

# Research on Library Business Management Based on Big Data

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**Abstract:** In the era of big data, information technology has been effectively applied in the development of various industries, and library business management is no exception, which provides more quality library services for the people. In the process of the development of public libraries, the management departments need to give full play to the role of big data, note the major data analysis service, integrate this service with social networks, strengthen the management of library business, train the librarians' ability of data analysis, and further promote the development of libraries.

**Keywords:** Big data; Library; Operation control

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## 1. Introduction

In the rapid development of modern society and economy, the level of information technology has been greatly improved, and China has entered the era of big data. Under the background of big data, great changes have taken place in library management and service work, for the library development has brought great opportunities and challenges, in order to effectively enhance the level of library services and meet the demand of readers' reading needs and access to, the library must use big data technology, effective adjustment and innovation, strengthen management informationization, the service information construction, Further improve the library business management and service level, to provide high-quality, efficient service for readers.

## 2. Big data

In the development and reform of social economy, a lot of new knowledge and technology have been effectively applied in many fields. Big data directly affects People's Daily life, making great changes in their life, study and work<sup>[1]</sup>. Big data is not only a massive amount of information data, but also has a deeper significance. However, relevant scholars have not given an accurate conclusion on the concept of big data, and its qualitiveness has not been recognized by everyone.

In the process of library operation and development, the application of big data technology plays an important role and provides support for the implementation of library business management. The characteristics of big data technology are as follows: First, the information capacity is large. Big data effectively in business management application in the library, traditional library management pattern is just a part of big data business management, users can use big data to get books related to information technology, library management can also use big data released more information, make the library content more rich. Secondly, the diversity of information types. In the process of library business management, a lot of data will be generated, and these data types have a certain diversity. The huge data types will re-form the library big data set. Finally, information data processing is faster. In the process of library business management, the management department can use cloud computing technology to quickly analyze library information and data, and provide accurate data and information for users and librarians.

## 3. Development opportunities of library business management with big data

### 3.1 Change the way library services are provided

In the process of traditional library business management service, managers are generally in a passive state,

unable to provide high-quality services for readers, generally provide more services on the basis of users' active consultation, this service mode can not meet the actual needs of the development of modern society. In order to effectively improve this situation, libraries must pay attention to the application of big data technology, rationally select the scope according to relevant information, accumulate, describe, scan and other electronic information, and provide personalized services and basic information for users after doing all the processing work. For example, information push service is provided to users regularly, and information push is done according to the information searched by users and the content they are interested in.

### **3.2 To enhance library services**

In the rapid development of social economy, library construction must be rationally adjusted, according to the development of modern society, meet the personalized needs of the public, and provide support for the sustained and stable development of library. In the rapid development of the new era, libraries need to constantly improve their own service level and expand the library service content, so as to meet the development needs of The Times, based on which to explore a way to meet their own development needs, and the application of big data technology can achieve this goal. In the process of library construction, relevant departments use big data technology to process and apply various digital resources, provide better services and improve the overall level of library services.

### **3.3 Effective integration of library resources**

In the development of modern society, China's digital library construction is still in a closed state, many digital resources can not be shared, which will bring serious repetitive construction, resource waste and other problems, is not conducive to the smooth implementation of library business management. In order to improve this situation effectively, the library needs to introduce big data technology, effectively solve these problems, realize the sharing of various resources in the library, and provide support for the resource sharing and integration of various libraries.

