

Research on the Competency Development of University Librarians in the New Era

Lili Zheng

Library of Inner Mongolia University of Science and Technology, Baotou, Inner Mongolia, China

Abstract: The rapid development of information technology in the new era has led to profound changes in the functions and service models of university libraries. This paper examines these transformations, focusing on key areas such as the central role of digital resources, the personalization and automation of services, the expansion of knowledge services, and the increasing diversification of spatial needs. In response to these changes, the paper outlines the essential professional knowledge, skills, and competencies required for university librarians, including expertise in information management, educational and training capabilities, professional ethics, teamwork and leadership, as well as the ability to innovate and deliver high-quality services. Furthermore, the study proposes strategies for enhancing librarians' competencies, such as strengthening fundamental skills through both internal and external learning, improving practical abilities through hands-on experience, utilizing senior librarians as mentors, and establishing effective incentive mechanisms and career development plans. The paper highlights the crucial role of librarian competency development in improving library services and supporting the broader goals of teaching and research within universities.

Keywords: New Era; University Librarians; Competency Development; Library Services; University Development

1. Introduction

In the context of the new era, the widespread adoption of internet technology, the in-depth analysis of big data, and the intersection and innovative application of emerging technologies such as blockchain and artificial intelligence have revolutionized the methods of knowledge dissemination and acquisition in

libraries [1-5]. As essential repositories of knowledge and core institutions supporting academic activities [6], university libraries have undergone profound changes in their functions and service models. Librarians, as the key implementers of library services, play a critical role in determining whether university libraries can effectively meet the diverse needs of readers in this new environment. Consequently, librarians must possess the skills and capabilities necessary to tackle new challenges and meet higher-level service demands [7,8]. Therefore, in-depth research into the competency development of university librarians is crucial for enhancing the quality of library services and effectively promoting the development of teaching and research activities in universities.

2. Changes in the Functions and Services of University Libraries in the New Era

2.1 The Dominant Role of Digital Resources in Libraries

With the proliferation of digital resources such as e-books, e-journals, and academic databases, the collection structure of university libraries has shifted from being predominantly paper-based to being primarily digital [9,10]. These vast digital resources have become a critical source of knowledge for faculty, students, and researchers. To ensure librarians can provide precise and high-quality services when users seek information, they must be thoroughly familiar with various digital resource platforms. Not only must they master search techniques, but they must also deeply understand content update mechanisms and other related aspects, thereby developing exceptional skills in managing and retrieving digital resources.

2.2 The Upgrade of Service Delivery

As intelligent devices and systems, such as smart bookshelves, automated borrowing and return systems, and intelligent consultation

robots, continue to be applied, library services are becoming increasingly automated and intelligent. In response, librarians must enhance their own skills and competencies. Librarians are expected to scientifically manage and maintain these intelligent systems, as well as leverage the data generated during their operation to optimize and improve library services. Furthermore, when intelligent services are unable to meet the complex needs of faculty and students, librarians must intervene promptly, providing effective manual support to ensure that user demands are properly addressed.

2.3 The Upgrade of Service Spaces

Upgrading Learning Spaces: In order to accommodate the varied needs of readers—such as individual study, group reading, discussions, and collaborative learning—libraries must provide a range of learning spaces. These include quiet study rooms, furnished with sufficient desks, chairs, and lighting, to enable readers to focus on their work or reading. Libraries should also create personalized teaching and research rooms, equipped with multimedia facilities, whiteboards, and other tools, allowing readers to engage in team-based project discussions or group activities.

2.4 Deepening Knowledge Services

Personalized Knowledge Services: University libraries have transcended the traditional model of simple borrowing services, with the rise of diversified, personalized services such as information consultation and knowledge services. For example, when serving academic research teams, librarians are required to conduct subject-based information analysis, understand the cutting-edge trends in their research fields, and assist researchers in identifying key directions for their studies. When supporting faculty in teaching, librarians must leverage their professional expertise to integrate teaching resources, offering a wealth of diverse materials for instructors. To ensure the high-quality delivery of these services, librarians must possess the insight to proactively understand the needs of faculty and students, tailoring personalized service plans based on those needs to better meet the demands in areas such as research and teaching.

Deepening Information Literacy Education: As

the primary educational platform for information literacy within the university, the library positions librarians not only as resource managers but also as key facilitators of information literacy education. This requires librarians to possess the ability to design and deliver multi-level, personalized information literacy training courses. These courses should cover a broad spectrum, from basic information retrieval techniques to complex data analysis methods and academic integrity, among other important topics. Through workshops, lectures, and other training methods, librarians can elevate the information literacy levels of faculty and students, equipping them with the skills to efficiently acquire, analyze, and utilize information in their academic research and learning processes.

