

Analysis of the Transformation of Librarians' Intelligence Under the Background of Intelligent Libraries

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ABSTRACT

In the context of building a smart society and a smart country, the intelligent transformation of libraries requires librarians to keep up with the times, develop smart service thinking, and enhance their smart capabilities. This article will discuss the issue of intelligent services for librarians from three aspects: The first is to discuss the new situation and changes faced by librarian services under the background of smart library construction, including the transformation of service models, resource forms, business processes, and management models. The second is to discuss the new requirements have been put forward for the quality and ability of librarians under the background of intelligent library construction, including knowledge service ability, technical ability, and professional ethics. The third is to put forward new strategies to promote the intelligent development of librarians. This includes three aspects: recruiting talented individuals, establishing training mechanisms, and strengthening cooperation and exchanges.

Keywords: *Library staff, Intelligent transformation, Intelligent services.*

1. INTRODUCTION

The current human society is experiencing a new round of technological and industrial revolution led by technologies such as artificial intelligence, big data, block chain and 5G. Entering the era of intelligence, as an information intensive industry, libraries are forced to change their mind set and actively integrate into the intelligent strategic system under the dual drive of technological revolution and user demand reform, in order to adapt to the national macro strategic layout. This is the primary responsibility of public libraries to implement national cultural strategies, fulfil their cultural missions and social responsibilities. For librarians, this is both an opportunity and a challenge. Under the background of the intelligent construction of the bookstore, the development and cultivation of intelligent services for librarians are imperative.

2. NEW CHANGES FACED BY LIBRARIAN SERVICES IN THE CONTEXT OF SMART LIBRARIES

2.1 Transformation of Librarian Service Mode

The service model of traditional libraries is limited by limited manpower and technology which has simple communication with users and standardized service content. The services provided are mostly based on the needs raised by users. In contrast, with the help of RFID and cloud computing, smart libraries can provide readers with the resources or services they need in an appropriate way at any time and any place. The entire process is provided in an automated, personalized and interactive manner. The literature data services presented to readers by the smart library are not just superficial, but also have breadth and depth. Its service model is more refined, with "people-oriented" as its core, giving users more autonomy. Especially with the application of big data analysis technology, smart libraries can

achieve early perception of users' needs and push relevant information before readers have raised service requirements. In this new service model, librarians should update their service concepts in a timely manner, integrate existing business foundations with intelligent technology, and provide readers with a higher-level service with demand analysis capabilities and creative development. At the same time, the library needs to build a three-dimensional service environment, further expand its service scope, and meet and exceed users' expectations with services that better reflect humanistic feelings and wisdom, so that users can list the library as their first choice for search engines.

2.2 Conversion of Resource Forms

Entering the development stage of smart libraries, the resource construction of libraries will break through the existing pattern. Its primary task is to transform existing literature resources from extensive literature units to deeper and more precise knowledge units on the basis of digital libraries. Libraries will place greater emphasis on collecting receipts based on users' behavior, using smart devices or systems to collect and store personalized data on users' activities such as searching, reading, browsing, learning, interacting with librarians, and walking routes within the library; At the same time, it can also include multiple knowledge contents such as network original resources, scientific data, open access resources and personal creative resources under the Internet environment. After integrating and regenerating all the above resources, establish a large and comprehensive resource database. With the support of artificial intelligence and big data technology, fine-grained knowledge association can be achieved to truly extract and transform intelligent and knowledge products aimed at user services from massive amounts of data.

The booming new technology of the Internet has diversified the ways for readers to receive information. The resources of a smart library will no longer be confined to the premises. Through technologies such as VR and streaming media, knowledge data can be brought to users' eyes. So, the forms of resource storage and transmission need to be more diverse to adapt to this ubiquitous service. The data of a smart library will be updated in large quantities every moment, and integrating dispersed and heterogeneous resources requires librarians to master both macro control techniques

and the ability to extract data from thin threads. It is undeniable that the construction of resources consumes a large amount of manpower and high costs. Therefore, libraries and institutions should jointly build and share resources to avoid redundant construction and uneven distribution of resources, and promote the development and application of smart libraries in China.

