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Analysis of Implementation Strategies for Innovative Library Services in the Construction of First-class Disciplines in Universities

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Abstract: University library plays a crucial role in the construction of first-class disciplines. This study aims to explore how library can innovate their services to promote the construction of first-class disciplines. By combining literature review and empirical analysis, this research analyzes relevant information and user situations in first-class disciplines, and proposes new initiatives for the construction of literature and information resources in universities. Measures such as optimizing the library's collection structure, highlighting the collection characteristics of first-class discipline literature, focusing on the construction of digital information resources for first-class disciplines, and rational allocation of journal resources can meet the literature needs of first-class disciplines better. Additionally, establishing a navigation database for first-class disciplines, implementing subject librarians, conducting in-depth information development and project tracking services, integrating web search engines, providing online consultation services, and building a repository of expert papers for first-class disciplines as innovative service functions can effectively promote the construction of first-class disciplines. The results of this study have significant implications for the role positioning and service innovation of university library in the construction of first-class disciplines.

Keywords: University Library; Top-tier Disciplinary Development; Innovative Services; Literature and Information Resources

1. Introduction

In recent years, the development of higher education in China has been booming, and the construction of first-class universities has become a common concern. It is well known that first-class disciplines are the foundation of building first-class universities, and discipline construction has become the core task of university development, even the fundamental basis for their survival and development. In discipline construction, the construction of first-class disciplines is a crucial link [1]. The number and level of first-class disciplines are not only important indicators of the level and quality of a university's education, but also key factors that determine its reputation and status in the academic and social fields.

As the literature and information center for teaching and research services, university library play an important role in the construction of first-class disciplines, and are an important support force for teaching, research, and discipline construction. Library is not only a treasure trove of academic resources, but also a platform for academic exchange and cooperation, providing rich literature and information resources and professional services for teachers and students. How to adapt to the needs of first-class discipline development under new circumstances, build a first-class discipline literature and information resource system, deepen information service work, and take participation in school first-class discipline construction as the best entry point to enhance their own service capabilities and establish their own brand characteristics, has become an opportunity and challenge faced by the current construction and development of university library, and is also the foundation for their survival [2].

This article aims to explore the relationship between first-class discipline construction in higher education and innovative services of

university library, and proposes corresponding strategies and suggestions. Through a review and analysis of relevant literature at home and abroad, combined with practical cases, this article aims to provide useful references and inspirations for the role positioning and service innovation of university library in first-class discipline construction. This article will discuss the relevant information and user analysis of first-class disciplines, new initiatives for the construction of literature and information resources for first-class disciplines in universities, and the content and approaches of university library serving first-class discipline construction. Through this research, we hope to explore the relationship between first-class discipline construction and innovative services of university library in higher education, and provide useful ideas and suggestions for the role positioning and service innovation of university library in first-class discipline construction, further promoting the coordinated development of university discipline construction and library development, and making positive contributions to the progress and development of higher education.

2. Analyzing the Research Resource Connotation of First-class Disciplines and Providing Precise Book Service Demands

2.1 Analyzing the Distribution Characteristics of Research Resources in First-class Disciplines and Establishing Precise Literature Collection Service Levels

In the construction of first-class disciplines in universities, it is crucial to understand the distribution of first-class disciplines and the corresponding levels of literature collection. Firstly, it is necessary to analyze the level of first-class disciplines and determine whether they are at the national, provincial, or university level. Secondly, it is important to understand the categories of first-class disciplines, whether they belong to humanities, natural sciences, or engineering. Furthermore, it is necessary to understand the research directions of first-class disciplines and analyze their characteristics and advantages. Lastly, it is important to understand the professional composition, curriculum system, and authorization points for master's degrees in first-class disciplines in order to have a

comprehensive understanding of the content features, key areas, and trends of the discipline. Through extensive investigation and comparative analysis, the literature collection level of first-class disciplines can be determined, and collection targets can be set reasonably. For national-level first-class disciplines, efforts should be made to achieve comprehensive literature collection. For provincial, ministerial, and university-level first-class disciplines, literature collection should be focused on research-level materials to meet the teaching and research needs of higher-level readers.