3. Competencies Required for Librarians in University Libraries in the New Era

3.1 Professional Knowledge and Skills

Expert Knowledge Base: Librarians possessing a robust theoretical foundation are better equipped to provide high-quality services to faculty and students. This includes a thorough understanding of traditional methods such as literature classification, cataloging, and information retrieval, as well as staying up-to-date with the latest research in library and information science, and related fields.

Subject-Specific Expertise: Librarians must have a clear understanding of the research directions, key topics, and academic trends in various disciplines within the university, particularly those in high-priority fields and specialties. Additionally, librarians should develop competency in subject-specific services and actively engage in academic development, thereby enhancing their ability to support faculty and students effectively. For instance, assisting in the creation of knowledge repositories for specific departments or providing crucial information for academic assessments.

Basic Operational Skills: Librarians must be proficient in operating, maintaining, and upgrading library systems, including managing book lending, user information, and other essential processes, ensuring the smooth functioning of daily library operations. They should also be skilled in database management techniques, including data storage, backup, and

restoration, and familiar with technical aspects of digital resources, such as format conversion and copyright management.

Application of Emerging Technologies: Librarians need to master the use of emerging technologies such as artificial intelligence (AI) and big data within the library sector. For example, employing AI to enhance the functionality of virtual librarians for intelligent consultation services. Tools such as SQL and Python for data mining and analysis should also be utilized to understand the reading habits and needs of faculty and students, thus refining resource acquisition strategies and service designs to improve overall service quality.

3.2 Educational and Training Abilities

Information Literacy Competence: Librarians must possess advanced information literacy skills to assist faculty and research teams in locating cutting-edge research materials. This involves proficiently navigating various specialized databases and search tools to efficiently filter out irrelevant data and pinpoint the desired information. Moreover, librarians should be capable of performing comprehensive analysis, identifying emerging trends, and uncovering interconnections within the retrieved data. Such expertise ensures the integration of high-quality, valuable content from vast digital resources, enabling librarians to effectively support academic and research needs.

Information Literacy Education Abilities: Librarians are also responsible for delivering tailored information literacy training programs to faculty, students, and researchers. These programs should be designed according to the distinct needs of various user groups—undergraduates, graduate students, and faculty members. Training methods should be diverse, including lectures, hands-on practice, and online tutorials, to accommodate different learning styles. By enhancing the information literacy of users, librarians play a crucial role in fostering academic innovation, supporting research activities, and facilitating the effective dissemination of knowledge.

3.3 Personal Professional Qualities and Abilities

Strong Communication and Expression Skills: Librarians must be adept at establishing

effective communication with library users, fostering positive relationships and promptly addressing their needs and concerns. They should have the ability to simplify complex concepts and convey them in an easily understandable manner, ensuring that readers can grasp and apply the knowledge. Additionally, librarians must be capable of clearly and accurately communicating the library's services and usage instructions to users, enhancing their overall experience.

Exemplary Professionalism: Whether interacting face-to-face with library users or communicating through online platforms, librarians should consistently demonstrate a wholehearted commitment to serving the needs of their patrons. Maintaining a professional and service-oriented attitude is crucial to creating a welcoming and supportive environment, thereby enhancing the overall library experience for all users.

3.4 Teamwork and Management Skills

Team Collaboration Skills: The work in a library often necessitates seamless coordination between various departments. For instance, the processes of book acquisition, cataloging, shelving, and circulation are interdependent, requiring librarians to collaborate effectively with colleagues. This collective effort fosters an efficient working team that can successfully accomplish the daily tasks and responsibilities of the library.

Project Management Abilities: Librarians must possess skills in project planning, organization, coordination, and control to manage various initiatives, such as the library's digital development or information literacy training programs. They need to allocate resources strategically and ensure that projects proceed according to plan, ultimately achieving the desired outcomes within the established timeline.

3.5 Service and Innovation Competencies

User Service Awareness: Librarians should consistently uphold a reader-centered approach, dedicating themselves wholeheartedly to meeting the needs of library users. This involves proactively understanding the needs of patrons, establishing effective feedback mechanisms, and gathering user suggestions through various channels. By continuously responding to these inputs, librarians can

enhance service quality, thereby driving the evolution and improvement of library services. **Innovative Thinking Capabilities:** Librarians must be willing to explore new service models and methodologies. For instance, incorporating virtual reality (VR) and augmented reality (AR) technologies to offer readers immersive knowledge experiences. Furthermore, fostering collaborations with other academic libraries to share resources and service experiences can help transcend the traditional limitations of geography and resources, ultimately providing users with richer and higher-quality services and materials.

