

# Research on the Construction of Public Cultural Service Platform of Smart Library

Yu ZHAO

Zhongkai University of Agriculture and Engineering, Guangzhou, Guangdong 510225, China

**ABSTRACT.** As a public cultural service platform, the library needs to actively innovate the original management mode under the new situation. Smart Library, as a new mode of library development in China in the future, is mainly composed of smart community system, intelligent learning system and economy system, which is of great significance to promote the construction of smart city in China, and can bring people different intelligent experience. This paper mainly analyzes the problems involved in the construction of the public cultural service platform of smart library, so as to promote the establishment of smart library in China and further improve the intelligent service of the library.

**KEYWORDS:** Smart library, Public cultural service platform, Smart community system, Smart learning system, Smart economy system

## 1. Introduction

With the continuous improvement of people's living standards in China, the demand for the library is increasing. In the new situation, the construction of smart library is the focus of national research, which can meet people's diverse learning needs. At present, China is constantly improving smart library with transformation from technology to management, service and community. It can be seen that smart library is the development trend of the library in China in the future. This paper analyzes the related issues of the construction of public cultural service platform of intelligent library.

## 2. Design Idea on Construction of Public Cultural Service Platform of Smart Library

### 2.1 Idea of the Framework Design

It is one of the framework design ideas for the public cultural service platform of the smart library that whether the overall operation information, reader service, key index data and the utilization of library resources can be comprehensively presented to the managers so that the managers of the library can make intelligent decision on resource allocation. In addition, for the system managers, the framework design also needs to provide all information systems, network system operation state and resource utilization to the system managers in time, so that the system managers can achieve a unified screen control to the library. For readers, the framework design asks the construction of the public cultural service platform of smart library to meet the needs of various terminal devices, such as digital TV, tablet computer, smart phone, etc. It is necessary to ensure a variety of information push channels so as to meet the information push requirements through website, social network, mobile library, microblog library and other links [1].

### 2.2 Content of the Framework Design

The framework design is overall guided through mobile Internet technology, cloud computing technology and big data analysis technology, which need to be coordinated with the original human environment and infrastructure of the library. In the top-level design, it includes data center architecture, information communication network architecture and security architecture. In terms of the design, it mainly includes the design of service support platform, cloud computing platform and information open platform, to ensure that the platform is designed for all people, different terminal devices and different information push channels. In addition, in the framework design, we should ensure the diversification of service objects and service methods, among which service objects should cover government departments, public places, street communities, citizens' learning and high-tech industries.

### **3. The Implementation Path of the Construction of Public Cultural Service Platform of Smart Library**

#### ***3.1 The Construction of Smart Community System***

##### ***3.1.1 The Construction of All-Day Unattended Library***

All-day unattended library needs to reach every public domain. The construction of all-day unattended library is an indispensable part of the construction of intelligent service network. Especially in densely populated areas, such as railway station, bus station, bus station, airport, etc., all-day book borrowing and returning terminals can be set up to connect the all-day unattended library with the borrowing and returning terminals and build a wider network service platform. The public cultural experience area, which combines the digital experience space, reading space, leisure space and interactive learning space, can be set up in the all-day unattended library, and designed in modular mode, the fast reading is assembled and implemented in different physical environments. For example, the all-day unattended library established in Wenzhou City brings residents different reading experience [2].

##### ***3.1.2 The Construction of Smart Interactive Large Screen***

The function of smart interactive large screen is very significant. With the help of smart interactive large screen, the library can extend existing resources to the area full of readers, and can also push the electronic resources such as image and text information to readers regularly, and readers can get the library information resources they need in the shortest time to meet their personalized reading experience. In the new situation, the developers of smart interactive large screen have constructed many personalized public cultural programs in order to bring people better reading service experience. The main characteristics of them are as follows: firstly, more innovative in the form of expression. The so-called form innovation is the combination of local unique architectural style and customs. Innovation in the form of expression can change the same outdoor multimedia by and large, solving the problem of people's visual fatigue; secondly, more innovative in the content of expression. The diversity for the content of expression can be the combination of big character slogans with image and text or can also be a detailed elaboration of a certain problem. Designers need to carefully figure out the public's acceptance mentality if they want to further innovate the content of expression; thirdly, more innovative in the use of media. The setting of outdoor media can be combined with the local surrounding environment, population density, etc., to ensure the scientific rationality of the setting location, proportion to size and spacing density of outdoor media. This can bring people a comfortable and warm feeling and also bring a better urban construction [3].