2.3 Business Process and Management Mode Transformation

Entering the development stage of smart libraries, the entire process of library business content and operation management mode will face further intelligent restructuring. On the one hand, school should deeply develop and utilize data resources from a new perspective, matching them with intelligent knowledge production and service processes. On the other hand, libraries need to rebuild integrated offline facilities and online platforms based on the construction standards of smart services, and redesign and improve business processes accordingly to achieve automated and integrated management of the entire lifecycle of literature resources, comprehensively improving the efficiency of library work. At the same time, it liberates librarians from a large amount of simple transactional work, allowing them to engage more in professional knowledge aimed at high-level learning and reading needs. For library managers, smart libraries require intensive and intelligent management. Therefore, it is necessary to reorganize business departments, establish new business standards and focus on cultivating innovative and technical librarians.

3. NEW REQUIREMENTS FOR THE QUALITY AND ABILITY OF LIBRARIANS IN THE CONSTRUCTION OF A SMART LIBRARY

3.1 Knowledge Service Capability

Knowledge service refers to providing personalized knowledge services based on users' learning characteristics, aiming to help users master more knowledge and skills, and further develop their own information resource learning abilities. Traditional library knowledge services focus more on providing literature services. After consulting and communicating with the administrators, they provide readers with the necessary literature

resources, and the service process is relatively simple. Intelligent knowledge services are a further extension of literature services. Before providing services, librarians collect users' historical behaviour data to accurately grasp their needs and preferences. During the service process, provide diversified resources based on relevant analysis reports before the service, and adjust the service at any time according to interactive data during the process. After the service, all data is integrated into the system for subsequent tracking services, providing users with diverse search and reading reports to help them explore their own needs. From beginning to end, schools must take the user's purpose as the direction, collect, assemble, and design corresponding information resources. Smart librarians need to leverage their resource search ability and keen observation skills to provide personalized and creative services to readers, ultimately helping users improve their ability to learn, apply, and create new knowledge.

3.2 Technical Capability of Smart Curators

Smart libraries are bound to constantly innovate and develop under the drive of technology. In smart services, people and technology are inseparable. Smart librarians, as the core, should constantly adjust themselves to adapt to the rapidly changing new technological environment. But if only focus on improving technology without cultivating librarians who can understand and use these technologies for services, then intelligent services will be just empty talk. At present, on the basis of Internet plus, smart services adopt diversified smart technologies, such as RFID technology in the library to achieve real-time book positioning and intelligent search; Integrating cloud computing with open data and associated data, integrating classified resources, and achieving interoperability between resource description and retrieval; Utilizing multimedia and the Internet of Things to achieve ubiquitous service locations, allowing library services to extend infinitely in space. The user's location corresponds to the location of the library; By using virtual reality technologies such as VR to achieve the integration of virtual and real service spaces, and so on. The above mentioned technologies do not require every librarian to be proficient in them. Instead, they should choose the necessary ones based on their own strengths and responsibilities, and expand their knowledge horizontally to achieve proficiency in all areas.

3.3 Professional Ethics

With the rapid updates and iterations of information technology, people's imagination about how to obtain information is still constantly expanding. Among numerous media, the ability of the library itself determines whether users will choose the library in the first place. As the most important resource and wealth of a library, librarians determine the direction of its survival and development. Smart services have put forward new requirements for the professional quality and ability of librarians. One is a comprehensive talent with a complete knowledge structure and the ability to conduct all-round analysis and judgment. In addition to mastering the professional knowledge of library science, librarians should also have extensive cultural knowledge, including solid knowledge of reference books, literature retrieval skills, good cultural cultivation, broad disciplinary knowledge and a certain level of foreign language proficiency. The second is to have a certain cognitive ability towards the Internet of Things, big data, semantic web, etc., familiar with information technology knowledge, and always maintain a passion for learning new technologies, possessing the ability to mine data and integrate and transmit fragmented information. The third is to have innovative service awareness, not stick to conventions, and be able to optimize service methods in real time to ensure the provision of high-quality and efficient user services. The fourth is to have good professional ethics, love for the job, have a proactive spirit in the face of difficulties and actively exert their unique value. The fifth is to have professional competence when providing services. While providing personalized services, attention should be paid to protecting users' privacy and maintaining a good work attitude at all times.