## **4. Big data library business management issues and challenges**

In the era of big data, library business management has encountered many problems and great challenges, which are embodied in the following aspects: First of all, big data technology plays an important role in library business management. With the continuous growth of all kinds of data and information, readers' reading demands

are diversified and personalized. Therefore, the library storage structure must be reasonable to meet readers' reading demands. Secondly, big data technology has been effectively applied in the library business management mode. Library data will be dispersed to various service and management platforms, which brings great difficulty to data management. Managers often cannot obtain more valuable information in the process of frequent information movement<sup>[2]</sup>. In addition, the management concept of library management personnel still needs to be updated. It is difficult to obtain more accurate information because big data technology cannot be used to serve library data. Thirdly, in the process of library business management, the effective application of big data technology makes the library information and data increase day by day, and the information data presents the characteristics of diversity and complexity. Managers need to ensure the high efficiency and security of library data center information to meet the development needs of the library. Finally, in the era of big data, data library business management growth to a certain value, the library data using value will be decreased, the library need to use the advantage of big data technology, optimization of the traditional business management pattern, sharing, open and cooperative business management mode and service mode, data support, information sharing for the library.

## **5. Optimization measures of library business management in the era of big data**

### **5.1 Build a dynamic procurement platform**

In the era of big data, libraries need to take information resources as the guidance, build a dynamic procurement platform, and constantly improve the overall quality of library business management. In the process of operation, management and service in the library, information resources is one of the foundation and the key content, provide the basis for the library development, library, need to take advantage of big data, to solve the problem of the service object, for the library to do a good job of data analysis, in order to clear the library purchase type, to ensure the effectiveness of large database library. At the same time, the library needs to use big data technology, building dynamic procurement platform, collects all levels of readers to read information, press the dynamic, the supplier's supply situation, and set the appropriate permissions, using cloud computing technology the library evaluation system should be established in order to access, analyze and extract more valuable information about the library. In the operation process of the dynamic procurement platform, the library needs to infiltrate the informa-

tion of suppliers, publishers and book titles to provide more convenience for readers, so that readers can select books from the platform and analyze the types of books they choose according to their book selection records, so as to make full use of library resources.

### 5.2 Provide personalized and accurate service

Involved in the library a large number of data and information relevant to the user, such as user during a visit to the number of traffic, in the process of users to download electronic resources database log, browsing, retrieval user log occurring in the process of borrowing books circulation, the social network data, etc., the library can use the information, data, analysis of the overall characteristics of the user, These data and information involve a large number of implicit behaviors, and those related to explicit behaviors need to conduct in-depth research on them to highlight the value of data and information. At the same time, the library staff to explore characteristics and model data, can be found that the behavior of the readership, reading interest, to establish related to readers' personal knowledge system, clear the reader's reading demand, provide accurate service for readers, such as personalized recommendation service, active push service, such as taobao, amazon website personalized recommendation, Both of them recommend relevant thematic information to users according to their access records, build personalized user behavior models according to the user's individual behavior information, and conduct mining according to the relevant rules of the model to provide users with personalized complexity, and timely inform users when discovering new commodity data. In addition, libraries can actively learn from practical experience and apply it to the construction and development of libraries to provide personalized and accurate services for users.

### 5.3 Improve the comprehensive quality of library management staff

In the process of library business management, managers need to master the operation method of big data technology to ensure the intelligent, scientific and information management of library business, which brings great challenges to the comprehensive quality of library

managers. Libraries need to strengthen the business management training for management personnel, clarify the business management model, and formulate a perfect training system to provide a platform for management personnel to improve themselves, and constantly improve the professional quality of library management personnel. For example, in the process of library training, managers need to make full use of big data technology and build training programs according to the actual situation of managers, so as to give full play to the role of big data technology in library business management, improve the ideological cognition of managers and provide support for the improvement of library business management level [3]. In addition, the library needs to introduce excellent professional management personnel, build high-quality business management services team, management needs to set up the ideas of autonomous learning, to master the application of information technology in the process of self learning methods, improve their business ability, can use micro lesson, lesson for study way, to get more learning resources.

## 6. Conclusion

To sum up, in the process of library business management, the application of big data technology is an important trend of library development in the future, which meets readers' requirements for libraries. The library management department needs to introduce big data technology, make use of the advantages and characteristics of big data to do a good job in business management, ensure the intelligence and accuracy of business management, and provide guarantee for the sustainable development of the library.

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