Investigation and Research on the Status Quo of Informatization Development at Home and Abroad

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Abstract. With the further advancement of the digital age, informatization has become the current most mainstream trend and has attracted widespread attention from the public. As a decisive measure for the country to increase its talent pool and cultivate innovative talents, it plays a vital role in promoting national development and enhancing international competitiveness. This article draws on the strategic measures and policies of French education informatization to analyze the current situation of education informatization in China and look forward to the prospects of the education informatization industry.

1. Introduction to Information

Informatization is the process of developing and cultivating new productive forces based on computer-based intelligent tools, so that they can contribute to the development of social history. Informatization is based on modern networks, communications, and large database technologies. It aggregates various data and elements for specific people to learn, work and live, and at the same time assists humans in making decisions and various human-related behaviors, using information technology, can greatly improve the efficiency of various behaviors and reduce various costs. The informatization concept map is shown in Figure 1.

![Conceptual diagram of informatization](image-url)

**Figure 1.** Conceptual diagram of informatization.
As a branch of informatization, education informatization is currently the most widely concerned. Educational informatization is the effective application of information technology to teaching management and scientific research, focusing on the development and utilization of educational information resources, improving information literacy into the educational goals, and cultivating talents who adapt to the information society. Informatization of teaching is the core content of informatization of education. It modernizes teaching methods and scientific and technological teaching methods, and comprehensively uses modern information technologies such as multimedia, computers, big data, and artificial intelligence in the education process.

2. French Informatization
As the most advanced educational informatization in Europe, France is also one of the first countries to promote educational informatization to the national revitalization policy. It has a role model for all countries in the world. France’s educational informatization case provides a good example for the world. The blueprint is for reference by countries. This is a good reference for my country's current education information construction.

2.1. French Information Process
As early as the 1960s, the French government formulated a plan for computer development; and since the 1980s, information technology was not yet mature and was introduced into school education; in 1985, the French Ministry of Education began to promote "human People’s learning computer program; In 1995, the multimedia teaching development program was launched to promote the development of multimedia teaching from kindergarten to university; in 1997, the French government proposed the “Governmental Action for the Information Society (PAGSI)”. The education system bears two important responsibilities. It is to enable every young person to master the information and communication technology needed for personal career and life in the future when graduating from school. The second is to use rich multimedia resources to carry out teaching; in 2002, the French "Information Technology Strategy Committee" published "Schools and Information Society" "Report, promoted "digital campus" in colleges and universities since 2003, and encouraged distance education. In 2005, information literacy was included in the core literacy content of French basic education. Entering the 21st century, the French Ministry of Education is committed to establishing a "trust-based school", taking information development as an important means and goal.

2.2. Digital campus strategy
In May 2015, France formally established the "Digital Campus" education strategic plan at the Digital Education Symposium. This strategy, as the information strategy of the new era in France, includes teacher informatization qualification training, full coverage of informatization equipment and resources, and Information technology incubation and innovative talent training program is estimated to invest 1 billion euros in digital education and resource equipment in three years. In September 2015, 600 schools nationwide were included in the digital education system, and the teacher information quality training project was launched in an all-round way. In 2016, with the support of the government, the digital education system has covered a quarter of all junior high schools and 1,800 primary schools in France. The educational resource platform provides a wealth of multidisciplinary online education resources for teachers and students in primary and secondary schools. Immediately, the French Ministry of Education and the French Investment Agency jointly proposed the "Innovative Digital School and Countryside" plan to support the development of digital education innovation in rural primary schools. In September 2017, France further launched a plan to fully equip students with mobile digital learning devices. The schematic diagram is shown in Figure 2.
While France’s “digital campus” strategy promotes the development of educational informatization, resources, equipment and innovation, it also strengthens the protection of educational information. On June 20, 2018, it promulgated relevant laws on the protection of personal information, specifically responsible for education data Approval and supervision of statistics, preservation and use; plans to establish a digital data ethics and expert committee in the Ministry of National Education, responsible for observing, evaluating, and publishing the use of educational data.

3. China Information Technology
After the successful convening of the 19th National Congress of the Communist Party of China, in order to thoroughly implement the spirit of the 19th National Congress of the Communist Party of China, my country has rapidly accelerated the pace of educational informatization and promoted the journey of building an educational power. Educational informatization has entered a new historical stage. At the same time, in accordance with the "China Education Modernization 2035" action plan, the Ministry of Education launched the "Education Informatization 2.0 Action Plan" to basically achieve the development goal of "three comprehensives, two highs and one large" by 2022.

3.1. The degree of informatization of Chinese universities
As the innovation points and vanguards of informatization, universities and colleges of various kinds can better reflect the current degree of informatization of education in China. Among them, the allocation of informatization funds and the degree of informatization of teaching are particularly important. The current situation is shown in Figure 3 and Figure 4.

It is not difficult to see from the analysis that higher vocational colleges do not pay much attention to the informatization of education. Compared with 985/211 colleges and universities, there is still a gap in the degree of informatization in ordinary colleges and universities. Generally speaking, the degree of informatization in China The coverage area needs to be improved.
Figure 3. The allocation of educational funds by universities.

Figure 4. The use of educational platforms in various universities.
In terms of the construction of the education platform, the degree of informatization in the teaching field has not yet reached 80% of the qualified coverage, and there are still colleges and universities that reject informatization. This is a major difficulty for all colleges and universities to complete informatization in the future.

3.2. China's education information industry
In recent years, with the country’s strong support for education informatization, as shown in Figures 5 and 6, the amount of investment in China’s education informatization industry has been increasing, and the Ministry of Education’s expenditure on informatization has also become increasingly large. After the successful convening of the 19th National Congress of the Communist Party of China, the "Education Informatization 2.0 Action Plan" continued to advance, and China's educational informatization prospects are bright.

![China's education informatization investment situation](image)

**Figure 5.** China's education informatization investment situation
Figure 6. China's education informatization expenditures.

4. Conclusion
According to the party’s "14th Five-Year Plan", my country’s informatization will continue to accelerate, and education informatization will advance rapidly, and full coverage of education informatization will be basically achieved by 2022. This means that my country’s informatization industry will continue to prosper and develop. The industry will also continue to increase, and the prospects for informatization will be very broad.

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