2.2 First-class Disciplines and the Structure of Research Teams, Providing Customized Literature Services

In discipline construction, the core of first-class disciplines lies in the teaching and research level and the strength of the discipline team. Therefore, understanding the situation of the discipline team is of great guiding significance and specific goals for the library's work. In order to provide optimal literature construction guidance, it is necessary to have a comprehensive understanding of various aspects of the discipline team, including the discipline leaders and the structure of the discipline echelon, as well as the title structure, educational background, professional structure, age structure, research directions, and foreign language proficiency. Additionally, we also need to understand the reading habits and patterns of the scientific team. Only with a clear understanding can we provide better services for the discipline team. By deeply understanding the structure and literature needs of first-class discipline teams, the library can better meet the information needs of users. We can provide customized literature services, including literature procurement, journal subscriptions, and digital resource access, based on the characteristics and needs of the discipline team. At the same time, through training and guidance, we can improve the efficiency and quality of users' utilization of library resources, and promote the improvement of the teaching and research level of the discipline team. It is evident that understanding the structure and literature needs of first-class discipline teams is an important part of the construction of first-class disciplines in universities and the innovative

services of library. By deeply understanding the distribution of first-class disciplines, the level of literature collection, and the structure and literature needs of the discipline team, the library can provide more accurate and personalized services, contributing to the construction and development of first-class disciplines in universities. This in-depth understanding not only helps the library better meet the information needs of the discipline team but also promotes the improvement of the teaching and research level of the discipline team, further advancing the development and innovation of the discipline [2].

3. New Initiatives in Literature and Information Resource Construction in First-Class Discipline Development in Universities

3.1 Optimizing the Library Collection Structure and Highlighting the Characteristics of First-Class Discipline Literature Collection

In the development of first-class disciplines in universities, the library's collection construction is an important material foundation. In order to support the teaching and research work of first-class disciplines, the library needs to optimize its collection structure and highlight the characteristics of first-class discipline literature collection. Firstly, the library should conduct in-depth investigations and understand the literature materials required by first-class disciplines, and formulate procurement plans that are suitable for first-class discipline development[3]. This means that the library needs to comprehensively, systematically, long-term, and stably collect literature materials in various formats related to first-class disciplines, focusing on quality and reducing duplicate purchases. For professional books that have an impact on various stages of the development of first-class disciplines, the library should collect, organize, and preserve them comprehensively, especially authoritative professional publications and essential tools and reference books from both domestic and international sources. In addition, the library should strengthen the collection of original materials and grey literature, taking into account relevant disciplines and interdisciplinary studies, to form a high-quality collection structure that matches the first-class disciplines.

3.2 Building a Comprehensive and Multi-dimensional Digital Information Resource Construction for First-Class Disciplines

With the continuous advancement of information technology, the structure of library collections is undergoing changes, with an increasing proportion of electronic and digital information resources. Therefore, while ensuring an appropriate proportion of print literature, the library should acquire relevant electronic publications, such as microfilms, CDs, tapes, audiovisual materials, etc[4]. In addition, the library should purchase digital information resources such as electronic encyclopedias, electronic book CDs, full-text electronic journal CDs, conference papers, and thesis databases. In order to improve query efficiency, the library should increase funding for accessing first-class discipline professional databases, large library, professional websites, and other query qualifications. At the same time, the library should establish a bibliographic database, accelerate the virtualization of collection construction, achieve resource sharing, and gradually form an information resource system with various formats of literature that has the characteristics of the library.

3.3 Reasonably Constructing Journal Resources around the Frontiers of First-Class Discipline Development

Journals play an important role in providing scientific and technological intelligence information, accounting for 65%-70% of the global scientific and technological intelligence information. Therefore, when subscribing to journals, university library should strengthen their connections with teachers and researchers, involving discipline leaders and relevant experts in the selection of journals. The library should comprehensively and systematically collect journals related to first-class disciplines and selectively collect journals related to other disciplines. For core journals in first-class disciplines, the library should maintain their continuity and gradually transition from subscribing to print journals to electronic and digital formats. In addition, the library should

strive to collect Chinese journals as completely and systematically as possible, and pay attention to the scientific and rational procurement of foreign journals that are in line with the first-class disciplines of the university, in order to meet the needs of discipline leaders for the latest scientific and technological developments abroad.

