

Research on the Innovative Path of Future Learning Center Service in University Library under the Background of Digitalization

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Abstract:

Under the background of digitalization, the service of future learning center should pay more attention to user-centered. At present, the service of future learning center is faced with the shortage of professional talents, the lack of diversification of space construction, and the lack of flexibility of operation mode. The author puts forward the optimization strategy of future learning center from four aspects: integrating new artificial intelligence technology, building scientific and reasonable team structure, building diversified theme space, and multi-subject cooperation.

Keywords:

Future Learning Center, University Library, Innovative Service

1. Introduction

In the context of the rapid development of the Internet and big data, the spatial services of libraries are facing the opportunities and challenges of “intelligent” and “innovative”. On the 40th anniversary of its establishment, the Library and Information Work Committee of the Ministry of Education proposed the goal of building “future learning Center” and encouraged some university libraries to build and develop the future learning center in advance [1]. In 2023, the Department of Higher Education of the Ministry of Education proposed that university libraries should give full play to their own advantages and use information technology to promote the exploration and development of future learning centers [2]. Under the current background, the construction of future learning center of university library has become the key direction and goal to promote the transformation of library to wisdom. At the same time, the services provided by the future learning Center have also become an indispensable focus of university libraries in their strategic planning. However, the current domestic research on the future learning center mainly focuses on the construction path of the future learning center, the current situation of the future learning center and the case analysis of the future learning center, and there are few studies on the innovative service of the future learning center in university

libraries. Therefore, it is of great significance to study the service innovation path of the future learning center of university library to promote the intelligent development of university library.

2. The Importance of Innovation in the Future Learning Center Service of University Library

With the continuous progress of science and technology, the learning styles of college students are showing an increasingly rich and diversified trend, which puts forward higher expectations for the teaching mode and education support system. Contemporary college students not only need a variety of course resources, including online and offline forms, as well as professional guidance from teachers and abundant literature and information resources to enrich their knowledge, but also need corresponding space support for independent learning, academic discussion and the development of various sports and sports activities. In the context of high enthusiasm for entrepreneurship and innovation, college students are also looking for diversified support such as exclusive space for innovation and entrepreneurship, intelligent training bases and advanced subject laboratories. Under the guidance of the concept of “serving students”, these diverse needs pose severe challenges to the design of higher education classrooms, the optimization of teacher quality, the construction of information technology infrastructure such as media platforms, and the rational spatial layout and functional planning of campus buildings.

Driven by digitalization, university libraries are no longer limited to traditional collection and borrowing services, but with the help of intelligent robots, intelligent positioning systems, 24-hour smart library systems, integrated information retrieval and consulting services, professional team services and innovative learning Spaces, they have successfully transformed into “information exchange and knowledge creation centers”. It provides an indispensable boost to the public information service and the development of higher education. At the same time, the strategic goal of “promoting the innovation of information-based education, building a smart campus, and building a unified intelligent teaching, management and service platform” emphasized in the “China Education Modernization 2035” plan provides an opportunity to accelerate the digitization process of higher education and build a “future learning center” integrating information service, learning assistance and teaching assistance [3]. It also provides a valuable opportunity for university libraries to play their unique advantages and irreplaceable roles.

3. Principles of Future Learning Center Service in University Libraries

3.1. Take the user as the center and attach importance to the user experience

The user-centered service concept is the general consensus in the field of library service, and has become the core service purpose of the future learning center of university library. In the process of building the future learning center of university library, in addition to the expansion and innovation of traditional learning space, it is also necessary to deeply integrate the user's basic experience-oriented design concept, strive to meet the individual needs of users, and flexibly provide users with more rich, diversified and highly targeted knowledge services to optimize the overall learning experience of users.

3.2. Take librarians as the intermediary and pay attention to the interaction between users and libraries

The learning center of the future will abandon the traditional layout of isolated Spaces and instead emphasize the concept of deep connection and sharing. It organically integrates multiple elements such as users, resources, activities, equipment and environment, promotes collaboration, promotes the construction of smart library by strengthening connectivity, and realizes interdisciplinary blending learning. This connection is designed to stimulate the vitality and potential of the learning space, and then create more rich and diversified learning opportunities and values for users. In this change, librarians, as core members, will become the main performers of the future learning center service, and assume the important role of connecting the learning center, information resources, users and space and other key elements. Therefore, librarians need to abandon the traditional service role positioning, establish a new service goal, and expand the connection service to a more extensive, precise and cross-border field to meet the needs of the future development of learning centers.

