

Probe into the Library Intelligent Information Management Path under the Background of Big Data

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Abstract: With the rapid development of China's economic level and science and technology, China has entered the era of big data, and big data technology has affected many areas of our lives. The library is an important medium for conveying knowledge and disseminating information for readers, and undertakes important learning tasks. The arrival of the era of big data brings a lot of opportunities and also many challenges to the development of libraries, the library also shows the characteristics of digital library and smart library. In the background of big data era, there are many problems and deficiencies in the construction of library intelligent informatization, and the current development stage of library intelligent informatization is not insufficient. Therefore, this paper focuses on the realization of library intelligent information management strategy to better promote the construction of library and innovate the effect of library management.

Keywords: Big data era; Library; Intelligent information management; Development path

1. Introduction

Accompanying the big data era is the explosive growth of information and the emergence of a large number of intelligent terminal applications. The form, source, and structure of data have all changed significantly. In the context of the rapid development of network information, people's requirements for libraries are gradually increasing. Libraries are increasingly showing the characteristics of digitalization, intelligence and informationization. Libraries have more choices in operation, construction and management. The construction of resources in the library is becoming more and more perfect. For example, electronic libraries, periodicals, multimedia resources and other resources occupy an important position in the library, and people's mobile reading volume has increased significantly. Under the background of the development of knowledge economy and information technology society, libraries need to change towards the direction of individualization, diversification and knowledge. Therefore, the focus of future work is how to innovate library intelligence and information management, and explore the path of innovative library services.

2. Big Data Brings About the Transformation to Library Intelligent Information Management

As an important place to provide information exchange and services for readers, the library gradually changes its own development model with the development of social economy. Modern library is gradually integrated with the

support of modern science and technology, becoming more intelligent and convenient. Especially after the process of collecting, analyzing and synthesizing individual information by big data, applying big data to libraries can provide readers with more valuable and personalized information and services.

2.1. Provide richer services and management for libraries

As an emerging technology, big data has a wide range of information value. It can mine deeper value and information of users, so as to provide better services for people. The key problem of library service and management is how to provide high quality service for readers and dig into the internal needs of users. Big data database technology simplifies the process of information collection, analysis, processing and integration, and clarifies the direction of improvement for the basic functions of library book procurement, compilation and retrieval. Big data database technology simplifies the process of information collection, analysis and processing, and integration, and clarifies the direction of improvement for the basic functions of library book purchase, compilation and retrieval. The arrival of big data era has provided better conditions for library services and management. Multiple information technologies have provided a wealth of service items and types for library management, and more importantly, it makes the service and management provided by the library for users more targeted and personalized.

2.2. Improve readers' satisfaction with library service and management

To provide better services to users and improve the satisfaction of readers is the purpose of library services and management. Due to its own characteristics, big data can provide users with a wider range of data information and perfect library resources information base. At the same time, big data brings more users to the library, and also provides convenient means and environment for communication and exchange between different users. The development of big data information technology also provides users with more accurate and fast information. People can use the obtained resources and information to improve their skills, increase their loyalty and dependence on the library, and meet more needs of users.

2.3. Improve the technical level of library service and management

On the one hand, in the era of the explosion of data and information, the types and scale of data to be analyzed are huge, which leads to the increase of service costs in many industries. However, with the application of new technologies such as cloud computing, big data, and blockchain, it can provide efficient and accurate data storage and management, providing a good environment for the data storage of modern libraries and meeting the needs of users. On the other hand, the big data era has promoted the sharing of knowledge and information, thus closing the data analysis and sharing between different disciplines. The application of big data technology in the library can provide the library with a remote retrieval function, which can help the library accurately and timely obtain valuable information and service content, thus catering to the rapid development trend of today's technology.

2.4. Big data puts forward higher requirements for library development

The application of various science and technology not only brings opportunities for the development of libraries, but also puts forward many challenges and requirements for the development of libraries. At present, there are difficulties in the management and service of libraries.

Firstly, the arrival of big data era has put forward higher requirements for the construction of library information infrastructure. With the increase in data sources, forms and totals, big data technology, cloud computing technology, and blockchain technology have created conditions for data storage and management. But data analysis needs the support of hardware infrastructure, and the reliability and standardization of data can be guaranteed. Therefore, the arrival of big data era requires libraries to improve the corresponding data processing facilities.

Secondly, the development of libraries needs to meet the different needs of users.

The 21st century is knowledge and economy society, and information society. People have a strong psychology of information and knowledge hunting. Libraries are the main places to acquire knowledge and information. Therefore, people's demand for data and information diversity increases when people search for information in the library. At the same time, with the accelerating pace of life, people put forward higher requirements for the speed of information acquisition. The library needs to gradually strengthen the processing speed of information and data to better meet the expectations of users. In addition, the quality of the information and content obtained from the library cannot be ignored. The information data is huge and complex. The library resource base needs to sort, classify and process the collected information and resources with the help of various technologies. In the process of processing, a standardized processing method must be adopted to ensure the quality of information and content and meet the needs of users.