4. Strategies for Enhancing Librarians' Competencies in the New Era

4.1 Strengthening Core Competencies Through Internal and External Learning

Self-Directed Learning: With the rapid development of the internet, an abundance of online resources has become available. Librarians should take full advantage of these resources to solidify their professional foundation. Platforms like Coursera and EdX offer specialized library science courses that can significantly improve librarians' professional knowledge and skills. In addition, keeping up with authoritative international journals and academic publications—such as *Library Trends*, *The Journal of Academic Librarianship*, *Chinese Journal of Library Science*, and *Journal of Academic Libraries*—enables librarians to stay updated on the latest research findings and best practices in the field. By studying these resources, librarians can apply new insights to their daily work, enhancing service quality and promoting continuous professional growth.

Internal Training Programs: Regular internal training sessions are crucial for improving the competencies of library staff. Libraries should organize targeted training activities on the latest developments in library science, emerging technologies, and other pertinent topics. Inviting experts and professionals to lead these sessions can help librarians stay informed about new trends and tools, fostering a culture of ongoing learning and improvement.

External Learning Opportunities: Librarians should be encouraged to attend both national and international conferences, academic seminars, and professional training courses.

These events offer valuable opportunities to broaden their perspectives and gain insights from experts and peers in the field. Participating in conferences such as the Library Union Conference or the Chinese Library Association Annual Meeting will allow librarians to learn from the latest research findings, practical case studies, and academic exchanges presented by authoritative figures, experts, and scholars in the library sector. These events provide an opportunity to stay updated on the latest developments in the field, emerging service philosophies, and the application of new technological methods, thereby gaining a deeper understanding of the evolving trends in library development.

Engagement in Professional Networks: Joining Chinese and international librarian communities and online forums, such as “Library and Information Science Circle”, can be immensely beneficial. These platforms provide opportunities for librarians to engage in meaningful exchanges with peers from different countries, gaining insights into diverse service models, innovative practices, and emerging trends. Such interactions encourage creative thinking and help broaden professional perspectives.

Furthermore, fostering a collaborative learning environment within libraries is essential. Libraries should encourage librarians to share their work experiences and case studies, facilitating mutual learning and skill development. Organizing thematic workshops, such as those focusing on subject-based services or the role of subject librarians, provides a platform for librarians to exchange ideas, discuss challenges, and explore solutions. These collaborative activities enhance communication, deepen professional understanding, and create a culture of continuous improvement.

4.2 Strengthening Professional Competence Through Practical Experience

Librarian Exchange and Job Rotation: Facilitating exchanges between librarians from different universities or public libraries allows librarians to directly experience and understand diverse service philosophies and management models. By learning from the advanced practices of other libraries, they can bring back valuable insights to enhance their own institutions. Additionally, implementing a

job rotation system helps librarians gain familiarity with different aspects of library operations, fostering well-rounded professional development. This approach not only cultivates comprehensive skills but also strengthens teamwork, cooperation, and overall work quality.

Project-Based Practice: Actively engaging librarians in various library projects—such as digital resource development, information literacy promotion, subject-specific services, and intellectual property services—provides opportunities to apply theoretical knowledge in real-world settings. These hands-on experiences improve practical skills, enhance team cohesion, and strengthen collaboration. Furthermore, encouraging librarians to participate in industry-academia partnerships with enterprises and research teams allows them to work on technical research, service innovation, and other collaborative initiatives. In this process, librarians can leverage their professional expertise while also learning from corporate innovation strategies and research methodologies, thereby improving their research capabilities and practical skills.

Internal Collaboration: Strengthening collaboration with the university's teaching and research departments is essential. By gaining a deeper understanding of their needs, librarians can work alongside faculty and researchers to drive improvements and innovations in library services, better supporting the university's academic and research endeavors.

Inter-Library Collaboration: Actively fostering collaboration with other university libraries, public libraries, and particularly libraries from sister institutions is crucial for expanding professional networks and knowledge. Joint activities such as academic lectures, business training, exhibitions, and collaborative research initiatives allow librarians to explore innovative services and management practices at other libraries. This collaborative exchange provides opportunities to learn from one another, broaden professional perspectives, and contribute to the collective advancement of the library profession.

