

# Analysis on the Development of Education Management and Informatization in China

Wenjun Yu<sup>1,a\*</sup>, and Cunxing Su<sup>2,b</sup>

<sup>1</sup> Yunnan Technology and Business University, 10 Jingguan Road, Songming city, Kunming, China  
Jose Rizal University, 80 Shaw Blvd, Mandaluyong City, Metro Manila, 1552, Philippines

<sup>2</sup> Yunnan Technology and Business University, 10 Jingguan Road, Songming city, Kunming, China

<sup>a</sup>shirly0912yu@gmail.com; <sup>b</sup>457739733@qq.com

\* The corresponding author

**Keywords:** Education management informationization; Wisdom education; Wisdom management

**Abstract:** With the rapid development of information technology, China's education management has made great achievements. However, there are still many problems in the current education management informationization. The outstanding performances are: the education management information standards are not perfect; the degree of intelligence is low; the data lacks systematic and refined management, it is difficult to support timely and accurate education decision-making; the education supervision system is not in place. It is difficult to conduct dynamic supervision. With the popularization and application of new generation information technologies such as Internet of Things, cloud computing and big data, education management will gradually move from the traditional "management and electronic control" mode to the "smart management" mode, and promote the development of education management informationization in China. High steps. This paper analyzes the current status of the new development of education management informatization, and explains the connotation and characteristics of the smart management model in detail, and puts forward specific suggestions for implementing the smart management model.

## 1. Introduction

With the rapid development of China's scientific information technology, the development of China's education management has also been greatly affected. China's education management model has gradually moved from an information management model to a smart management model. This is an inevitable trend in the development of China's education management, effectively promoting education. Better career development. The education management system is an important component of the education system. It plays a coordinating role in the entire education system, promotes the rational allocation of human, material and financial resources in education, enhances the efficiency of education management and the quality of management; and develops educational management information. Transforming the model into a smart management model, achieving high-efficiency education management goals, and effectively implementing a smart management model can not only save costs for education development, but also effectively improve the level of education management, and maximize the market economy benefits of education management. Achieve sustainable development of education.

In the process of education management information construction, the standardized management of education information is directly related to the formulation of education management decisions, which affects the sound development of education business. Due to the lack of a sound education management information system, there are many problems in the education information management of China, which reduces the utilization efficiency of educational resources and causes great losses to human resources, material resources and financial resources in education management. The low level of education informatization standards and the slow progress of standardization exchange construction have made the exchange of educational information resources slower, unable to communicate in a timely manner, the compatibility between various

educational data is not strong, and the format of information data is not enough. Standardization has brought great pressure and burden to the education information management staff in China, which has hindered the smooth development of education information management[1]. Therefore, in view of these situations, it is very necessary for China's education information management department to construct a sound education management standard system enables effective communication and exchange between educational data and information, and promotes better and faster development of educational information management in China.

At present, China's education management informationization work pays too much attention to the use of electronic procedures, but ignores the humanization and intelligence in the management process. It does not regard people as the main body of management work [2-5]; most information management systems let management The staff is in a hurry, complicated data information input, export, update or form a lot of work, so that the machine can not directly replace the labor, because some information management system developers have insufficient understanding of the education management information, leading to the education information management system and The actual educational process cannot be closely linked, and the education management information system is too complicated [6]. The humanization is not fully considered in the design, and the workload of the education management informationization staff is increased in disguise. It can be seen that in the process of carrying out education management informationization, it is necessary to timely discover the defects in the education management work, carry out timely correction and improvement, and provide a strong guarantee for the stable development of education and teaching in China, and let the education management system The data information is automatically processed, and the forms are automatically formed, and the corresponding conclusions and letter summaries are obtained, which makes the education management informationization work more intelligent.