Thirdly, the big data era needs high-quality library management personnel to promote the innovation and development of libraries. The knowledge, skill as well as the quality level of library management personnel affect the service quality of library, reflect the service concept of library to a great extent and represent the image of library. However, at present, the service management personnel of the library are usually low educational qualifications and quality, and there are few professionals who master various technologies of big data. Therefore, the big data technology cannot be better used in library management. The lack of high-quality library management talents has hindered library management and service innovation and affected the development of digital libraries.

Fourthly, the arrival of big data era makes the privacy of library users more serious. Although the big data brings a lot of convenience to the development and construction of libraries, there are also many hidden dangers. Many network hackers can collect and steal data by proficiently manipulating big data, thereby threatening user privacy issues and increasing the risk of user information leakage. At present, various institutions such as libraries usually hand over the collection and processing of data and information to third-party companies for processing. This makes it easy for user information to be stolen and user privacy to be leaked. Therefore, the library needs to strengthen the protection of user privacy in management and service.

3. Innovate the Strategy of Library Information Intelligent Management under the Background of Big Data

With the rapid development of modern social science and technology, the library better adapts to social development and changes. It is necessary to change the development concept from library managers, use modern net-

work technology, ensure user information security, and improve the quality and ability of library staff, in order to improve the level of library intelligence and information management.

3.1. Managers should adapt to the trend of big data development and change their development concepts

In the era of big data, managers should realize the changes brought by big data to library management, and they should enhance their understanding of various technologies such as big data. They should collect a large number of samples and data, ensure the accuracy of the collected data and information, discover the internal relationship between the data and have the ability to predict the data and information. Firstly, managers should change the traditional data processing methods and adopt a new data collection and processing mode. Secondly, in order to promote the innovative and sustainable development of the library, the managers should update the development concept timely, regard the users as the service objects, understand the internal needs and demands of the users, and adjust the service content, service attitude, service mode, service items and other contents of the library. In order to meet the diversified needs of users, managers should provide diversified information resource services as much as possible. Finally, under the conditions of rapid development of information technology, libraries must adhere to the legalized service concept, abide by the national information security law and internet security law, guide users to use book resources rationally and legally, and create a good reading environment for users.

3.2. Introduce modern network technology to innovate library service model

The application of advanced science and technology in library management and service is conducive to the innovation of library service and management. First of all, by using the positive role of information resource sharing in promoting library comprehensive management, managers can set up user opinion sections on smart mobile terminals, refer to users' opinions on the library, and draw on useful and effective opinions. Finally, improve the quality of library services. Secondly, the mobile phone client can be used to provide remote services for users, such as opening the function of borrowing books, reminding new book appointment, reminding advance appointment and so on, and meeting the needs of users to obtain information on mobile devices. At the same time, some functions are simplified to facilitate older users to access information and services. Finally, in order to improve the service level of library, innovate digital construction, it is necessary to give full play to the role of various information technology means. For example, we can use a variety of technical means to build digital library, share resources

on other library platforms, increase users of digital library and improve the coverage of information resources.

3.3. Ensure the security of user information and establish a sound information service security guarantee

It is a powerful measure for library development to pay enough attention to the security construction of information database. The application of advanced technologies such as big data, blockchain and cloud computing in libraries not only provides convenient services for users, but also increases the risk of information leakage. Therefore, the library needs to make improvements in three aspects including virus processing, network supervision, and technological innovation and upgrade, so as to reduce the risk of the library being invaded by viruses and ensure the user's information security. In addition, in the era of big data, the speed of updating information data is accelerating. The construction of library information database needs to keep abreast of the development of big data, eliminate old information in time, absorb the latest information and data to enrich the database, and ensure that users are provided with the latest information data.

3.4. Improve the quality and ability of library staff

Under the background of big data era, the future direction of library construction is more towards the digital, intelligent, and informatized development. Libraries need to make full use of modern technology to broaden the library service contents and service project. It is up to the staff to apply advanced technology to the management of the library. High-quality library staff is an important guarantee for the development of libraries. The quality of staff affects the quality of library services and the level of intelligent and information construction. On the one hand, library staff should master various network technologies under the background of big data era, use network technologies to pay attention to the needs of users, do a good job in the intelligent construction of library information, and provide users with more humanized services. On the other hand, we should regularly strengthen the training and learning of library staff on the knowledge of library science, network science, information science, big data technology and so on, so as to improve the ability and quality of library staff.

4. Conclusion

The advanced technical means derived from the era of big data provide important support for the promotion of intelligent and informatized management of libraries, but libraries also need to make innovations and developments in a timely manner in accordance with the development and changes of the times. The future development of library needs to make changes and adjustments from many aspects, so as to promote the sustainable de-

velopment of library and create a more comfortable and high-quality learning platform for users.

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