

Research on the Construction Path of Smart Library under the Background of Big Data

Lili Liu, Qing Li

Library of Taishan University, Tai 'an 271000, China.

Abstract: Big data is a hot word at present. With the advent of the era of big data, all walks of life are in the development and utilization of big data technology. As one of the important institutions of cultural information dissemination, libraries also actively apply big data technology to their own management services. Smart library is an innovation of the traditional library service mode, which can better meet the needs of readers and also improve the overall service level of the library to a large extent. This paper mainly studies the construction path of smart library under the background of big data, hoping to provide better services for readers and meet the growing needs of readers.

Keywords: Big Data; Smart Library; Construction Path

Foreword

Library is an important institution of cultural information dissemination, and it plays a pivotal role in the whole social system. With the development of today's society, people have put forward higher requirements for library service. The traditional library service mode has been unable to meet the growing needs of readers, so we need to integrate advanced technology into the library management work, so as to improve the level of library service. With the development of advanced information technology, such as computer technology, network technology, mobile communication technology, multimedia technology and mobile storage, people began to use computers and the Internet to obtain information, and on this basis, an intelligent library was established. With the support of big data, cloud computing, Internet of Things and other new generation of information technologies, the library has realized the transformation from traditional to modern, from closed to open, and realized the seamless connection between information resources, services, management and users, which is the development trend of smart library in the future.

1. Overview of big data and smart libraries

Big data refers to the very large data scale involved, which is characterized by a large amount and various kinds of data. At the same time, big data also has the characteristics of high speed, diversity, complexity and low value density. Due to the huge scale of big data, how to process, analyze and utilize these massive data resources in the current era of big data has become one of the important problems facing the current development of information technology.

Smart library refers to a mode of using advanced information technology, on the basis of collecting and managing book resources, and using network, communication and other means to combine readers' needs with book resources, so as to realize the intelligent service of library. Smart library mainly includes three aspects: one is to realize the intelligent utilization of resources within the library; the second is to realize the intelligence of information communication between the library and readers; the third is to realize the intelligence of library resource integration and service innovation^[1].

Smart library has four characteristics: technological innovation, cross-border integration, sharing among all the people and ecological development.

Technological innovation. In the process of smart library, new technologies should be introduced to promote the transformation of library to wisdom. With the development of the new generation of information technologies such as the Internet of Things, cloud computing and mobile Internet, a series of profound changes have taken place in the field of library. Smart library was born under such a background. The introduction and application of these new technologies have brought revolutionary changes to the management and service of libraries, and also made the intelligent library possible.

Cross-border integration. Smart library is the deep integration of the new generation of information technology and libraries. It integrates digital technology, network technology, mobile Internet, cloud computing, Internet of Things and other information technologies, and realizes the extensive cooperation between libraries and other fields of society. For example, in the field of digital information service, big data analysis and cloud computing technology; in the field of intelligent service, the Internet of Things technology is used to realize intelligent perception, intelligent management and intelligent service. For example, the "handheld library" service based on the mobile phone client allows readers to browse various digital resources such as book resources, electronic journals and educational videos through their mobile phones. With the rapid development and wide application of the new generation of information technologies such as the Internet of Things, mobile Internet and cloud computing, libraries will strengthen cooperation with other fields of society to realize a broader integration and utilization of resources. The cross-border integration of library provides a broad platform for library service innovation.

Sharing by all. In the process of the development of the intelligent library, the digital, networked and intelligent library will break the traditional regional limits, to provide users with a wider range of reading services, and on this basis, through the big data technology and Internet technology will link all involved users, so as to realize resource sharing within the scope of society. Through the full integration of resources, so as to achieve the national reading. In addition, the smart library will also realize user portrait through big data analysis, and carry out personalized information push service based on this, so that all users can enjoy the services provided by the library in the most convenient, comfortable and pleasant way^[2].

Ecological development. Library ecosystem includes four aspects: technology ecology, business ecology, resource ecology and service ecology. Libraries should base themselves on their own characteristics, be open and inclusive, and make full use of various technologies to achieve win-win integration with all parties in society. At the same time, we should strengthen self-construction, constantly improve the level of resource construction, and provide quality services for readers; and build an open development platform to attract more social forces to participate in the construction and development of the library.

