

Development of Collection Resources in University Libraries in the Digital Age

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ABSTRACT

The development of collection resources in university libraries serves as the fundamental prerequisite to support teaching and research, as well as to meet the diverse information needs of teachers and students. Only with adequate collection resources can university libraries provide a rich variety of learning and research materials for teachers and students, and more importantly, offer vital support for the professionalization of disciplinary construction and the high-quality development of talent cultivation in universities. This paper elaborates on the significance of collection resource development, analyzes the existing problems, and proposes corresponding strategies targeting these issues, aiming to enhance the level of digital construction of collection resources in university libraries.

Keywords: Digitalization, University libraries, Collection resource development.

1. INTRODUCTION

The advancement of digital technologies has significantly transformed the ways through which individuals access information, while the value of digital resources in information retrieval and efficient dissemination has become increasingly prominent, which have further accelerated the pace of libraries' digital transformation. In the era of the rapid development of informatization, online information is characterized by complex content and uneven quality. Faced with massive online resources, libraries encounter both opportunities and challenges in developing digital resources. How to scientifically screen, optimally integrate these digital resources, and convert them into collection resources has become a dilemma in the process of library digital resource development. Therefore, in-depth exploration of the existing problems in the development of collection resources in university libraries and the proposal of targeted strategies play a crucial role in optimizing the resource development process, enhancing resource services, and facilitating the effectiveness of teaching and research.

2. SIGNIFICANCE OF COLLECTION RESOURCE DEVELOPMENT IN UNIVERSITY LIBRARIES

2.1 Facilitating the Educational Value of Collection Resources

Universities adhere to the fundamental principle of "fostering virtue and nurturing people" and shoulder the crucial mission of cultivating qualified builders and reliable successors for the nation. Their ideological and political education must align with the era's requirement of cultural confidence to consolidate the ideological foundation for talent cultivation. Housing abundant educational resources, university libraries can transform these resources into vivid educational materials through in-depth excavation. Libraries not only establish tight connections between university's development and students' personal growth but also effectively cultivates students' affection for the nation and the university, aiding them in shaping sound outlooks on life, values, and the world. In this process, students undergo subtle personality molding and elevation through their daily experiences of library services and management, thereby fully manifesting the educational value of libraries in ideological and political education.

2.2 Propelling the Digitization of Collection Resources

The digitization of collection resources holds profound significance for university libraries: it serves as both a critical measure for libraries to integrate into the informatization process of universities and a new path to exert their educational functions. Library culture embodies the core value of respecting history and facts. Leveraging this specific cultural carrier, librarians convert physical collection resources into more accessible digital resources. This approach is more readily accepted by students than abstract theoretical indoctrination, effectively enhancing their sense of participation and the persuasiveness of education. The continuous advancement of collection digitization further enriches digital resource reserves and optimizes users' experience in resource access. This positive cycle accelerates the digitization process and provides strong resource support for teaching and scientific research in universities.

3. EXISTING PROBLEMS IN THE CONSTRUCTION OF COLLECTION RESOURCES

3.1 Lack of Sufficient Attention and Systematic Development

For a long time, university libraries have lacked a clear positioning within the service guarantee system for teaching, research, and management, operating in a relatively isolated state on the whole. On one hand, universities fail to fully recognize the importance of collection resource development in their overall development planning and have not incorporated it into the core support system for overall planning. On the other hand, in-depth exploration and practice are lacking on how to activate collection resources for deep integration into the university's educational system. Additionally, the construction of collection resources fails to effectively integrate and interact with other core institutional systems, resulting in the absence of a clear development framework aligned with institutional characteristics, distinct resource features, and a passive service model — ultimately leading to developmental predicaments.

3.2 Inadequate Funding for Collection Resource Development

Currently, many universities have not fully recognized the significance of digital libraries, and relevant authorities provide insufficient funding for collection resource development, which hinders the procurement of advanced digital equipment and management platforms, severely impeding the implementation of library digitization initiatives. Consequently, digital resources remain inadequate, severely impeding the smooth progress of scientific research for teachers and students. Therefore, universities should attach greater importance to the construction of digital libraries, seek additional funding support from government agencies and social sectors, and thereby advance the development of digital collection resources in university libraries [1].

3.3 Deficiencies in Staff Professional Competence

University libraries urgently need to cultivate a high-caliber management team to underpin the stable development of library undertakings. Collection resource development encompasses critical links such as resource screening, cataloging, and the development of characteristic collections. However, most university libraries suffer from a noticeable lack of professional personnel in these core areas, which directly restricts the improvement of service quality. Firstly, there is a significant shortage of full-time acquisition staff. Insufficient personnel for resource research makes it difficult to accurately match teachers and students' needs for academic resources and characteristic documents, resulting in low utilization rates of some collection resources. Secondly, professional competence does not match job requirements. As digital transformation accelerates, there is an urgent need for interdisciplinary talents with both information processing capabilities and digital practical skills. The scarcity of such talents in existing teams leads to slow digitization progress and low service efficiency of digital resources. Thirdly, targeted training mechanisms are absent. Existing staff lack access to systematic learning in resource development, digital technology, and subject services, making it challenging to adapt to new requirements for collection development and hindering the implementation of high-quality collection services.

