploration of new knowledge and development of their potential through personal experiences.

The advancement of educational technology fosters the diversification of classroom functionalities. Traditional classrooms primarily serve as venues for teachers and students to engage in singular teaching activities within predetermined timeframes and spaces. However, the new teaching paradigm supported by network technology and social media can extend the classroom to any location with network access, catering to the diverse learning needs of individuals for anytime, anywhere open learning<sup>[2]</sup>. This approach epitomizes the concept of lifelong learning and furnishes technical support for cultivating a learning-centric society.

The innovative outcomes of educational technology are also manifested in teachers' daily training and professional development<sup>[3]</sup>. As high-quality online teaching resources are shared across various regions, countries, and even fields worldwide, it inevitably facilitates the cross-regional and international flow of high-quality teacher resources, leading to the convergence of high-caliber educators in top-tier schools and institutions. Leveraging the innovation and utilization of educational technology, Internet information technology should be adeptly utilized to advance and enhance distance education in China, which not only contributes to China's educational endeavors but also meets the societal demand for comprehensive cultural development. Tailoring Internet information technology and new media network technology to suit the specific needs of distance education teaching in China is imperative based on the prevailing circumstances.

## **2. Discussion of the concept**

### **2.1. The application of educational technology**

The concept of educational technology can be understood as the theory and practice of employing modern information technology to design, develop, utilize, manage, and evaluate learning resources and processes. This includes the theoretical basis of educational technology, media and teaching, development and application of teaching resources, theory and practice of teaching processes, teaching design and development, distance teaching technology, teaching evaluation technology, and more<sup>[4]</sup>. Educational technology encompasses all technical means and methods used in educational and teaching activities. The essence of modern educational technology lies in utilizing advanced educational ideas, methods, and technical means – especially information technology – to create resources, processes, and supporting environments conducive to effective learning and sustainable development of abilities.

### **2.2. The development of educational technology**

Educational technology is dedicated to advancing education. As the theoretical framework of educational technology gradually becomes more independent, the convergence of education and technology lays a solid foundation for shaping the theoretical framework of educational technology<sup>[5]</sup>. With the ongoing evolution of technical tools, computer network technology, and communication technology play pivotal roles. Consequently, educational technology is poised to seamlessly integrate network and communication technology into everyday teaching practices. Occupying a critical developmental arena within the nation, educational technology swiftly incorporates emerging high-tech advancements into educational practices. It intertwines with other developmental sectors to propel reforms within the education system, fostering equity in education and sustaining adaptability within the educational milieu. Leveraging data as a novel production factor, educational

technology endeavors to drive digital transformation, intelligent upgrading, integration, and innovation within the realm of education, thus bolstering its high-quality development. In terms of policy orientation, the utilization of technology to enhance the high-quality development of education emerges as a prevailing trend in educational reform and innovative progression. Consequently, it is imperative to continue scrutinizing the integration pathways and models of new technology within education for future developments.

### **2.3. Innovation in educational technology**

Educational technology revolutionizes the concept of education, which is dynamic and evolves with the times. It is intricately linked to specific historical periods and social conditions, embodying distinct characteristics of its era<sup>[6]</sup>. Education is continually shaped by factors such as social economy, politics, science and technology, and culture, reflecting people's needs, purposes, motives, emotions, and aspirations. It encompasses the understanding and viewpoint of fundamental issues such as the function of education, the object of education, models for talent training, educational processes, and methods. Education progresses in tandem with the development and changes of the times, adapting to evolving societal needs.

System innovation, a cornerstone of educational progress, involves consciously creating a new social system conducive to the advancement of human society through collective social practice. According to the theory of the Austrian economist J. A. Schumpeter, innovation does not necessarily entail the complete reconstruction of institutional elements. Rather, it involves recombining original elements to form new institutional systems and functions. In cases where there is a significant lack of institutional elements, the old system can be transformed into a new one by integrating new institutional elements with existing ones.

The profound impact of innovation in educational technology on practical application is evident. The comprehensive integration of information technology into education, often termed educational informatization, offers favorable opportunities for driving educational reform and development. However, many educational programs currently prioritize the development of curriculum materials and the organization of learning content, often overlooking a fundamental aspect of learning – the student's learning patterns. There tends to be an excessive emphasis on imparting theoretical knowledge, while practical cases for observation, investigation, and analysis are neglected.

To address this issue, it is crucial to structure educational technology courses in a more student-centered manner. This involves integrating ample theoretical knowledge with students' learning habits. Such an approach facilitates more effective analysis, discussion, and explanation of professional cases, striking a balance between theory and practice. Bridging the gap between theoretical understanding and practical application ensures comprehensive learning experiences for students.

## **3. Retrospect and prospect**

In the new era, the evolution of educational technology with distinctive Chinese characteristics continues to exhibit positive momentum overall. However, we must confront new missions, opportunities, challenges, and trends. It is essential to deeply grasp the fundamental principles governing the development of educational technology and choose the appropriate developmental trajectory.

The future advancement of educational technology must align with the socialist path of educational technology development tailored to Chinese characteristics. This entails nurturing exceptional talents crucial for socialist modernization, prioritizing service to the nation's strategic imperatives, adopting a broad perspective on educational technology, expediting the establishment of a theoretical framework for educational technology infused with Chinese characteristics, and accelerating revolutionary innovation in educational technology. This

approach ensures that educational technology in China remains at the forefront of global progress, addressing the unique needs and aspirations of the nation.

## Disclosure statement

The author declares no conflict of interest.

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