#### ***3.2 The Construction of Smart Economy System***

In the process of library construction, with the help of advanced technology, the innovation and development of corresponding module business can promote the local social and economic development and improve the core competitiveness of urban economic development. The smart information analysis system in the smart economy system can mine and analyze the text and semantics of network data, and can provide comprehensive and detailed information management services for different industries. Building a personalized demonstration site of smart library can promote the development of local high-tech enterprises. With the help of smart library, high-tech enterprises can obtain first-hand information, such as the latest scientific research in colleges and universities, so as to provide intellectual services and asset-based protection for the development of enterprises. At this stage, both Amazon and Google choose to merge and acquire a variety of businesses. The M & A here refers to the M&A on intellectual property, effectively avoiding the property disputes in business activities. The awareness of intellectual property protection of domestic enterprises needs to be improved. The construction of public cultural service platform of smart library can bring together a large number of patent protection data at home and abroad, and push them to all regions with new and high technology with the participation of professional patent applicants, so that high-tech enterprises can quickly retrieve information about intellectual property. In this way, domestic enterprises can avoid being affected by the international patent environment when they participate in foreign business activities, and at the same time, they can also protect their own intellectual property rights. Personalized information service has two aspects, one is personalized service, the other is information service. The library implements the personalized information service with the help of the Internet communication function. For example, the research and development of subject in a certain area, subject tracking and locating, the novelty search of subject and the appraisal of the scientific research achievements are all inseparable from the personalized information service of the library. In addition, users can also obtain their own secondary and tertiary document products through the network, which most probably meet users' needs for the personalized information service [4-5].

#### ***3.3 The Construction of Smart Learning System***

Smart network learning system is not limited by time and space, but has strong interaction, covers more resources, and is more convenient to use. Smart learning system is not only a model of school education innovation, but also an effective model of comprehensive education and lifelong education. The network education has been unanimously recognized by the education departments in China. Until 2015, China has basically built the education resources and public service system with the network resources as the core, and learners can obtain the best education resources with the help of this platform. The education departments have also clearly proposed that the smart learning system should go deep into pre-school education, compulsory education, vocational education, higher education, special education and continuing education to meet the needs of different education fields. In the construction of smart library, ensuring the participation of the education departments can bring the education resources with the smart network as the carrier into thousands of households, and people can learn with the help of the screen terminal through MOOC. The ultimate goal of the construction of smart learning system is to meet the requirements of lifelong learning of the whole people. Many kinds of learning resources, such as text, animation, audio and video, lecture, digital simulation and so on, are included in the library learning resource base to meet people's diversified learning requirements. The construction of smart learning system can bring together excellent cultural resources and truly realize resource sharing, which is of great significance to improve the cultural quality of the whole people [6].

#### 4. Conclusion

In conclusion, the construction of public cultural service platform of smart library is a new trend in the future development of library. The platform combines traditional positions, mobile applications and the Internet, which can improve the level of smart service. In the public cultural service platform, it can meet the demands of all-round lifelong learning, which is an innovation of management concept and mode in library field.

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#### References

- [1] Yu Kaixuan. Research and Application on the Construction of Jiangxi Library Service System in the Internet of Things. *Library Research*, Vol.50, No.1, pp.87-91, 2020.
- [2] Cai Lu, Xukai. Research on the Cloud Platform Construction of Digital Library -- Taking the WeChat Cloud Platform Construction of Hunan Library as an Example. *Computer and Information Technology*, Vol.27, No.4, pp.51-53+56, 2019.
- [3] Gong Yajun. Research on the Construction of Public Cultural Service Platform of Smart Library. *Library Work and Study*, No.12, pp.4-8, 2015.
- [4] Liu Linlin. Study on the Practice and the Future Development of Service Innovations of Frontier Libraries in Northeast. *Library Development*, No.12, pp.58-62, 2013.
- [5] Mo Lizhen. The Development Direction of Library in the Construction of Public Cultural Service System. *Journal of Kaifeng Institute of Education*, No.2, pp.223-224, 2015.
- [6] Yin Litang. The Concept, Characteristics, Composition and Platform Construction of Smart Library. *Journal of Foshan University(Social Science Edition)*, No.4, pp.82-86, 2014.