Education management informationization can not be a simple data collection, data collection is only a foundation, the main task is to provide services through data collection [7-9]. However, the current database construction at all levels of education and various types of schools is basically in its infancy, lacking a complete database across the country. Data processing is also limited to simple collection, and there is no deep mining of data collected. The analysis only ends with some simple descriptive statistics, often ignoring the valuable information hidden in the data to improve the management level, can not reflect the actual problems in the education system, and can not provide an effective basis for decision-makers to do a good job in education management [ 10]. At the same time, the data sharing mechanism of the education management system is immature, the information is relatively closed, and the data in different education systems and even the same education system cannot be shared and shared, lacking unified data standards and norms. To make an educational decision, we need to query multiple educational information systems and related external systems based on various heterogeneous data sources. Management decisions are often not based on comprehensive system data, and the scientific and objective nature is greatly reduced. It is difficult for the education administrative department to obtain key data in a timely and accurate manner, which makes it difficult to implement business management and policy supervision. The implementation of policies such as education and finance also lacks accurate data support, which increases the difficulty of implementation.

## **2. Method**

### **2.1 Deep Data Mining to Support Educational Decision Making.**

At present, China's education management informationization construction has achieved initial results, and accumulated a large amount of teaching data and student personal information data. With the advancement of the technology change education process, the smart education environment can perceive the learning situation, identify the learner characteristics, track and record the teaching process, and the data collected by the information management system will be greatly expanded. Through the technologies of big data and cloud computing, smart management integrates various data resources, conducts scientific statistics and analysis, and uses the corresponding data

mining tools to obtain core key information from massive data, discover hidden association rules, and apply these rules. In education management, provide timely, comprehensive and accurate data support for managers and decision makers, improve the scientific nature of education management and decision-making, and avoid empiricism errors.

## **2.2 Emphasis on data Format Standards.**

The standardization and standardization of information data is a precondition for the sharing of data information resources between educational institutions and schools. It is necessary for each educational institution and school to use the same coded data information mark to ensure the uniformity, completeness and accuracy of data information. Because there are many different means of perceiving wisdom education, the standards are also unique, making it difficult to centralize and realize high-efficiency management goals. Therefore, when carrying out the management of wisdom education, it is necessary to ensure data information. Uniformity and integrity, the format of data information must be standardized, so that data information resources can be fully managed [11-13], at the same time, to ensure that data information resources in the smart management system can be effectively shared and collected. Integration, effectively improve the management efficiency of the smart management system, promote the development of education management in China, and achieve the high efficiency goal of education management in China.

## **2.3 Automated Management is Fully Popular, Reducing Management Burden.**

Under the impact of the information technology revolution, traditional education management is gradually moving towards smart management. In the past, manual-based management operations will be transferred to information technology-based smart management platforms. In the management process, the intelligent management system automatically processes various educational data and draws relevant conclusions and information feedback, thereby improving the degree of automation management. The full popularity of management automation will streamline management processes, save management costs, ensure timely feedback on emergencies, and maximize education management efficiency. The popularity of automated management avoids the management loopholes and omissions caused by human factors. On the other hand, it liberates managers from heavy and repetitive labor, gives more play to people's creativity in management, and enhances education management. Level.

## **2.4 Focus on Cost Control.**

Because the smart management construction process involves more perceptual objects, the difference between the information data perceived by each object is large, and the requirements for processing the data information of the perceptual object are also different. If the same perceptual object method is used, It causes a large amount of data information to accumulate, which in turn increases the cost of building a smart management system. Therefore, in the process of building a smart management system, various different sensing objects can be comprehensively utilized, and different actual conditions can be utilized according to the different characteristics of the sensing objects. According to the different needs of data information resources, different sensing objects can be reasonably configured. For example, books and common materials can be marked and perceived by using two-dimensional code and passive radio frequency tags, and should be more intelligent for some important areas. The sensor chip senses the surrounding environment to ensure its security. Reasonable use of sensing technology according to the different characteristics of each sensing object can not only fully utilize the value and function of the sensing technology, but also effectively save the construction cost of the intelligent management system.