2. The influence of the construction of intelligent library on the development of traditional library

The emergence of digital library can not only realize the integration and sharing of collection resources, but also realize the in-depth processing of resources. Through the application of big data technology, it can also realize the in-depth mining of readers' information and data, so as to provide readers with more personalized and accurate services. Based on this, the construction of smart library has brought a certain influence on the development of traditional libraries, mainly manifested in the following aspects:

First, the construction of smart library has changed the collection resource structure of traditional libraries^[3]. Under the background of the construction of intelligent library, the structure of traditional library collection resources has been difficult to meet the readers' demand for knowledge and information. Through the application of big data technology, readers can be provided with more and more valuable information resources.

Second, the construction of the smart library has changed the service mode of the traditional library. In the context of the era of big data, the traditional library service mode has been difficult to meet the needs of readers. Therefore, in the context of the construction of smart library, the application of big data technology can provide readers with more convenient services.

Third, the construction of smart library has changed the way that readers obtain information. In the traditional library service mode, readers mainly obtain information through manual inquiry or telephone consultation, while in the background of the construction of intelligent library, readers obtain information mainly through the network, which makes the ways for readers to obtain information more diversified.

3. Big data, under the background of smart library construction path

3.1 The "reader-centered" service mode

Traditional libraries focus on "collection", but in the era of big data, if libraries want to better play their role, they must achieve a "reader-centered" service mode, so that the library can better meet the needs of readers. Specifically, in the era of big data, in the process of the construction of smart library, we must pay attention to the grasp of the needs of readers, and actively carry out the reader service work. In addition, in order to make readers better enjoy the quality services provided by the smart library, it is also necessary to establish a perfect reader service system. In the era of big data, readers' demand for information shows a trend of personalization and diversification. Therefore, in order to better meet the needs of different readers for information resources and services, the library must establish a perfect reader service system. In the actual construction process, the library can realize the "reader-centered" service mode through the following ways, including strengthening the grasp of readers' needs, improving the reader service system, and carrying out diversified reader service activities. Among them, the establishment of a perfect reader service system is the core of the "reader-centered" service mode. In the era of big data, in order to realize the "reader-centered" service mode, it is necessary to make full use of the big data technology to improve the service level of the library. That is, in the construction of the library, make full use of big data technology to conduct in-depth analysis of the needs of readers, so as to provide readers with more accurate personalized services. For example, in the process of library construction, big data technology can be used to accurately locate readers, and then provide readers with more targeted services according to different readers' needs and preferences for information.

3.2 Strengthen the top-level design and establish an efficient data resource sharing platform

The construction of smart library needs an efficient data resource sharing platform to realize the resource sharing among libraries, which needs to strengthen the top-level design and establish a unified and efficient data resource sharing platform^[4]. Through the establishment of this platform, the data resources of different systems and different departments can be integrated to provide readers with more comprehensive and convenient services. In addition, when building a smart library, it is also necessary to strengthen data integration and resource sharing among various systems. For example, when users borrow activities through the library, they not only need to submit the borrowing information, but also send the borrowing information to the designated mailbox of the library. In this process, readers can obtain the book information through the library website or wechat official account, and then send the borrowed books to the designated mailbox of the library through thWeChatB 1 official account.

Epilogue

In the era of big data, libraries must strengthen the construction of smart libraries if they want to better meet the needs of readers. With the continuous development of information technology, smart library can be said to have become the trend of current library development. It can not only meet readers' needs for literature, electronic books and related information, but also provide readers with more accurate and personalized services through big data technology. Therefore, it is the general trend to build a smart library under the background of big data. Therefore, the construction scheme of a smart library should be continuously improved in combination with the characteristics and development trend of big data technology, so as to provide better services for readers.

References

- [1] Van M. Research on the construction of smart library based on big data platform architecture [J]. Henan Library Academic Journal, 2021,41 (7): 3.
- [2] Zhao N. Construction and service model of smart library driven by big data [J]. Library Journal, 2022,44 (1): 63-null.
- [3] Liu R. Research on the construction of smart library under the background of big data technology [J]. Chinese Science and Technology Journal Database (full-text edition) Social Sciences, 2021 (6): 2.