4. Analysis of Innovative Approaches to First-Class Discipline Construction in University library

4.1 Establishing a Standardized Discipline Navigation Library in line with First-Class Discipline Development

Establishing a first-class discipline navigation library is one of the important ways for university library to provide services for first-class discipline construction. By establishing a first-class discipline navigation library, the library can provide convenient and efficient information retrieval and utilization for the faculty and students, thus providing strong support and guarantee for discipline construction. In order to ensure the quality of the navigation library, the library should select academically strong, high-quality, and relatively stable resources for exploration and organization, rather than simply collecting and assembling relevant web pages. The library should organize specialized technical personnel to systematically collect and organize information based on the needs of first-class disciplines, the current development status of the discipline both domestically and internationally, and user requirements. These technical personnel should possess professional knowledge and skills in information science, library science, and other related fields, and be proficient in using various information retrieval tools and techniques to ensure the quality of the navigation library's information [5].

During the process of information collection and organization, attention should be paid to the accuracy, completeness, and timeliness of the information to meet the users' needs for disciplinary information. The library can collaborate closely with discipline teachers and researchers to understand the latest developments and demands of the discipline, and update and improve the content of the navigation library in a timely manner. In

addition, the library can utilize modern information technologies such as natural language processing and data mining to analyze and organize a large number of academic literature and research achievements, providing more accurate and comprehensive discipline navigation services. The adoption of the CALIS classification standard for information classification is an important means to establish a first-class discipline navigation library. The CALIS classification standard is a set of classification standards formulated by the China Academic Library & Information System (CALIS), which is scientific, standardized, and practical. By using the CALIS classification standard for information classification, the information structure of the navigation library can be clearer, and the classification more accurate, facilitating user retrieval and utilization. At the same time, the library can customize and adjust the CALIS classification standard appropriately according to the characteristics and needs of the discipline to meet the information organization and retrieval needs of different disciplines.

Establishing a first-class discipline navigation library requires the library to have certain technological and personnel support. The library should establish a dedicated technical team responsible for the construction and maintenance of the navigation library. The technical team should possess professional skills in information collection, organization, classification, and management, as well as a keen sense and application ability for new technologies and methods. They should be familiar with the use of various databases and retrieval tools, and be able to flexibly apply various technical means to process and analyze information. In addition, the library should strengthen communication and cooperation with discipline teachers and researchers to understand the latest developments and demands of the discipline, providing strong support and guarantee for the construction of the navigation library.

4.2 Establishing a First-Class Discipline Librarian System with Multiple Knowledge Systems

Discipline librarians play a crucial role in university library. They not only possess rich professional knowledge in library science,

computer and network operation skills, but also have deep disciplinary knowledge and sensitivity to information. Discipline librarians can deeply understand the historical evolution and development trends of the disciplines they serve, familiarize themselves with representative literature, and provide professional readers with the latest domestic and international research trends and cutting-edge information. They are adept at discovering, collecting, promoting, and disseminating the latest professional literature and information, and using advanced technological means to organize and disseminate information for readers' retrieval.

Moreover, the implementation of the discipline librarian system is of great significance for the innovative services of university library. Firstly, the professional knowledge and skills of discipline librarians enable them to better meet the needs of professional readers. They have an in-depth understanding of the development dynamics of the discipline, and can provide the latest research results and frontier information, thus providing strong support for disciplinary research. Secondly, discipline librarians are skilled in using advanced technological means to organize and disseminate information, making it more convenient for readers to access the required information. By exploring, collecting, and promoting the latest professional literature and information, they provide valuable resources for disciplinary research. In addition, discipline librarians establish fixed service relationships with first-class disciplines, enabling them to better understand the needs of the discipline and provide targeted book preparation and information support for discipline development.

