

# Research on the Remolding of Reader Service Mode in Smart Library

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## Abstract

In recent years, the concept of smart library has gradually become a new research hotspot. To build a smart library, it is necessary to combine closely with the times, innovate the reader service concept and thought of the library by modern technology means, and realize the long-term development of the library. This paper introduces the definition of smart library and the development trend of smart library in China. On the basis of analyzing the problems, it puts forward some suggestions to improve the user experience of readers.

## Keywords

Smart library, Reader, Service model, Remolding.

## 1. Introduction

With the rapid development of information revolution and science and technology, intelligent technology is gradually changing our way of life. In the 12th Five-Year Plan, China made it clear that it will further accelerate the decision to cultivate and develop strategic emerging industries. As an important emerging industry, Internet technology lays a foundation for libraries to realize the deep interaction and integration between books, books and people, and people. The construction of the three-dimensional interconnection of the intelligent book management system is conducive to the realization of transparent information services, the connection between users and libraries is closer, promote the humanized and intelligent development of book services. In order to better apply the concept of smart library into practice, maximize the reading convenience for readers, and attract more people to pay attention to smart library, this paper studies the relationship between smart library and user service, and puts forward relevant suggestions and measures.

## 2. Smart Library

Smart library research started at the beginning of the 21st century. As early as 2001, Queensland State Library of Australia built the smart library network management system, creating the world's first smart library integrating physical entity and virtual space. In 2003, scholars from the University of Finland put forward the concept of smart library for the first time, which pointed out the construction requirements of smart library. Compared with European and American countries, China's smart library development process is still relatively slow, still in the initial stage.

### 2.1. Concept

Driven and led by emerging technologies such as big data, artificial intelligence and cloud computing, smart libraries have become the focus of research in the industry. At present, there is no clear definition of the concept of smart library in China, and different researchers judge the role of smart library from their own perspectives. However, no matter from which perspective to view the smart library, it still has some common characteristics. From the

perspective of technological development, smart library is a new type of library developed on the basis of Internet of things and digital library, which has the dual characteristics of Internet of things and digital library.

To sum up, intelligent library is a kind of advanced evolutionary form that library proposes for its future development after realizing in-depth interaction and integration in various fields. It is not only the concrete embodiment of the application of information science and technology in the field of library, but also the development and promotion of library based on the service function of traditional library. In short, smart library = library + Internet of Things + cloud computing + smart devices, that is, smart library realizes smart management and services through the Internet of things. As a service organization, the most fundamental job of library is to provide more convenient services for readers through the mutual integration of librarians and intelligent equipment, and the ultimate goal is to make the library better understand the needs of readers.

## 2.2. Features of Smart Libraries

Smart library is a combination of modern advanced information science and technology, green awareness and library theory. The three characteristics of smart library are interconnection, efficiency and convenience. These characteristics do not exist in isolation, but are interrelated, among which interconnection is the foundation, efficiency is the core and convenience is the purpose.

First, comprehensive connectivity. With the rapid development of Internet of Things technology, everything in the library can be interrelated to realize comprehensive perception. All kinds of literature information, reader and librarian information are connected together, which can expand the function and service scope of library and help to expand the service scope of readers through the interconnection of library and library. In particular, the application of intelligent management system and intelligent robot not only strengthens the close relationship between objects, but also provides more convenient and efficient services for readers.

Second, high-quality intelligent services. The library's intelligent service is centered on the user's intelligent production process, and is committed to cultivating the user's ability to harness, apply and innovate knowledge. Through the construction of smart environment and smart management, more librarians, experts and readers can participate in smart services and provide readers with more rapid service responses. The "wisdom" of smart library is mainly reflected in the way of providing services for readers. Through the application of advanced computer technology, it tailors the services required by readers, so that readers can obtain good user experience and further promote the transformation of knowledge into productivity.

The third is deep intelligence detection. The smart library is the premise that the library can guarantee the operation of all the systems in the library and realize self-management under the premise of reducing or completely not under the control of librarians. When readers perform various literature services, they can screen the retrieval results, and can use data mining and other technologies to conduct correlation analysis on the final results, so as to provide readers with visual analysis results. The intelligent system can also deeply insight into readers' interests and hobbies, improve the accuracy of analysis results, and become readers' good friends.

## 3. The Change of Reader Service Mode by Smart Library

The change of the library environment will make the readers' reading habits and use ways change. In the process of such constant changes, the readers will also put forward higher demands for the reader service of the library in order to meet their own needs, and the library

should also make corresponding adjustments in order to meet the needs of readers as far as possible. Under the environment of smart library, it is necessary to establish a new service mode centering on readers, so that readers can feel the significant improvement of service attitude, service mode and service content.