3.3. With the support of technology, to meet the immersion needs of users

In the future learning environment, the core position of technology has become increasingly prominent, not only as a supporting force, but also to promote our in-depth reflection and innovation of technology application, thus becoming a key element in shaping the future learning center. In this process, the role of technology has changed from a simple tool to an integral part of the future learning center, which is deeply integrated into its spatial layout, function setting and service provision, and jointly build a future learning ecology where technology and learning are perfectly integrated. With the continuous evolution of the learning center, the technology will further deepen its integration, jointly promote the innovation and development of future learning models, and meet the user's immersion experience of the learning center, such as intelligent lighting equipment can automatically adjust the indoor light, 5G, AR technology to create immersive reading space.

4. Problems Existing in the Future Learning Center Services of University Libraries

The construction and development of the future learning center of the domestic university library is still in the continuous evolution stage, so in this process, it will inevitably encounter some challenges and shortcomings. These difficulties and deficiencies are not only normal in the development process, but also an important driving force to promote the continuous optimization and innovation of library services.

4.1. Lack of talents with professional background

The core concept of the Future Learning Center is user-oriented, aiming to create accurate services and immersive learning experiences for users through the application of extensive data sets and cutting-edge technologies. Compared with the traditional roles of librarians, whose functions are mostly limited to the circulation management of books, the organization of activities in the library and the response to user inquiries, the future learning center will have more in-depth and diversified requirements for librarians. In this model, librarians should have the ability to develop and produce subject information, organize and summarize information knowledge

systematically, so as to provide accurate and personalized academic support for teachers and students, such as providing relevant data and detailed literature review services of the past two decades according to the specific needs of users. In view of the above changes, the knowledge structure and skill reserve of traditional librarians can not fully adapt to the service needs of future learning centers. In order to more effectively satisfy users, the librarians of the future learning center must master emerging technologies such as data processing technology and virtual reality, so as to improve service efficiency and quality, and ensure that users can obtain more comprehensive and accurate information resource support.

4.2. Insufficient diversification of space construction

In view of the increasingly personalized and diversified needs of users, in order to optimize the user experience, the construction of learning space should match with it to achieve diversified development. However, when constructing future learning Spaces, university libraries mainly focus on the traditional reading space and learning space, and the investment and layout of interactive space to promote in-depth communication between teachers and students, innovation space to stimulate students' practical innovation potential, and leisure space to support learning extension and relaxation are still insufficient. This limitation significantly restricts the full play of the function of the learning space, and fails to fully respond to and meet the increasingly diversified and personalized learning needs of users, thus affecting the function of the future learning center of the library as a knowledge exchange and innovation center.

4.3. Lack of flexibility in operation mode

To meet the individual and diversified needs of users is the core goal of the library's future learning center construction. In this context, compared with the construction of physical space, the services and functions carried by the future learning center are particularly critical. At present, it is worth noting that although the number of university libraries in recruiting librarians is decreasing, the scale of library space construction is constantly expanding. This trend highlights the core position of learning center in library operation in the future, which plays an irreplaceable role in optimizing resource allocation and improving service quality. However, the current mode of operation of the future learning Center of the library is still simple and inflexible. Specifically, the existing learning space is mainly limited to traditional reading functions and fails to fully utilize its potential as a future learning center, such as providing diversified services such as MOOCs and seminar rooms. This single mode of operation not only limits the satisfaction of users' needs, but also hinders the development of library service innovation.

5. Innovation Path of Future Learning Center Service of University Library Under the Digital Background

The construction of future learning center is a process of continuous evolution and continuous optimization, the core of which lies in continuous innovation and diversified development. Therefore, relying on the library's deep academic heritage, using its advanced technical facilities, professionals and rich information resources, it can accurately identify and meet the needs of users, and realize the innovation path of future learning center services in university libraries.

5.1. Rely on the basic advantages of university libraries and integrate new technologies such as artificial intelligence

In the practice of the future learning center service of the library, the integration of information and intelligent technology has a significant impact on improving the overall operation efficiency and service level of the library. Through the introduction of these advanced technologies, libraries can perform their work more efficiently and provide users with more convenient, efficient and personalized services. The future Learning Center relies on the advantages of rich collection resources of university libraries, using indoor positioning and navigation system, so that users can accurately find each book; Relying on the subject resources of university library, VR and AR technology are used to create an immersive learning scene. Deeply integrate the data resources of the platform, continuously track and analyze the usage habits and behavior patterns of readers, in order to build detailed and accurate portraits of readers, and provide more personalized and tailored services to meet the needs of readers. In short, the integration of artificial intelligence technology into university libraries can not only effectively use the existing advantages and resources of libraries, but also significantly optimize user experience and further meet the personalized needs of users.