However, the implementation of the discipline librarian system also faces challenges and issues. Firstly, discipline librarians need to possess extensive disciplinary knowledge, not only understanding the basic theories and methods of the discipline but also paying attention to the frontier dynamics and hot issues of the discipline. This poses higher requirements for the comprehensive qualities of discipline librarians. Secondly, discipline librarians need to maintain close contact and cooperation with discipline teachers and researchers, understanding their needs and feedback in order to provide better services. In addition, discipline librarians need to continuously update their knowledge and skills to keep pace with the development of the discipline.

4.3 In-depth Information Development and Tracking Services for First-class Disciplinary Research Projects

In order to better meet the teaching and research needs of our first-class disciplines, the library can take a series of in-depth measures in information development and research project tracking services. Firstly, the library can gain a deep understanding of the objectives, content, and progress of disciplinary research projects. Through research on various information sources such as library collections, CD databases, and online resources, relevant literature materials related to the projects can be extensively collected. These literature materials will undergo in-depth processing to extract and consolidate relevant information, and establish thematic databases, specialized databases, abstract databases, etc., for dissemination to teaching and research personnel.

The role of the library in information development and research project tracking services is not only to provide literature resources but also to provide targeted support for teaching and research personnel. The library can provide targeted services based on the research directions of first-class disciplines, ranging from project proposal to outcome evaluation. This includes providing relevant literature support for project proposal for teachers, tracking and analyzing the progress of research projects for researchers, and providing necessary literature support for outcome evaluation. Through such services, the library can save time and effort for teachers and accelerate the progress of teaching and research.

The role of the library in information development and research project tracking services is not only to provide information resources but also to provide professional support and guidance for teaching and research personnel. By gaining a deep understanding of the needs and progress of disciplinary research projects, the library can provide customized services for teachers and researchers to help them carry out teaching and research work more effectively. The implementation of such

services will further enhance the service level of the library and provide strong support for the innovation and development of disciplines.

4.4 Integrating Web Search Engines for First-class Disciplines

Web search engines are the primary tools for information retrieval in the current era. They have advantages such as intelligence, wide coverage, high retrieval recall rate, strong timeliness, and low cost. In view of these advantages, the library should conduct comparative research on commonly used web search engines and organize the comparative results into web pages for transmission to the library's homepage. This way, users can conveniently access the library's homepage and learn about recommended professional search engines related to first-class disciplines. At the same time, the library can provide relevant usage guidelines and tips to help users make better use of these search engines for information retrieval.

In the process of integrating web search engines, the library needs to comprehensively evaluate and compare commonly used web search engines. The evaluation criteria for these search engines include accuracy and relevance of search results, ranking algorithms, retrieval speed, user-friendly interface, and other aspects. By evaluating these criteria, the library can select professional search engines related to first-class disciplines and include them in the integration scope. The comparative results should be organized into web pages and transmitted to the library's homepage. This way, users can conveniently access the library's homepage and learn about recommended professional search engines related to first-class disciplines. At the same time, the library can provide relevant usage guidelines and tips to help users make better use of these search engines for information retrieval.

The library should regularly update the integrated web search engines to ensure synchronization with the latest developments in first-class disciplines. With the continuous development of disciplines, new professional search engines may emerge or existing search engines may be updated[6]. Therefore, the library needs to closely monitor the development trends of disciplines and update the integrated search engines in a timely

manner to provide users with the latest and most accurate information retrieval tools.

4.5 Providing Scientific and Professional Online Consultation Services

Online consultation services are the trend in library reader services. Through advanced online tools such as email, web forms, FAQs, and electronic bulletin boards, library can provide convenient and efficient online consultation services to readers. For top-tier disciplinary online consultation services, library should focus on addressing issues related to internet searches, data retrieval, information downloading, and transmission. Additionally, library should enhance comprehensive communication and interaction with top-tier disciplinary experts, providing personalized consultation services.

