

Research Support Skills For Librarians In The Digital Environment

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Abstract

Librarians are very closely linked to research, and their job is to organize and manage the knowledge that comes from research. One of the most critical responsibilities of today's libraries is to support research activities. As key stakeholders in library development, librarians play a strategic role in assisting researchers in using library facilities and facilitating their knowledge enhancements. Their attitudes are crucial in determining the extent to which researchers use libraries. The current study explains Librarian's skills and competencies in providing research services to researchers in the digital environment in an academic institution. This paper also discusses the research competencies that librarians need to possess as the research library environment evolves.

Keywords: Research support skills, Digital environment, Research and librarians, Research support skills for librarians.

Introduction

Academic and research libraries attached to higher education institutions are playing prominent role in fulfilling all the information needs of their patrons. Although the libraries providing various services, research support skills are considered as major service which is possible with resources and skills of the library professionals. In order to provide effective and efficient services, there are many initiatives by the higher bodies of the academic system and also by the university libraries. To access all the universities theses, the Information and Library Network (INFLIBNET) centre, Ahmedabad has developed Shodhganga – institutional repository for Indian Theses and implemented Plagiarism detection system using URKUND software. Majority of the universities also have developed Institutional Repository for the articles published by the faculty members and research scholars and providing many specialised services such as document delivery services, content page services and e-Mail

alert services for conducting the research in systematic way. Different Information Communication Technology (ICT) tools such as content management softwares, reference management softwares, copyright advisory services etc have emerged as important research support system assists and provides utmost support in their research (**Das & Banerjee, 2021**). Academic libraries support researchers with a wide range of services, including the development of collections and the provision of reference, information, and instruction services (**Corrall et al., 2012**). All the higher educational institutions mission is to provide high quality information and carrying out the researcher's research in a meaningful way.

To provide effective services, the librarians in this digital environment need to have more in-depth research skills and analytical skills for employment opportunity and more flexible career options. Librarians and information providers can serve two functions in the research process. One is, they can promote librarianship knowledge, and on the other, they can aid in the development of human knowledge by guiding researchers through the research process (**Esmailzadeh, 2020**). In order to move to the new research support issues, they need formal skill training. The duties of librarians in research assistance must be defined to assess the skills and knowledge expected of them within a team, faculty, and institution. Librarians may be expected to have an in-depth understanding of the research process in specific discipline areas to engage as a full partner in the research activity. As a result, it is true that librarians in all sections of a library wear many different hats and provide a wide range of services to clients (**Sharma, 2019**).

Significance of Research Support in Libraries

Every academic institution provides space for research productivity with the help of libraries. (**Budd, 2006**) emphasized the importance of institutional support for libraries to increase the faculty research productivity. Research support can help academic institutions to improve their rankings and, with institutional backing, can help increase productivity through library services. In order to increase the research productivity, libraries must take the initiative to mobilize all the available knowledge (**Fazal & Chakravarty, 2019**). Each library provides access to electronic databases, e-books and journals, information about conferences and seminars, on-request information searching by an information specialist, purchasing printed or electronic materials for the researcher, being updated and continuously renewing various collections, and updating with information technology advancements (**Gabbay & Shoham, 2019**). The impact of research libraries can be measured based on how well the librarians promote and support the researchers through library research support services. In this digital environment, there are many databases and research related materials available freely need to be explored by the librarians in order to satisfy the research information needs. The library professionals need to either organise the knowledge or make it easier for researchers to get in touch with what they want from the library. How well users understand and use the library's services and resources is a big part of how well these functions work (**Khovati, 2008**).

Promoting Research Support Services

There are many ways through which the libraries ambience can be promoted to meet the research support is mentioned below (**RIN, 2011**).

- Attracts the researchers to choose the institution
- Helps to win fellowships, and research grants
- Promotes new technologies and new scholarly communication activities
- Promotes to increase the research productivity
- Repositories and open access resources for researchers increases the visibility
- Enhances the value of the library services
- Dedicated spaces provide a better work environment for researchers
- Provides space for easy access to high-quality content for good research

Librarians' Role in a Changing Research Environment

The world of education and learning is constantly changing. A similar shift is taking place in the research environment, where interdisciplinary and multidisciplinary research approaches are taking places as the literature for conducting research is huge and can be accessed simultaneously by the researchers at any time by breaking the geographical barriers. Libraries responds to these changes by moving from a traditional model where librarians were custodians of physical stock, controlling uniform study spaces, and offering expert knowledge behind an inquiry desk. More specific and user-focused offering is possible with the help of technological developments provides more information electronically. This, in turn, has freed up spaces to be developed in line with the needs of different segments of user community (**Brewerton, 2012**).

