

Measures to Provide More Facilities to Modern Students in the Field of Library and Information Science

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<https://doi.org/10.5281/zenodo.19397829>

Review: 04/02/2026

Acceptance: 04/02/2026

Publication: 31/03/2026

Abstract

Library and Information Science (LIS) is no longer limited to the collection and distribution of books. It has evolved into a modern, technology-driven system focused on the organization, preservation, retrieval, and dissemination of knowledge. The information explosion, digital revolution, internet, artificial intelligence, and user-centered services have radically transformed this field. Today's students do not want to be limited to textbooks; they demand quick, accurate, multi-dimensional, and digital information. In this context, it has become crucial for the field of Library and Information Science to offer more facilities to modern students, enabling them to become academically, research-wise, and professionally competent. This article highlights the various ways to meet the needs of modern students and address the challenges they face in the library and information science field.

Keywords: Digital Information, Academic Competence, Research Proficiency, Professional Development, Student Facility.

1. Modern Students: Changing Needs and Expectations:

Modern students are tech-savvy, and their main expectations include:

- Quick availability of information
- 24/7 access to digital resources
- Online and mobile-based services
- Multimedia resources (e-books, e-journals, videos, podcasts)
- User-friendly interface
- Guidance, information literacy, and career support



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2. Modernizing Library Infrastructure

Modern libraries must adapt to stay relevant and influential in a time of fast evolving technology and changing community needs. Libraries must go beyond their traditional functions as repositories of books and transform into hubs of information, creativity, and community involvement (American Library Association, 2018). To meet the diverse needs of users, libraries must modernize their infrastructure with a structured strategy that emphasizes technology integration, accessibility, and user-centered design.

Libraries now play a much larger role than they did a century ago; they are dynamic places that provide a variety of services, such as digital resources, community programs, and collaborative spaces, in addition to being book repositories (International Federation of Library Associations and Institutions, 2015). Libraries must adopt cutting-edge infrastructure strategies that improve user experience and foster learning if they are to serve their communities effectively. Another important factor to consider when developing library infrastructure is sustainability. Libraries, as institutions committed to community development and environmental responsibility, are increasingly adopting green building practices and sustainable resource management (Antonelli, 2008).

2.1 Development of Physical Facilities

Modern libraries are not just places for reading but have evolved into *Learning Commons*. For this, the following are necessary:

- Comfortable furniture
- Silent study areas
- Group discussion rooms
- Adequate lighting and ventilation
- Ramp, lift, and special facilities for differently-abled students

2.2 Digital Infrastructure

- High-speed internet (Wi-Fi)
- Computers, tablets, and e-readers
- Scanners, printers, and photocopy facilities
- Power backup and cyber security arrangements

3. Availability of Digital Resources

The availability and effective use of Digital Resources—such as e-books, e-journals, online databases, institutional repositories, and open-access platforms—can significantly enhance the speed, depth, and convenience of information access for students and researchers in university libraries. However, despite the growing availability of Digital Resources in many academic libraries, several studies show that their utilization by students remains constrained by infrastructural, financial, and skill related barriers.

Cyprian (2009) observed that many students lack the necessary information and ICT skills to search and retrieve relevant materials in the digital environment of academic libraries, which in turn affects creativity, innovation,

and the quality of research output. Even when DIRs are adequately acquired, they are often underutilized because users are not trained in advanced search techniques (e.g., Boolean operators, filters, subject specific databases), and because of poor or irregular Internet connectivity and power supply.

3.1 E-books and E-journals

Digital content such as E-book and E-journals has become indispensable for modern students, especially in research oriented academic programs. To ensure effective availability and use, university libraries should ideally:

Digital content is extremely important for modern students. Libraries should:

- Subscribe to national and international e-journals (e.g., through consortia such as UGC-Infonet, INFLIBNET, e-ShodhSindhu, or national licensing initiatives) to provide access to multidisciplinary, peer-reviewed journals at reduced cost.
- Provide access to e-book platforms
- Promote open-access resources

3.2 Databases and Repositories

- Shodhganga, DOAJ, Pub Med, JSTOR, etc.
- Institutional Digital Repositories
- Digital collection of research papers, theses, and dissertations

4. Information and Digital Literacy Programs

Information and Digital Literacy Programs are essential components of modern Library and Information Science (LIS) services. These programs equip students with the skills required to effectively locate, evaluate, and use information in both academic and real-life contexts. In the digital age, where information is abundant but not always reliable, such programs help students become critical thinkers and responsible information users.

