

# ***The Performance of Educational Informatization and Influence on Educational Equity in China***

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**Abstract:** Within the context of the “Internet +” era, innovative teaching platforms are continuously improved and optimized, and information technology assists schools in improving the quality and efficiency of education, achieving a harmonious development of science and education. This article adopts literature review to gain an in-depth understanding of the current situation of educational informatization in promoting educational equity. Starting from the perspective of educational informatization, the article first explains the concepts of educational informatization and educational equity, then traces their development process to gain a comprehensive understanding of the progress and current situation. Finally, the article discusses the impact of educational informatization on promoting educational equity, analyzing the existing problems to grasp the historical context and recognize the current situation, which is of significant importance for further leveraging the advantages of educational informatization to promote the development of educational equity. Through the study of educational informatization, it can be seen that in the era of comprehensively building a well-off society, educational informatization is like a blazing torch, igniting the transformation of education and schools, where educational equity is brought into reality in terms of opportunities, conditions, processes, and results, just like the sun shining.

**Keywords:** educational equity, educational informatization, Internet +, China education

## **1. Introduction**

Evenhanded schooling is a fundamental starting point for social decency, and advancing value is a basic training strategy in our country. Educational informatization is thought to be an important way to make education more equitable. It has forever been a focal point of China’s fundamental schooling change and improvement, as it is firmly connected with the development of a top-notch schooling system in the nation and mirrors the quest for instructive informatization in China. The era of education informatization 2.0 has begun in China, in which education informatization has deeply impacted teaching. Inside the “Web +” period, creative showing stages are ceaselessly improved and upgraded, and data innovation helps schools work on the quality and effectiveness of training, accomplishing an amicable advancement of science and instruction. Instructive informatization has shown an undeniably huge job in advancing social advancement, improving showing quality, and guaranteeing instructive value. This article takes on a writing survey research strategy to acquire a top-to-bottom comprehension of the momentum circumstance of instructive informatization in advancing instructive value. Applicable writing is evaluated to break down the hypothetical and

pragmatic angles. According to the analysis, existing theoretical research primarily focuses on examining the meaning of educational equity and the mechanisms by which informatization promotes educational equity. The practice of informatization in the equitable distribution of basic educational resources, innovative classroom teaching models, precise educational practice decisions, and promoting the flow of quality educational resources are the primary areas of focus of the existing research at the application level. Beginning according to the viewpoint of instructive informatization, this article initially makes sense of the idea of instructive informatization, then follows its improvement cycle to grasp the general advancement and current circumstance, and lastly talks about the effect of instructive informatization on advancing instructive value. The investigation means to get a handle on the verifiable setting, perceive what is going on, and underline the significance of utilizing the benefits of instructive informatization to advance the improvement of instructive value. In the era of comprehensively building a well-off society, the study of educational informatization reveals that educational informatization acts as a blazing torch, igniting the transformation of education and schools and making educational equity shine like the sun in terms of opportunities, conditions, processes, and outcomes.

## **2. Concept of Educational Informatization and Educational Equity**

### **2.1. Education**

To elucidate what education is, let's borrow the words of two Western sages. The first one is the world's second smartest person, Karl Marx, who described education as a social phenomenon and a unique activity of human consciousness. It is a specific form of transmitting experience that is unique to human society. The other sage from ancient Greece is Socrates, who defined the purpose of education as 'cultivating talent for governing the country' and stated that education encompasses teaching virtues and broad and practical knowledge. Its essence lies in awakening and developing the inner world of individuals. Considering China's national conditions, education is a social activity aimed at cultivating well-rounded socialist successors by transmitting social and production experiences.

### **2.2. Educational Informatization**

In the context of social informatization, the term "educational informatization" encapsulates the introduction and application of information technology in the field of education. Many scholars in China have put forward their views on what educational informatization is: The so-called educational informatization refers to the widespread use of modern information technology in education, the development of educational resources, the optimization of the educational process, and the cultivation and improvement of students' information literacy to promote the modernization of education [1]. Educational informatization refers to the active application of information technology in various aspects of education and teaching under the guidance of advanced educational thought. It involves in-depth development and extensive use of information resources and aims to cultivate innovative talents that meet the requirements of the information society, accelerating the realization of educational modernization [2]. Educational informatization refers to the comprehensive use of information technology as a basic element in the education system, including the informatization of the educational environment and the informatization of the processes of teachers and students [3].