While technology has made searching for information and resources more manageable, convenient, and accessible during the last two decades, it has also made it more difficult due to many reasons such as huge volume of information posted on the websites without proper checking mechanism of the content and lack of digital literacy skills from the users. Thus, academic librarians and academic libraries now should play an essential role in scientific research. As a result of this profound transformation in the educational landscape, many librarians are still debating and defining their roles as change agents and thought leaders (**Dave Kostos, 2016**). Some of the significant roles of librarians in the research library includes (**Raju & Schoombee, 2013**).

- Assistance to Scopus, Web of Science, and other Academic Social Networking Sites to the research community.
- Technical infrastructure using the Open Journals Software
- Assistance with search engine optimization to increase the discoverability of publications;
- Help with copyright, Plagiarism detection and open access policies, and author guidelines;
- DOI minting service
- Allocation of ISSNs and ISBNs for publications
- Subscriptions management
- Advice on entry into abstracting and indexing services
- Support for Launching Journal

Some of the activities by librarians help the researchers needs are

- **Collection development**

The selection of a library collection could be an essential task for a librarian. Librarians must consult with the researchers to identify what type of collection is required.

- **Knowledge Organization**

Knowledge organization in a digital context is one of the essential and challenging job of the librarians in the research libraries

- **Preservation and Conservation**

The librarian should play a vital role in the preservation and conservation process for long term access.

- **User Services**

A librarian can also be an information officer must provide the relevant information requested by the researchers. Information packaging is a great approach to help customers. Some of their services include library loans, information literacy, and reference services, which some librarians perform in a research library (Riyanto et al., 2019).

Table 1 Major Research Support Services rendered by Librarians

Following are some of the major research support services to be provided by the librarians (Superio, 2019) are:

Selective Dissemination of Information (SDI)	Intellectual Property Support
Advanced Reference Services	Special Document Support
Research Support Link	Research Data Support
Research Support Training	Embedded Librarianship
Self-Training Guides	Bibliographic/Content Management
Scientific Writing Support	Research Metrics
Repository Management	Academic Social Network Profiles
Open Access Support	Researcher Identification
Information Organization & Evaluation	Institutional Cooperation

Skills required for librarians to support the research in the digital environment

A librarian should possess the following skills and competencies to provide better assistance for an institution's research environment (Kwanya, 2012).

- Excellent oral and written communication
- Ability to present ideas effectively
- Ability to write project proposals

- Possesses qualitative and quantitative research skills
- Understands the research literature, research trends, and fulfilling the information needs of the research community
- Proficient in designing, managing, and using online and offline research information databases.
- Conducts own research and publish in peer-refereed journals
- Helping the researchers to use different content management system and reference style
- Organize information resources to attract researchers and improve access and use
- Evaluate, select, acquire, process, disseminate, store and dispose of print and electronic research information resources
- Capable of designing and deploying relevant (user-centric) information services with research stakeholders' input
- Understanding and appreciating the indigenous knowledge of the research community
- Creating awareness about Academic Social Networking Sites for publishing documents and collaboration with the research community
- Educating the copyright and other intellectual property laws to the researchers

Librarians' competencies for research support

The Canadian Association of Research Librarians (CARL) presents a practical analysis of academic librarians' competencies for supporting research (CARL,2010), which are as follows:

- Foundational knowledge: of librarianship, research environment in the higher education sector, scholarly communications, and legal issues like copyright and licensing models
- Collection development: this includes digital curation, preservation and conservation of digitized materials and archives, and managing the resources
- Information literacy: including knowledge of learning models and strategies, reference services, engaging with and educating patrons
- Professional development and research: undertaking research, knowledge of the research process and the fundamentals of research methods
- Information technology skills: skills in IT for developing web-based e-resources such as portal, institutional repositories, library websites etc.
- Interpersonal skills: advocacy skills, enabling the required collaborations with diverse groups, writing and speaking skills; and
- Leadership: including strategizing to develop collaborations and partnerships with relevant communities

Conclusion

As librarians, we must foster an environment where research is an integral part of what we do. The goal of research libraries is to facilitate research by offering relevant information that enables researchers to conduct and develop research reports effectively. As a result,

strengthening the abilities of research librarians has a high potential for encouraging research skills among librarians. It is a constant effort to keep up with the ever-changing environment of information and communications technology solutions, protocols, and standards. Librarians should be familiar with empirical research methodologies and eventually develop research literacy since it can help optimize the utility of current knowledge. As a result of their research literacy, students will read, assess, conduct, and apply research to improve understanding, solve problems, and make decisions in practice. Academic libraries are known for the vital role they play in researcher communication. All stages of the research process are getting more help from information and training. Libraries must think about their long-term goals and their parent organizations when they help researchers at their universities. Creating and implementing an effective support model is as complex as assessing the scope of the necessary changes. The evolution of academic libraries as research support centres has resulted in a shift in librarians' duties and job descriptions, information specialists, and library practitioners. As a result, librarians must be aware of, knowledgeable about, and capable of conducting and publishing research articles.

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