4.1 Information Literacy

“Information Literacy is a set of abilities requiring individuals to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information.” by American Library Association, 1989 (ALA), information literacy includes the ability to:

- Identify the nature and extent of the information needed.
- Access the needed information effectively and efficiently.
- Evaluate information and its sources critically.
- Use information effectively to accomplish a specific purpose.
- Understand the economic, legal, and social issues surrounding the use of information.

It is essential to teach students:

- How to find accurate information
- How to distinguish between reliable and unreliable sources
- How to avoid plagiarism and use proper citations

4.2 Digital Literacy

As technology evolves, we encounter an increasing amount of information every day, and sorting through this vast information can often be overwhelming. Digital literacy refers to the ability to effectively use the internet and other digital tools to locate accurate information and apply it meaningfully in our daily lives.

Key aspects of digital literacy include:

- Database search techniques
- Use of reference management tools such as Zotero and Mendeley
- Use of e-learning platforms

Libraries can regularly organize workshops, seminars, and orientation programs.

5. Technology-based Services

Technology-based library services refer to the use of Information and Communication Technology (ICT) to enhance and support various functions of the library. These services aim to make library operations more efficient, accessible, and user-friendly. By integrating digital tools and systems, libraries can offer wider access to information and resources, both on-site and remotely. Such services improve the overall user experience; promote active engagement, and support research and learning activities more effectively. They are especially valuable in remote and distance education settings, where learners rely on digital access to library content. ICT-based library services play a key role in promoting digital literacy, ensuring that users can navigate and utilize information in a technology-driven environment. The use of Technology in library services has brought many helpful changes for both users and library professionals. These changes have made it easier to find and use information, saved time, and improved the overall library experience.

5.1 Automated Library System

- Integrated Library Management System (ILMS)
- RFID technology
- Self-service kiosks (Self Check-in / Check-out)

5.2 Mobile and Web-based Services

- Library mobile apps
- Online OPAC (Online Public Access Catalog)
- E-mail and SMS alerts
- Online renewals and reservations

6. User-Centered Services

S. R. Ranganathan's Five Laws of Library Science emphasize the importance of acquiring and accessing appropriate information sources, tools and techniques for organization and information service providing staff that can integrate all components and interface with users effectively and efficiently. In a user-centric library, the library staff works closely with the users to understand their needs and preferences, and to tailor the library's services and resources to meet those needs. This may involve conducting surveys, focus groups, and other forms of user research to gain insights into what users want and need from the library. (Kautonen & Nieminen, 2018)

6.1 Reference and Information Services

- Personalized research assistance
- Online chat reference service
- "Ask a Librarian" service

6.2 Personalized Services

- Content recommendations based on user interests
- Custom alerts and notifications
- Research support services

7. Coordination with E-Learning and MOOCs

Massive Online Open Courses (MOOCs) are freely available to the public. People have the power to develop their skills and explore topics from anywhere in the world. Best of all, MOOCs courses are backed by major universities and experts in the field, which makes them an ideal addition to your corporate eLearning strategy. Here are the top ways organizations can use MOOCs in corporate eLearning.

Libraries should:

- Provide information about platforms like SWAYAM, Coursera, and edX
- Offer guidance on online courses
- Archive video lectures and webinars

This will help students become lifelong learners.

8. Career and Competitive Exam Support

A career represents the long-term professional path that an individual chooses to pursue, shaped through continuous learning, skill development, and sustained effort over time. Career development is closely linked with personal growth and the ongoing acquisition of knowledge, which enables individuals to adapt to changing professional environments. In this context, access to accurate, relevant, and up-to-date information becomes essential for making informed career decisions. Libraries play a significant role in supporting individuals throughout this developmental journey. As centers of knowledge and information dissemination, libraries provide access to a wide range of resources that assist users in understanding career opportunities, employment trends, and required competencies across different fields. In an increasingly dynamic and competitive world, individuals require not only subject-specific knowledge but also awareness of emerging career paths and labor market demands. Libraries contribute to bridging this information gap by offering reliable and organized career-related resources (K. Varalakshmi & M. Moly, 2009). Furthermore, the role of libraries in career guidance extends beyond mere information provision. They act as effective platforms for storing, organizing, and disseminating career-related information in a structured manner. As emphasized by M. Moly (2007), libraries are among the most appropriate institutions for facilitating access to essential information required for career planning and decision-making. Empirical evidence also highlights the practical importance of libraries in supporting users' educational and career needs.