5.2. Attract professional talents and build a scientific and reasonable team structure

In the process of promoting the construction of future learning centers, talents undoubtedly occupy a core position and become an indispensable key resource and important support. As emphasized in the Guidelines for the Modernization of University Libraries, the construction of librarians and the improvement of their professional capabilities not only form the cornerstone of the high-quality development of libraries, but also the key to achieving continuous innovation and quality service[4]. These elements together constitute the inner logic and core driving force for the library to face the future and move towards modernization. Therefore, the construction and service of future learning need to attract professional talents and build a scientific and reasonable team structure.

First of all, strengthen the communication and exchange with the personnel department, guarantee the welfare benefits of talents with professional background, increase the introduction of talents, and ensure that talents with professional background and professional skills can get due attention and protection. Secondly, the training mechanism of librarians should be innovated. Through systematic training, practical exercise and academic research, the professional level of librarians in subject service and knowledge service should be continuously improved to better meet the needs and expectations of users. Finally, build a scientific and reasonable team of professionals. In personnel allocation, the expertise and interests of each librarian should be fully considered to ensure that the staffing is reasonable, so that everyone's ability can be maximized. At the same time, we should also establish an effective incentive mechanism and evaluation system to stimulate the enthusiasm and creativity of librarians and promote the continuous progress and development of the whole team.

5.3. Keep up with user needs and build a diversified theme space

The needs of library users show a remarkable diversity. In order to deeply respond to and effectively meet the diversity of such individual needs, the spatial planning and design of the Futurology center should also show a high degree of richness and diversity [5]. Set up targeted and cross-disciplinary space according to different

disciplines, these Spaces aim to provide specialized academic environment and resources for different disciplines, and then promote knowledge innovation and sharing; Based on the diversified needs of users, One Step has created a variety of functional Spaces, including live space to provide real-time academic exchanges, reading space to meet the needs of in-depth study, learning space to support independent learning and collaborative learning, and ancient books cultural experience space, aiming to inherit and carry forward the excellent traditional Chinese culture and provide users with an immersive cultural experience platform. Therefore, through diversified space design and transformation, the future learning Center can not only provide an innovative environment with academic atmosphere, but also further promote the dissemination and exchange of knowledge.

5.4. Multi-subject cooperation to build a high-quality service platform

The planning and implementation of the future learning center needs to involve multi-department and cross-functional collaborative efforts, which is not limited to the responsibility of the library or any single department, but requires the joint participation and promotion of the entire organization and even a wider range of fields [6]. First of all, it needs to be led by the library and actively participated by other units or departments to jointly build a high-quality service platform. For example, from the perspective of academic research, the Future Learning Center can seek deep cooperation with historical and cultural institutions such as revolutionary martyrs' memorials and museums to jointly build thematic learning Spaces centered on revolutionary martyrs, revolutionary heroic deeds or revolutionary sites. In this way, it can not only effectively integrate the resources of libraries and other institutions, realize resource sharing and complementary advantages, but also further expand the breadth and depth of learning content, and provide more rich and diversified learning experience for learners. This cross-multi-subject cooperation mode has important academic value and practical significance for promoting the in-depth development of academic research and promoting the dissemination and promotion of knowledge.

6. Conclusions

The construction of the future learning center of university library is not accomplished overnight, but a gradual process. By selecting some universities as pilots, we will continue to explore and innovate in order to optimize and improve the service quality of future learning centers, and finally build a user knowledge service platform with users as the center, librarians as the intermediary and technology as the support. In the construction and service of the future learning center, the library needs to continuously pay attention to the utilization rate of the space, and regularly solicit feedback and suggestions from users. Based on the dynamic changes of readers' needs, libraries should flexibly adjust management strategies, re-plan spatial functions, and promote the improvement and upgrading of service quality through continuous spatial optimization and iteration. In this way, libraries are able to ensure user satisfaction and continue to meet the diverse needs of their readers.

Conflicts of Interest

The author declares that there is no conflict of interest regarding the publication of this article.

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