These definitions clarify the main content of educational informatization: it is a dynamic development process that aims to widely integrate modern information technology into all areas and processes of education and teaching. Its ultimate goal is to accelerate the realization of educational modernization.

Educational digitization refers to the application of information technology tools in teaching to digitize all aspects of the teaching process, thereby improving teaching quality and efficiency. In the context of digital teaching, various factors such as concepts, organization, content, mode, technology, evaluation, and environment are expected to be digitalized [4].

### **2.3. Educational Equity**

The 2030 Agenda for Sustainable Development emphasized that access to quality education is fundamental to improving people's lives, and included ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all as one of the goals [5]. At the macro-level of equity, Swedish educationist Torsten Husen thought that it includes three aspects: equal starting points, equal opportunities during the process, and equal outcomes [6]. This article believes that education equity means that students have equal access to education opportunities, are treated fairly during the educational process, and learn the same knowledge. After completing their education, students can achieve comprehensive and full development.

## **3. Current Development of Educational Informatization in China**

### **3.1. Application and Development of Education Management Systems**

Educational management systems involve school management, teacher management, and student management.

With the formulation of China's strategy for becoming a strong nation in science and education and against the backdrop of the era of informatization and big data, many universities have developed student information management systems that can fulfill basic functions based on their needs and scale. Still, due to the rapid growth and updating of student information data in domestic universities, information management systems face limitations and practical implementation issues, making it challenging to meet the comprehensive student management requirements.

Sui Yu pointed out that it is essential to carefully analyze and study the design and implementation of student information management systems in higher education institutions, address various problems in the current design and implementation process [7], and enable it to play a more critical role in student management in higher education institutions, fully leveraging the advantages of this system to win more opportunities for school development. Dang E'e proposed focusing on the application of big data in student information management systems in higher education institutions [8], striving to create a management platform that is targeted, scientific, and functionally complete. Currently, many domestic schools widely adopt educational management systems, but there are still certain difficulties in their application in some rural areas and small schools. This is mainly related to factors such as the uneven distribution of educational resources, limitations in teaching staff, and equipment conditions. Therefore, further promoting the widespread application of educational management systems, especially in remote and rural areas, remains an important issue."

### **3.2. Application and Development of Online Learning Platforms**

The concept of Massive Open Online Courses (MOOC) has become a hot research topic in domestic and international education circles since 2008 because it promotes the sharing of global excellent resources and the development of higher education [9]. In 2013, various MOOC platforms were organized by higher education institutions, commercial Internet companies, and governmental departments began to emerge [10].

The number of registered users of China's online learning platforms has shown rapid growth. This reflects the demand for online learning and the recognition of educational informatization. However,

although the popularity of online learning platforms is relatively high in urban areas, there are still some limitations in their application in rural and poor areas. Therefore, in the process of further promoting the popularization and application of online learning platforms, it is necessary to solve the problem of the digital divide and ensure the fairness of educational opportunities. So far, a lot of online learning platforms have emerged at home and abroad.

### **3.3. Development of Education Informatization Policies and Systems**

Education Informatization Policy is a set of authoritative guidelines developed by national parties and government agencies to promote the construction and development of education informatization. It regulates national activities related to education informatization and serves as a guiding force for the overall development of the education informatization industry [11]. Research has shown that education informatization policy has a significant impact on educational practices [12]. Therefore, analyzing and summarizing the education informatization policy in our country is not only helpful in clarifying the development process of education informatization but also contributes to a deeper understanding of the essence of education informatization, making it practically significant for future education informatization development.

Since 1999, our country's education informatization policy has gone through five stages: initial exploration (1999-2000), initial development (2001-2005), comprehensive promotion (2006-2010), steadfast advancement (2011-2015), and innovative development (2016-2020). The evolution of policies demonstrates a trend where national administrative agencies are the main issuers and the involvement of multiple authorities is increasing. There are also consistent patterns in the selection of policy instruments, although issues such as unclear boundaries of responsibilities between different entities and structural imbalances in the selection of policy tools do exist.

## **4. The Influence on Educational Equity**

### **4.1. Promote Equity in Education**

In China, the public information infrastructure of the Internet, satellite networks, radio and television networks, and mobile communication networks spread high-quality educational resources to rural and remote areas cost-effectively and efficiently, broaden the availability of high-quality educational resources, and improve educational equity and quality. Present-day distance instruction essentially depends on data innovation to convey and give admittance to excellent assets to address learning issues. It is thought to be an inherent strategy for advancing educational equity [13].