A study conducted by Nzivo (2012) revealed that a majority of adult users frequently visit public libraries for various purposes, including reading books, newspapers, and periodicals, accessing current information, preparing for competitive examinations, and developing academic notes. The study further observed that libraries actively organize career counseling programs aimed at motivating students and unemployed youth. Most participants expressed satisfaction with the availability of resources, services, and infrastructural facilities provided by libraries.

COMPETITIVE EXAMINATIONS

Competitive examinations are systematically designed assessments conducted to select candidates for admission to higher education institutions or for recruitment in government and private sector jobs. These examinations require a comprehensive and strategic preparation approach, as they test a wide range of abilities.

To succeed in competitive examinations candidates must develop:

- A broad and depth understanding of multiple subjects
- Critical thinking and analytical abilities
- Awareness of current information and proficiency in reading comprehension
- Continuous practice through mock tests and self-assessment

To meet these requirements, aspirants need a variety of resources: Standard reference books, magazines, newspapers, e-resources, mock tests. Libraries fulfill all these needs.

9. Role of Library Staff

Dr. S. R. Ranganathan stated, “Librarianship is a noble profession. A librarian derives his joy by seeing the draw of joy in the face of readers, helped by him to find the right book at the right time.” In this context, in the advent of technology, it has become crucial that the library staff are well trained and possess the requisite knowledge and skills. Today, the fast growth in technology and particularly INTERNET has changed the traditional method of research, storage, retrieval and dissemination of information.

As a result, the development of libraries in this IT environment has become a common source for information seekers, as it provides the remote access at world level at a very faster rate. However, the exponential growth of e-resources has become a challenging task to the library professionals in the way of providing qualitative service to its clientele. In this changing environment, an academic librarian plays an important role in tertiary institutions like universities, polytechnics, colleges of education and vocational schools by guiding students, teachers and faculty at the reference desk, instructing library research sessions, and developing library collections.

Furthermore, librarians at all level of academic library have different ranks and provides numerous services to Schools. Anyikwa, (2018) stated the roles of a Librarian as follows:

- a. A Librarian oversees the library to ensure orderliness, cleanliness, and protection of the books and resources in the library.
- b. A librarian develops and organizes library inventories
- c. A librarian is responsible to vice-chancellor for the overall administration and coordinates the university library, the branches in the faculty, department and Study centers as well as providing services for the entire institution.
- d. A Librarian Conducts a regular checks and updates on database information.
- e. A Librarians' primary assignment also involves serving distance education the information students and teachers need.
- f. A Librarian typically ensures adequate access to library, resources for those who enrolled in (i.e. those that have Library identity card).
- g. A librarian helps patrons' research reading materials, references and answers patrons' questions through phone or email.
- h. A librarian publishes and updates content on the library's website (e.g. Book, summaries, reviews, blogs etc).
- i. A librarian research and implement new information system techniques in vogue
- j. A librarian prepares library budgets
- k. A Librarian design, maintain and access distance education library web-pages and user interface.
- l. A Librarian creates online tutorials covering topics such as information literacy education and using of remotely accessible library database.
- m. A Librarian organizes activities and promotional events like children's storytelling, author readings, book sales etc)

9.1 Trained and Technologically Competent Staff

Modern facilities will be effective only if library staff:

- Are familiar with new technologies
- Adopt user-friendly behavior
- Participate in continuous training programs

9.2 Librarian: From Information Custodian to Knowledge Guide

Today's librarian is not only an information custodian but also:

- An information consultant
- A research collaborator
- A digital educator
- An academic partner

10. Inclusive and Sustainable Library Services

10.1 Inclusivity

Inclusivity means the library should be open and useful for all students, no matter their disability, language, or income level.