4. NEW STRATEGIES TO PROMOTE INTELLIGENT SERVICES FOR LIBRARIANS

4.1 Recruiting Talented Individuals

The transformation and development of libraries, as well as the realization of intelligent library services, must rely on a high-quality service team. However, currently there is a scarcity of intelligent librarians in China. Cultivating all existing subject librarians into smart librarians is the most ideal state, but due to the varying educational levels of librarians and the lack of a comprehensive mechanism for smart training and selection, it

cannot quickly fill the gap of smart librarians. Therefore, a dual approach must be taken, which involves both internal training and external recruitment. External talent sources can include university libraries or related book companies.

In recent years, the knowledge content consumption market has shown a diversified trend, publishing institutions, internet platform operators, digital technology service providers, etc. entered the market and formed a relatively mature service industry chain. If the library wants to take the lead in the field of knowledge services, it must attract a large number of technical talents from other industries and pay attention to the introduction of specialized talents in disciplines other than the field of graphics and information. Libraries should focus on cultivating a new type of talent team, including subject librarians, data librarians, communication librarians, information technology librarians, think tank experts, intellectual property service experts, intelligence analysis experts and other professional talents, by optimizing the job positions within the library, balancing the proportion of disciplines and technical majors in the library staff, and achieving sustainable development of smart libraries.

4.2 Establishing a Training Mechanism

Librarian training is an effective way to enhance abilities and broaden horizons. In terms of training content, it should keep up with the needs of the smart era, scientifically customize training plans that highlight the specific job characteristics of librarians and combine internal and external training. Smart librarians should have the same attributes of continuous updating and learning as smart libraries, therefore, librarian training is a gradual and constantly learning process. Participate in learning and training according to business needs to help them master new knowledge, systems and equipment. In terms of training methods, in addition to internal training methods such as specialized training, expert lectures and training style training, librarians should be encouraged to go out and receive training. The research and development of library technology products are mostly completed by relevant technology enterprises, who have both technological innovation capabilities and product service experience. It is necessary to allow librarians to enter the enterprise. The first is to allow them to experience and understand the management system and technical equipment of the learning library from the root. The second is to effectively establish

a communication mechanism between the library and the enterprise, The purpose is to understand the practical needs of smart libraries deeply.

After the training, attention should also be paid to establishing a complete training evaluation mechanism, timely evaluating the effectiveness of the training, and forming a training management loop. By analysing training data and adjusting the positions of librarians in a timely manner, Schools ensure that each librarian can fulfil their responsibilities and showcase their talents, providing a sufficient learning platform and transformation opportunities for capable librarians.

4.3 Cooperation and Exchange

The transformation of library intelligence is a long-term and gradual process. In terms of development mode, it is impossible to achieve it independently by relying solely on a single library working in isolation. It requires cooperation from all parties to complete. Deepen the communication mechanism between librarians in public libraries, based on cooperation agreements, alliance charters, and normative standards, and achieve cooperation in resource co construction and sharing, information accessibility retrieval, and other aspects through library alliances. University libraries should have rich experience in using "Internet plus" new media technology to achieve online and offline smart reading activities. Public libraries should strengthen cooperation with university libraries, seconding experienced university librarians to work in public libraries, learning from their experience, launching diversified smart reading activities, encouraging readers' reading behaviour, and attracting more and more readers into the library. In foreign countries, some libraries have taken the lead in exploring smart space construction, smart business management, and service standard specifications. Schools should actively build a communication bridge between librarians in international smart libraries, expand international cooperation, combine advanced service concepts from abroad with our own practical development, and construct a smart library system that is in line with China's national conditions. In addition to libraries, it is also possible to collaborate with other related departments such as museums, archives, science museums, etc. Smart librarians should maintain constant sensitivity and explore breakthrough points across different industries.

5. CONCLUSION

Modern intelligent technology is rapidly advancing the intelligent development of the entire society, and libraries, as information resource transmitters, must also integrate into the trend of intelligence. Based on current trends, its future development is limitless. Scott once pointed out that the changes in the library industry in the past 5 years have indeed exceeded those in the previous 100 years, and the changes in the next 5 years will make the changes in the past 5 years insignificant. As the core driving force behind the progress of the giant ship, librarians should closely follow the pace of development, constantly explore and explore their own potential, seek development through innovation, and open up new opportunities in the changing situation, making new contributions to promoting the transformation and development of libraries in China from digitization to intelligence.

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