Gigantic Open Web-based Courses (MOOCs) give more noteworthy chances to impeded gatherings to get to great instructive assets [14]. In terms of advancing educational equity, MOOCs are seen as a novel component, method, and driving force [15-17]. Researchers believe that it is possible to promote the deep integration of technology and education by utilizing information technology as an internally integrated entity [18]. This would address fairness in educational starting points, processes, and outcomes. The level of education informatization has reached new heights since the 21st century. The Chinese government has fortified the development of the instruction informatization foundation and advanced the sharing of excellent instructive assets through the formation of "three organizations and two stages." This has improved educational equity and better benefited remote and disadvantaged areas [19].

### **4.2. Prevent Educational Equity**

The rural and underdeveloped areas have weaker educational informatization, hardware infrastructure construction, access to teaching resources, and teacher competence. This situation results in a lack of

fair access to the educational dividends brought about by the development of educational informatization for both teachers and students. Economically developed regions have been the first to board the “high-speed train” of the information age, reflecting the “Matthew effect” of the information age and creating a new digital divide. In the process of developing educational informatization, issues such as high investment without proportional outcomes and the difficulty in generating high efficiency remain prominent. Application bottlenecks and digital divides persist. Additionally, there is a lack of internal motivation in schools to use information technology to support teaching, with external impetus lagging. At the infrastructure and application level, some underdeveloped regions lack targeted training and professional guidance on integrating technology and disciplines, leading to the inability to promptly resolve teaching problems and resulting in the underutilization of many facilities and equipment. At the level of resources and platforms, teachers have weak information retrieval and reprocessing capabilities, making it difficult to find teaching resources that fit student situations. There is a widespread tendency to adopt resources as-is without proper customization or secondary processes [20].

Due to the influence of the market economy on the layout of the education industry and the allocation of resources, high-quality teaching staff and educational resources inevitably concentrate in economically developed areas, leading to an imbalance in the supply of public educational resources between regions, urban and rural areas, and schools. In terms of the supply of digital educational resources, the service providers for renowned teachers and distinctive resources are relatively limited, and there is a serious waste of resources caused by the low-level duplication of educational resources. Quality resources that can improve teaching effectiveness are still in short supply. Furthermore, the intellectual property rights mechanism for the development and usage of digital educational resources is unclear, and the platform construction standards for different regions and schools are not unified, which limits interoperability between platforms and hampers the sharing and circulation of high-quality educational resources.

## 5. Conclusion

Firstly, educational informatization refers to the organic integration of information technology and education, and the process of using information technology in the fields of teaching, management, and services in education. Educational equity means that every individual has equal access to quality education, including the equitable distribution of educational resources, equal opportunities for obtaining education, and fair assurance of educational quality. Secondly, China has increased support for the development of educational informatization, promoting the construction and application of digital educational resources nationwide. Many schools have introduced education management systems and established online learning platforms, and relevant technology companies are continuously developing intelligent educational tools. China’s educational informatization has transitioned from infrastructure construction to widespread application, providing important technological support and guarantees for achieving educational equity. Lastly, educational informatization has had a positive impact on educational equity. Firstly, the application of educational informatization technology allows high-quality educational resources to overcome spatial limitations and reach various regions, narrowing the digital divide and reducing regional disparities in educational resources. Secondly, the use of online learning platforms and intelligent educational tools provides students with personalized learning opportunities, meeting the diverse learning needs of different students, and facilitating the identification and cultivation of talents.

However, educational informatization also poses new challenges to educational equity. The digital divide still exists, and students in rural and impoverished areas still face difficulties in accessing and utilizing information technology. At the same time, the application of educational informatization technology also requires the support and capacity building of teachers to fully unleash its potential.

Therefore, further promoting the impact of educational informatization on educational equity, requires joint efforts from the government, schools, and society. The government should increase investment, promote the construction of educational informatization infrastructure, and provide teacher training. Schools should plan and utilize educational informatization resources fairly to ensure equal distribution and utilization of resources. Various sectors of society should provide support and assistance, forming a co-building and sharing educational informatization ecosystem to provide equal opportunities for all students.

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