3.4 Lack of Characteristic Collection Resource Development

The development of characteristic collection resources in university libraries refers to the selection, targeted organization, processing, and utilization of distinctive professional literature resources closely aligned with the university's development history, key disciplines, and research directions [2]. However, many universities' collection resource development lacks distinct characteristics, adhering to a quantity-over-quality mindset that fails to meet the needs of teachers and students, thereby restricting the sustainable development. Taking the author's affiliated library as an example, the annual book loan volume plummeted from 224,612 copies in 2010 to 44,151 copies in 2018, and further to 19,867 copies in 2024. There are multiple factors for the low resource utilization. On one hand, readers' reading habits have shifted toward electronic devices for information retrieval and reading, yet the library's digital resource coverage remains insufficient. It has failed to establish characteristic databases tailored to the university's disciplinary strengths and key programs, resulting in monotonous themes and inadequate open access and utilization. On the other hand, mismatches between the structure of specialized collections and reader needs, coupled with delayed resource updates and other factors, further reduce overall resource utilization.

3.5 Inadequate Intelligent Management and Supporting Services

As core carriers of academic literature and cultural resources, university libraries possess abundant print and electronic resources, and their inherent academic attributes and cultural characteristics endow them with irreplaceable educational value, making them indispensable in the university's system of "fostering virtue through education". However, some universities suffer from insufficient investment in the application and management of digital information technology, with service models remaining at the transitional phase from manual operations to initial intelligentization. This hinders the full release of collection effectiveness and severely restricts the efficient dissemination and in-depth utilization of data resources. The specific manifestations are as follows: first, deficient intelligent management, which directly leads to the superficial development of collection resources, fails to support resource construction, further exacerbates low resource

visibility, and cannot meet the in-depth needs of academic research; second, libraries lack supporting services and reader engagement is low. Library resource development has failed to break free from the "auxiliary" mindset, leaving readers in a state of passive reception. This situation not only fails to match the personalized reading and disciplinary research needs of teachers and students but also further undermines the practical and educational value of collection resources.

4. STRATEGIES FOR THE DEVELOPMENT OF UNIVERSITY LIBRARY COLLECTION RESOURCES

4.1 Innovating Development Concepts and Increasing Funding Investment

As a vital platform for academic research and knowledge dissemination, university libraries should adopt a forward-looking thinking, keep pace with the times, actively integrate into and lead the digital industry trend, proactively pursue changes in service innovation, explore new pathways for digital transformation, expand cooperation channels, and establish diversified and open cooperation mechanisms and platforms^[3]. Libraries should actively advocate the significance of collection development to university administrators, promote the formulation of supportive policies at the institutional level, and increase funding investment to provide solid financial support. Meanwhile, libraries should establish an internal leading group in resource development headed by the library director, improve institutional systems, clarify development objectives, and ensure the standardized and orderly progress of collection resource development. Furthermore, libraries should optimize collection development by aligning with the university's disciplinary strengths, formulating scientific plans based on funding conditions, coordinating the structure and scale of books and periodicals, and building professional and specialized resource systems to effectively empower disciplinary development and cultural education.

4.2 Strengthening Education and Training for Library Staff

Library staff is a core force in the cultural education of university libraries, and their comprehensive competence directly impacts

educational effectiveness [4]. In the era of rapid digitization, there is an urgent need to build a team of librarians with interdisciplinary backgrounds, proficient digital technology skills, and expertise in resource services to better meet the demands of modern university collection resource development. First, establish training platforms to enhance staff awareness of resource development. Libraries should organize regular thematic training sessions to guide staff in deeply understanding the objectives and practical pathways of collection resource development and discipline service adaptation. Second, intensify training in digital technology and new media application capabilities. Libraries should conduct regular training on digital technology and new media applications, focusing on links such as book acquisition, resource screening, and digital processing in collection resource development. This aims to improve librarians' ability to use big data to analyze the needs of teachers and students and investigate resource preferences through new media platforms, ensuring that the acquired collection resources more accurately match university teaching and research. Third, establish a subject librarian service system. Precise collection development is essential to supporting the university's disciplinary construction, and subject librarians serve as key liaison and service hubs. Through communication with academic departments and tracking disciplinary trends, they can accurately translate cutting-edge needs into collection development directions, promoting synergy between resource construction and disciplinary advancement. Therefore, subject librarians should actively acquire disciplinary theoretical knowledge, stay updated on the latest academic research results, and grasp future disciplinary development trends to provide comprehensive information support for disciplinary construction [5].