## **2.5 Ensure Information Security.**

Information security and confidentiality runs through the entire process of information resource collection, transmission, processing and application. At the Education Management Informationization Work Conference, Minister Du Zhanyuan also pointed out that it is necessary to strengthen data protection and ensure information security [14-15]. A major function of wisdom

education is perception and positioning. From perception to transmission to processing, it will go through multiple links. Most of these links will be wirelessly communicated, which will greatly increase the probability of information leakage. It should be in all aspects of information processing. Be safe and confidential to ensure information security. In the process of building a smart management, we must always put security and confidentiality work at an important position. According to the actual development situation, develop a realistic security strategy, and gradually establish a sound security and confidentiality system to ensure the safe and reliable operation of the management system.

### 3. Conclusion

With the development of information technology, Internet of Things, cloud computing and other technologies, building a smart management system has become an inevitable trend in the development of China's education management information. Through intelligent management, education administrators can monitor the development of various educational businesses within their jurisdiction in real time, remotely, and visually. Education decision-makers can make more scientific decisions based on big data analysis, and maintenance personnel can perform fast and accurate equipment. Problem diagnosis and repair. Ensure the standardization and standardization of data information in the education management system, and promote the better development of education management informationization in China.

### References

- [1] Wang Nan. New Development of Education Management Informationization: Towards Smart Management [J]. Curriculum Education Research, 2016(30).
- [2] Zhao Jiangchuan, Liu Yuping. Analysis of Education Management in Various Countries and Countermeasures for the Development of Teaching Management in China[J]. Western Leather, 2016, 38(6): 127-128.
- [3] Liu Bangqi. From Digital Campus to Smart Campus--The Status Quo, Strategy and Trend of Promoting Campus Information Development in China[J]. Education Information Technology, 2016(11):34-37.
- [4] Wu Junlin. The Dilemma and Path of Education Management Informationization in the Age of Big Data[J]. Digital World, 2018(6).
- [5] Li Xiangyang. Research on the Innovation and Development of University Education Management Informationization Based on Big Data Environment [D]. Xinyang Normal University, 2017.
- [6] Zhao Xinglong. Construction of Wisdom Education System from the Perspective of Core Literacy [J]. Modern Distance Education Research, 2017(3): 34-43.
- [7] Han Xuewei, An Tao. Visualization Research on the Hotspots, Subjects and Development Status of Educational Informationization in China[J]. Journal of Contemporary Education Science, 2017(4): 66-72.
- [8] Wang Jianzhong, Han Weizhu. Regional Differences in the Development of Basic Education Informationization in China—Based on the Data Analysis of China Education Statistical Yearbook from 2011 to 2014[J]. Inner Mongolia Science and Technology and Economy, 2017(9): 46-49.
- [9] Ma Yuhui, Bai Maolin, Zhou Zheng. Exploring the Development Path of Artificial Intelligence Education Application in China in the Age of Wisdom Education—Interpretation and Enlightenment of the Report of "Planning the Future, Meeting the Age of Artificial Intelligence" in the United States[J]. Research in Audio-Visual Education, 2017( 3): 123-128.

- [10] Chen Lin, Sun Mengmeng, Liu Xuefei. The Origin of Wisdom Education[J]. Research in Audio-Visual Education, 2017(02):15-20.
- [11] Lei Chaozi. Education Informationization: From 1.0 to 2.0——The Trend and Thinking of China's Education Informationization in the New Era[J]. Journal of East China Normal University(Education Science Edition), 2018, 36(1):98- 103.
- [12] Alia Abybra. Analysis of the development of infrastructure in the process of education informationization[J]. Talent Resources Development, 2017(4): 44-44.
- [13] Wu Wei, Xing Danxia, Jiang Longyan. Taking the Road of Educational Informationization with Chinese Characteristics——Interpretation of Education Informationization 2.0 Action Plan[J]. Research of Audio-visual Education, 2018, v.39; No.302(06 ): 34-36.
- [14] Liu Yaqi. The Development Status and Countermeasures of Education Management Informationization in China[J]. Examination Weekly, 2016(38):108-108.
- [15] Zhang Yu. Research on the status quo and countermeasures of preschool education informatization in Henan Province [D]. Henan University, 2018.