Online consultation services are an integral part of library reader services and a trend in library services. Through advanced online tools such as email, web forms, FAQs, and electronic bulletin boards, library can provide convenient and efficient online consultation services to readers. This service not only saves readers' time and effort but also improves the efficiency and quality of library services. For top-tier disciplinary online consultation services, library should focus on addressing issues related to internet searches, data retrieval, information downloading, and transmission. library should provide personalized consultation services based on readers' needs to help them solve practical problems. Furthermore, library should strengthen comprehensive communication and interaction with top-tier disciplinary experts to understand the latest developments in the field and readers' needs, in order to provide better services. To improve the quality and efficiency of online consultation services, library should establish a comprehensive consultation service system. This system should include the process of consultation services, a standard answer database, evaluation, and feedback mechanisms. By establishing this system, library can better manage the consultation service process and improve the quality and efficiency of services. In addition, library should actively promote online consultation services to increase readers' usage and satisfaction. library can promote the advantages and usage methods of online

consultation services through publicity, training, and other means to encourage readers to actively utilize this service[7].

4.6 Building a Top-tier Disciplinary Expert Resource Database

The top-tier disciplinary expert resource database is an electronic and networked database of experts in national or provincial-level top-tier disciplines at universities. Its aim is to form a collection of resources with academic authority and advantages. library organize specialized technical teams to collect, archive, and organize these experts' papers, patents, and achievements through various channels such as the library's resources, expert contributions, and published materials. To maintain the innovation and concentration of the top-tier disciplinary expert resource database, library take corresponding measures such as rapid data updates so that readers can quickly understand the latest developments in academic research and technological advancements at home and abroad, and grasp the development direction of top-tier disciplines. This initiative greatly promotes the construction of top-tier disciplines.

The construction of a top-tier disciplinary resource database can better promote disciplinary development. Firstly, through electronic and networked means, the resource database of expert papers, patents, and achievements can better preserve and disseminate the research results of top-tier disciplinary experts, improving the accessibility and usability of academic resources. Secondly, the construction of the resource database provides convenient retrieval and citation tools for academic research, facilitating scholars in conducting cutting-edge research and academic exchanges.

Furthermore, the resource database can provide important reference for disciplinary evaluation and academic assessment, offering scientific support for disciplinary development. To ensure the quality and influence of the top-tier disciplinary expert resource database, library needs to strengthen its management and maintenance. Firstly, library should establish a comprehensive mechanism for collecting and archiving expert papers, patents, and technological achievements to ensure the comprehensiveness and accuracy of resources. Secondly, the content of the resource database should be regularly updated to include the latest research achievements of experts. Additionally, convenient retrieval tools and services should be provided to meet readers' needs for academic information.

References

[1] Okunlaya, R.O., N.S. Abdullah, and Alias R.A., Artificial intelligence (AI) library services innovative conceptual framework for the digital transformation of university education. Library Hi Tech, 2022. 40(6): p. 1869-1892.

[2] Ugwu, C.I., Ekere J.N., The role of knowledge management in providing innovative services in university libraries in Nigeria. Global Knowledge, Memory and Communication, 2018. 67(6/7): p. 350-376.

[3] Feng, X.X., Chi, Z., Current Status and Inspiration of Knowledge Base Construction for Libraries in "Double First-class" Colleges and Universities. 2020.

[4] Ping, Z., Chen. Y., Research on Marketing Strategies of Library Discipline Service Under the Background of "Double First-Class" University Project. 2020.

[5] Yang, Z. The Enhancement of Academic Library Subject Services According to Discipline Articles Analysis. The Serials Librarian, 2022. 83(1): p. 38-50.

[6] Ferreira J.M., Fernandes C.I., Veiga P.M., The effects of knowledge spillovers, digital capabilities, and innovation on firm performance: A moderated mediation model. Technological Forecasting & Social Change, 2024. 200: p. 123086-.123095

[7] Therese, F., .Jason L.Y., Anne, T., Marcel. B. Open innovation in the public sector: A research agenda. Technovation, 2024. 131: p. 102940-102939