4.3 The Role of Senior Librarians as Exemplars and Mentors

Senior librarians should be utilized as exemplars, showcasing their high standards,

professional expertise, and strong work ethic through the promotion of their achievements. By highlighting their accomplishments, libraries can demonstrate the values of excellence, dedication, and skill, providing younger librarians with inspiring role models and clear goals to aspire to. Through the mentorship of senior librarians, younger staff can receive guidance tailored to their individual needs and work contexts. This guidance can help them formulate personalized learning plans, engage deeply with library and information science literature, stay abreast of cutting-edge developments in the field, and actively participate in various training programs and academic activities, thereby accelerating their professional growth. Moreover, senior librarians can serve as invaluable mentors by leading teams composed of junior staff, with senior librarians holding leadership roles. These teams can design development programs aimed at improving professional competencies, helping young librarians identify research directions, and encouraging them to apply for high-level projects and research initiatives. Through activities such as workshops, seminars with experts and scholars, and personalized one-on-one coaching, librarians can enhance their academic writing skills, research capabilities, and overall professional performance.

4.4 Incentive Mechanisms and Career Development Planning

Establishing Incentive Mechanisms: It is essential to create a well-structured incentive system that recognizes and rewards librarians for outstanding achievements in academic research and professional work. For instance, librarians who receive accolades in academic conference paper competitions should be duly recognized and rewarded. Such incentives not only fuel librarians' enthusiasm for learning and creativity but also enhance their motivation to improve their academic and practical skills. By fostering a culture of recognition, libraries can encourage librarians to innovate within their field and contribute significantly to the advancement of library services.

Career Development Planning: Tailored career development pathways should be provided based on librarians' professional backgrounds, interests, and areas of expertise. For example,

librarians with strong subject knowledge and exceptional service skills could be promoted to subject librarians, while those specializing in information literacy education could be supported in becoming recognized experts in the field. By offering clear career progression options, libraries can help librarians recognize the direct connection between their professional growth and career advancement, thereby motivating them to pursue continual development and reach their full potential.

5. Conclusion

The development of librarians' competencies in the new era is a long-term and systematic endeavor that requires the collaborative efforts of both university libraries and their librarians. As the functions and service demands of libraries continue to evolve, university libraries must recognize the critical importance of librarian competency development and enhancement. Only when librarians are fully equipped with the skills necessary to adapt to the demands of the new era can university libraries effectively meet the transformative needs of the information age. This will not only improve the quality of library services but also facilitate the smooth progress of teaching and research activities within universities. Ultimately, this will provide a solid foundation of knowledge and information support for the vigorous growth of higher education institutions, propelling them towards greater quality and innovation.

Acknowledgements

Special thanks are extended to the "2022 Inner Mongolia Autonomous Region Directly Affiliated Universities Basic Research Fund Project (Library Support for the High-Quality Development of Higher Education Institutions, 0303052201)" and the "Inner Mongolia University of Science and Technology University-Level Project (Analysis and Exploration of the College Librarians' Role in

Cultivating Students' Data Literacy Model)" for their support of this article.

References

- [1] Zhang Yingjie. Library's "Internet +" service in the era of Big Data. *Cultural Industry*, 2023 (26): 82-84.
- [2] Wen Rou. Strategies for Enhancing Librarians' Service Competence in the "Internet +" Era. *Journal of Library Science*, 2017, 39 (01): 46-48.
- [3] Liu Jihui. On Librarians' Service Ability of Network Information Under the Background of Big Data. *Journal of Heihe University*, 2019, 10 (10): 211-212.
- [4] Lei Zhongkai. New Models for the High-Quality Development of Libraries under Technological Empowerment. *Library*, 1-7 [2025-02-18]. <http://kns.cnki.net/kcms/detail/43.1031.g2.20250213.1140.002.html>.
- [5] Zhao Lihua. Innovative Service Path of Smart Libraries. *Cultural Industry*, 2025, (03): 79-81.
- [6] Guan Xiangning, She Xinyuan. Construction and improvement of librarians' ability under the background of future learning center of library. *Jiangsu Science & Technology Information*, 2024, 41 (04): 76-79.
- [7] Ma Jingwen. The "Wisdom" of Smart Librarians. *Cultural Industry*, 2025, (03): 82-84.
- [8] Wang Xin. Repositioning the Role of Smart Librarians in the Age of Digital Intelligence. *Media Forum*, 2025, 9 (02): 115-117.
- [9] Xu Dejun. New Digital Horizons for University Libraries. *Cultural Industry*, 2025, (01): 7-9.
- [10] Li Zhiying. Research on the High-Quality Construction of Digital Resources in University Libraries under the Integrated Media Background. *The Library Journal of Henan*, 2024, 44 (03): 81-84.