### **3.1. Expand Reader Service Content**

The traditional library is mainly used as a centralized management place for books, and the service staff of the library is responsible for the basic work such as borrowing and returning books, classification and consultation, etc., instead of providing targeted special services to readers. These targeted services are not only based on the work content of library staff, but also need the support of intelligent service system. Making the operation system of the library intelligent can not only support the library to expand its service scope, but also deepen the service depth. In terms of service content, the reader service based on the smart book environment should keep the basic service content of the library and constantly optimize and upgrade the service efficiency and level. On this basis, the service content can be widened, which can not only meet the increasing needs of readers, but also improve the efficiency of readers' library reading.

### **3.2. Promote the Diversification of Reader Service Methods**

The traditional library service is subject to many restrictions, and the scope of service provided by the staff of the traditional library service is limited. It is difficult to realize one-to-one consultation, which often leads to the waste of too much time for readers. This kind of traditional consulting model cannot meet the needs of readers for accurate book search. Based on advanced information technology, smart library enables readers to consult and search directly at any time and any place and obtain knowledge services of the library. Based on such intelligent services, readers can identify their knowledge resource needs, independently complete a series of book search, borrowing and reading actions, and gradually turn passive services into active services to improve readers' service satisfaction.

### **3.3. Realize the Socialization of Readers' Service Objects**

The transformation of smart library mainly starts from university library and public library, which are mainly faced with college students, while public library is mainly faced with social groups. The readers of smart library should be popular and socialized, and every social member has the right to enjoy the book resources and library services. In the process of building smart libraries in the future, they should not be restricted by limited thoughts, but should break through the regional and identity restrictions, open to the public, and promote the formation of a social atmosphere and trend for the whole people to study and read.

## **4. Problems of Smart Library Construction and Measures to Improve Reader Service Mode**

The main purpose of library is to provide readers with the places and reading resources they need for reading. The main service and work target are still readers themselves. Therefore, the construction of a smart library should start from the perspective of readers and be based on satisfying the needs of readers, so as to maximize the interests of readers and realize the value of the library. There are still some problems in the construction of smart libraries in China, which need to be improved by centering on readers.

### **4.1. Problems of Smart Library Construction**

First, data security protection and efficient management. In the process of realizing the deep interconnection between library and library, network and network, and people and objects, there are many uncertainties in the collection, storage and use of diversified information in the

intelligent system, and natural disasters and network hardware are the important causes of data loss. However, due to the aging of the hardware infrastructure or the lack of timely update, the network transmission efficiency in the library will be low, resulting in system crash and data loss.

Second, government policies. In the process of realizing comprehensive interconnection, the circulation of books and materials may cause infringement problems, which in turn will affect the inter-library database and literature sharing, which is not conducive to breaking the pattern of "information island". The Internet of Things and a series of information technology development is not perfect, it is likely to cause the leakage of data resources, resulting in illegal and criminal behavior, hindering the smart library to achieve the process of connectivity.

Third, team building. Librarians are the most dynamic part of a smart library. However, due to the uneven quality of librarians at present, it is difficult for them to communicate with each other and waste time and energy in the training of their professional abilities. Secondly, at present, most librarians do not have a deep understanding of information science and technology, which poses great difficulties for the construction and application of smart libraries.

#### **4.2. Measures to Improve Reader Service Mode by Relying on Smart Library**

First, increase the investment in smart libraries. Governments should appropriately increase capital input to ensure the smooth progress of smart libraries, so as to promote the construction process of smart libraries. Smart library can also broaden the channels of fund supply, attract social funds, and then promote the construction of smart library. It is necessary to put people first, meet the diverse needs of readers, set long-term goals, put the construction of smart libraries and other infrastructure at the core, follow the construction system standards of smart libraries, and realize the benign development of smart libraries.

Second, build a smart library service platform. We should give full consideration to the actual needs of special groups, highlight the characteristics of "intelligent service", strengthen the service effect, and realize the rational use of library resources. The resource-sharing service system can be set up based on the cloud platform and the model of "network library service" can be adopted to let users reserve books according to their own schedule or provide personalized service solutions according to their needs, so that users can make their own contributions to the construction of smart library.

Third, we should cultivate high-quality talents in smart libraries. The construction of smart library cannot be separated from the support of talents. The cultivation of high-quality talents in smart library and its construction should be in the stage of synchronous development. It is necessary to improve the talent selection system, integrate the current internal human resources of the library, select the personnel with the management potential of the smart library for training, so as to provide a solid talent reserve for future work, make them have a strong comprehensive quality, and urge them to contribute their own strength in the smart library work in the future.

### **5. Conclusion**

Smart library is an inevitable trend in the new era. The construction of smart library in China is still in its infancy. We should attach great importance to the construction level of smart library, make full use of big data technology and cloud computing, realize resource sharing and cross-department management, and improve reader service as much as possible. We should actively construct the public cultural service system, strengthen the space reconstruction of the library environment, actively adapt to the daily use habits of readers, provide a warm library environment, and provide a high-quality platform for cultural resources for the public.

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