4.3 Enhancing the Development and Utilization of Specialized Resources

In the pursuit of expanded scale, elevated status, and high-quality development, universities rely on libraries' specialized collection development as critical support for disciplinary advancement. This requires libraries to focus on disciplinary characteristics, develop dedicated resources, and provide targeted support for disciplinary construction. Libraries should attach greater importance to specialized database development, establish database development strategies centered on key specialized databases, update the

university's own database resources, and strengthen integration and exchange with databases of peer institutions and social sectors [6]. While advancing specialized database construction, libraries can also activate alumni resources. Distinguished alumni represent valuable intangible assets and specialized resources for universities—they serve as important forces in extending the cultural education chain and provide tangible spiritual guidance for current students. Libraries can leverage alumni resources to organize series of activities, such as offline lectures and online sharing sessions, utilizing alumni's industry influence and life experiences to strengthen the educational value of the library as a "second classroom" and stimulate students' intrinsic motivation for knowledge exploration. Additionally, establishing an "Alumni Donated Literature Section" and actively engaging outstanding alumni in book donation campaigns can enrich collection resources while extending cultural education efforts and enhancing spiritual guidance for current students.

4.4 Strengthening Digital Resource Development and Resource Sharing

Collection resource development serves as the resource foundation for libraries to provide literature services and academic support; moreover, building diverse collection systems further extends educational pathways and enhances library influence. First, intensify digital resource development. While consolidating the development of print resource, libraries should further increase investment in electronic resources and specialized digital resources. This not only enriches the categories of digital collections but also promotes information flow and the utilization of academic research achievements through open access to digital resources, breaking down existing academic barriers. Consequently, a growing number of university libraries have incorporated the principle of open access into their development charters^[7]. The development of digital resources accelerates digital transformation of libraries and provides digital support for the coordinated development of disciplinary construction and cultural education. Second, enhance inter-library resource sharing. To meet the research and learning needs of teachers and students, university libraries actively explore collaborative models and strive to build resource-sharing platforms. Taking Shandong Province as an example, university libraries have jointly established the "Shandong University Library Document Sharing Platform", which enables users

to conduct cross-institutional resource retrieval and borrowing through their own university's catalog system. This inter-provincial sharing platform not only initiates one-click document inter-library loan services but also expands resource access channels for teachers and students, further enhancing the interconnection and sharing of collection resources.

4.5 Enhancing Users' Information Literacy to Improve Resource Utilization

While advancing collection development, university libraries should actively provide information literacy training for target users to enhance their ability to utilize collection resources. The first is to build bridges for information literacy and provide platforms for capability development. Leveraging their unique resource advantages, librarians can actively collaborate with the Communist Youth League Committee, give full play to the role of the "second classroom", and carefully organize activities such as reading seminars, thematic collection interpretation, and practical training on information retrieval skills. These efforts help users gain in-depth understanding of the types, access pathways, and usage methods of collection resources, and effectively improve their ability to use these resources to meet learning and research needs. Second, strengthen embedded teaching to enhance students' information literacy. Currently, many university libraries offer information literacy courses, which help more teachers and students master information technologies and improve their information literacy and practical capabilities through teaching and learning interactions. By continuously exploring, proactively innovating and enriching training content can libraries enhance students' cognitive abilities and autonomy in using digital resources, thereby increasing the utilization rate of digital resources.

4.6 Advancing Intelligent Library Management

The rapid development of information technology presents new challenges for university libraries, which must introduce intelligent management systems to meet the demands of the times and optimize the quality of reader services. First, implement intelligent book lending systems to enable self-service borrowing and returning. While improving user services, libraries can use Radio Frequency Identification (RFID) technology for

book inventory and localization, quickly and accurately tracking book shelving status to facilitate management and allocation[8]. Second, optimize resource procurement decisions based on intelligent management systems. Leveraging the data analysis capabilities of these systems, libraries can integrate data such as reader borrowing records and electronic resource access frequency to generate "collection resource demand" lists, which provides a basis for book procurement. Third, encourage reader to participate in book recommendation. An intelligent management platform is added to the library homepage, with a dedicated "Reader Book Recommendation" channel. Readers can submit online recommendations for needed books, allowing libraries to adjust procurement plans accordingly and ensure collections more in line with actual usage needs. Currently, libraries are accelerating the integration of AI technology into management, leveraging AI-driven intelligent management to provide convenient services. This promotes the transformation of libraries from traditional service models to intelligent ones, significantly optimizing user experience and enhancing reader satisfaction.

5. CONCLUSION

Collection resource development constitutes a critical component of university library work, providing essential support for universities to fulfill the fundamental task of "fostering virtue through education" and advance the construction of world-class university. Faced with the development opportunities of the digital era, university libraries need to proactively seek changes and pursue innovative development, so as to establish collection resource systems and environments with their own university characteristics, and contribute to the high-quality development of universities.

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