

Analysis of Smart Services in the Environment of Smart Libraries in Universities

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ABSTRACT

With the continuous development of Internet of Things technology and big data, university libraries, on the basis of information technology, constantly improve collaborative, open, innovative and intelligent library services, bringing a more intelligent learning and working service mode to university teachers and students. Under the environment of gradual intelligence of university libraries, in terms of how can we continuously refine the service demands of university teachers and students, continuously innovate the content of library information services from various aspects, and build more diversified information services, we need to continuously innovate and develop in the intelligent library service mode and conduct a deeper discussion.

KEYWORDS

Universities; Smart Libraries; Smart Services

1 Introduction

With the arrival of the era of big data, more and more university libraries are facing new service challenges. We should think about how can we provide more diversified services to meet the information reading needs of teachers and students in colleges and universities and enhance the influence of efficient intelligent libraries through diversified and personalized information services. This has put forward higher requirements for the staff of university libraries and brought greater challenges to the intelligent service system of university libraries. The advent of the era of big data makes the decision-making process mainly based on data analysis will completely change the service system of traditional college libraries, and college libraries gradually tend to develop wisely, provide more comprehensive information collection system for teachers and students, and improve the reading satisfaction of teachers and students through wisdom service based on big data analysis, and also provide more diversified help for teachers and students' learning life.

2 Smart library

Intelligent library in higher education is based on the digital library services for deeper optimization of the use of big data, Internet of Things, cloud computing and other more information-based means, the library of all kinds of digital resources, user data, collection resources and other information systems in an effective service management model for system planning, building a more complete, with intelligent decision-making, things to deal with the library management system. In the process of developing and constructing an efficient intelligent library, we use data resources as the basis and information technology as the system support to provide

more rationalized services for teachers and students. Today, with the development of information technology, big data technology provides strong support for the development of an efficient smart library, providing more personalized services for teachers and students by effectively analyzing and extracting useful data from relevant user data. The establishment of a smart library requires certain hardware and software services and construction in accordance with the corresponding norms and standards. In the process of building a smart library system, corresponding digital resources and certain supporting equipment are needed to provide support. Through the effective association of digital resources with various kinds of software and hardware, computer network system, mutual supplementation and effective sharing of data and information, the application system of the library is constantly optimized to provide more personalized services for teachers and students of colleges and universities, so that teachers and students of colleges and universities can obtain a large amount of information and data resources in a short time to meet their needs. Thus, compared with digital libraries, intelligent libraries have further improved in service level, which shows that, in the future, the important direction of university library development is also a kind of service mode operating with new management mode, which can bring more efficient, convenient, comprehensive and intelligent services to university teachers and students.

3 The service innovation of intelligent library

3.1 Book location sharing service

Relying on the service system of the smart library, it is possible to access the corresponding library resources for teachers and students more effectively. Relying on location service positioning technology and other means, the information of books in the library can be inquired. By establishing certain databases, intelligent sensor devices, etc., it is convenient for teachers and students to determine the exact location of the books they need to borrow in a short period of time through simple and portable operations, helping them to quickly find the information resources they need.

3.2 Providing mobile learning services

The smart library can rely on various mobile terminals to provide a more portable mobile service learning mode for teachers and students. Students and teachers can access the relevant web pages or install certain applications to interface with the platform of the smart library through various mobile terminals, and unlock them through third-party resource platforms and other one-stop services to realize mobile learning. This kind of mobile learning service mode is not limited to time, place and space, and the data is effectively integrated through Super Star Digital Library and MU mobile terminal, providing a more portable service mode for teachers and students, who can choose more widely and freely in the time of learning.

3.3 Self-service book lending service

The intelligent library can provide self-service book lending service for teachers and students. Through the cooperation of software and hardware services such as image recognizer and Internet of Things environment, they can find the books, information and resources they need in a short period of time and borrow them quickly through the self-service lending machine, and return and lend the books quickly without the operation of relevant staff. It also provides a more comprehensive guarantee for the security management system of library resources, so that the

return of each book can be traced and the misregistration in the book lending process can be avoided. At the same time, the management system based on the smart library can also provide effective querying of books, information interaction, and reservation of book borrowing in advance, etc. According to the specific situation of teachers and students reading, it provides interactive design to bring a better reading experience for teachers and students, and can also recommend relevant information needs for teachers and students, which fully reflects the more powerful data management system of the smart library.

3.4 Personalized service

Relying on big data to analyze users' reading information, it can provide more personalized services according to users' reading habits, interests and other characteristics, and recommend book information content to teachers and students. In the information retrieval interface, teachers and students can form a unique information retrieval method by inputting search for the main information, which can be presented to teachers and students in a more convenient way, and quickly help them obtain effective information resources through simple guidance. Comprehensive analysis based on the user's professional age, common search keywords and other data can help users establish habitual reading patterns and provide them with more personalized information service recommendations.

4 The intelligent service in the intelligent library environment

The development and construction of intelligent libraries in colleges and universities is based on information technology to better provide portable services for teachers and students in the process of construction, and intelligent services in colleges and universities can be better reflected in the following aspects.

4.1 Providing intelligent services for university teaching

The intelligent service system of intelligent libraries in higher education institutions can provide more convenient help for teaching, participate in the teaching process through effective communication of information data, capture the important and difficult points of teachers and students in teaching, collect the relevant needs of teachers and students for library information data, and effectively organize and analyze all kinds of fragmented knowledge information to provide more targeted teaching reference materials for teachers and students, which can also help teachers to identify problems in a timely manner. Through the education of intelligent library professionals, it can help teachers and students open intelligent classroom teaching, guide students to learn to effectively use the class reference, information resources, etc., to achieve the open development of teaching mode. The process of smart classroom teaching can help students develop the habit of independent thinking and use various information resources to enhance their independent innovation ability. Through the wisdom service, we go deep into all aspects of classroom teaching, going to use all kinds of literature, videos, courseware, QR codes, etc., to help students have effective thinking and discussion in the teaching process. We should continuously innovate the practical teaching process, through scenario simulation, collaborative creative teaching, to maximize the development of classroom information resources and continuously stimulate students' potential.

4.2 Providing analysis of disciplinary frontier information

The intelligent service can analyze the information related to key disciplines of universities, integrate the discipline resources, analyze the students' learning knowledge and mastering related laws according to the teaching and learning needs of teachers and students, and organize the data effectively and select the targeted data information to provide. At the same time, it can carry out tracking service for key disciplines and key information, predict the future development direction of disciplines through literature, data, research direction and focus, and effectively integrate the core information of discipline research, provide the latest and cutting-edge knowledge information of disciplines to teachers and students in need, and help teachers and students conduct more in-depth research and exploration.

5 Conclusion

Smart libraries can provide more convenient services for teachers and students, use intelligent management service features, and continuously increase the degree of openness and collaboration of information and data. In today's rapid development of big data, university libraries need to provide more intelligent and portable services for teachers and students, and meet the needs of teachers and students for data and information with the help of advanced technical means. With the wave of development of intelligent libraries, we insist on the principle of rationality and practicality, and promote the transformation of university libraries toward the direction of more digital resources and more intelligent services.

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