- ❖ Braille books and labels for shelves and equipment
- ❖ Audio-book selections with headphones and players
- ❖ Braille and audio versions of textbooks and exam guides
- ❖ Online multilingual e-book links on library notice board of website

10.2 Sustainability

- ❖ **Use of Renewable Energy Sources:** Libraries can install solar panels or other renewable energy systems to generate clean electricity, reducing dependence on fossil fuels and lowering the library's carbon footprint. This contributes to environmental sustainability by harnessing abundant natural energy.
- ❖ **Recycling Programs:** Implementing systematic recycling of paper, plastics, and electronic waste helps minimize landfill contribution and promotes responsible waste management. Libraries can set up recycling bins and educate users about proper disposal methods.
- ❖ **Eco-friendly Library Materials:** Using recycled paper for printing, biodegradable supplies, and non-toxic cleaning products reduces environmental harm caused by resource extraction and chemical pollutants. This demonstrates the library's commitment to green practices.
- ❖ **Digital Archiving:** Shifting from physical storage of documents to digital archiving decreases paper consumption and physical space requirements. This supports a paperless environment and promotes easier access and preservation of information.
- ❖ **Energy-efficient Lighting and Appliances:** Employing LED lighting, energy-saving computers, and smart thermostats reduces the overall energy usage of the library. Lower energy consumption translates to reduced operational costs and a smaller environmental impact.
- ❖ **Promoting Green Awareness:** Libraries can organize workshops, seminars, and exhibitions on sustainability topics to raise awareness among users. Educating the community encourages environmentally responsible behavior beyond the library walls.
- ❖ **Sustainable Procurement Policies:** Procurement strategies that prioritize purchasing environmentally sustainable products (such as recycled paper, energy-efficient electronics) ensure that the library's operations consistently support environmental goals.
- ❖ **Encouraging Sustainable Transportation:** Providing facilities like bicycle racks and promoting access via public transport decreases the carbon emissions associated with commuting to the library, contributing to urban sustainability.

- ❖ **Water Conservation Measures:** Installing water-efficient devices like low-flow faucets and rainwater harvesting systems helps libraries reduce water consumption and manage water resources responsibly.
- ❖ **Collaborations with Environmental Organizations:** Partnering with environmental groups can help libraries adopt best practices in sustainability, share resources, and engage in community green initiatives, amplifying their environmental impact.

11. Challenges and Solutions

Challenges:

1. **Financial Constraints:** Many libraries struggle with limited budgets that restrict investment in modern infrastructure such as high-speed internet, digital devices, subscriptions to e-resources, and state-of-the-art library management systems. This impairs their ability to provide comprehensive services to students.
2. **Technological Skill Gaps:** Library staff often lack advanced technical training necessary to manage and deploy emerging information technologies, digital resources, and automated systems like Integrated Library Management Systems (ILMS), RFID technology, and mobile apps. This skills gap limits the effectiveness of technology-based services.
3. **Low Awareness Among Users:** Students and other library users may not be aware of the digital and personalized services offered by libraries, such as online catalogs, e-books, MOOCs platforms, and digital literacy programs. This results in underutilization of library resources and facilities.
4. **Sustainability and Inclusivity Issues:** Libraries face challenges implementing sustainable infrastructure and inclusive services for differently-abled students and economically disadvantaged groups, requiring additional planning and resources.
5. **Rapid Information Explosion:** The vast volume of digital information and e-resources poses the challenge of effective organization, retrieval, and authenticity verification, also demanding continuous updating of library collections and services.

Solutions:

1. **Collaborations and Partnerships:** Active collaboration between government agencies, private sector organizations, and educational institutions can mobilize financial and technical resources. Public-private partnerships can facilitate infrastructure development and resource sharing.
2. **Open-Source Technologies:** Leveraging open-source software platforms for library management and e-resource integration can reduce costs significantly while maintaining high-quality services.

3. **Continuous Training Programs:** Investing in regular, ongoing professional development for library staff to stay current with the latest technologies, digital literacy tools, and user engagement strategies is vital. This ensures librarians transition from information custodians to knowledge guides and digital educators.
4. **User Literacy and Awareness Campaigns:** Organizing workshops, seminars, and orientation sessions to educate users about efficient search techniques, use of digital databases, plagiarism avoidance, and career support resources enhances effective utilization.
5. **Development of Inclusive Services:** Providing resources such as Braille and audio books, multilingual material, and ramp/lift facilities promotes accessibility. Free access schemes for economically disadvantaged students ensure equity.
6. **Green Library Practices:** Adopting eco-friendly policies such as paperless services, energy conservation measures, and sustainable resource management can allow libraries to operate responsibly while lowering costs.
7. **User-Centered Service Design:** Employing user feedback, conducting surveys, and implementing personalized services including research assistance, alerts, and online chat reference helps tailor library offerings to actual needs.

Conclusion

Providing more facilities to modern students in the field of Library and Information Science is an imperative today. It is not just about the availability of resources, but also about a user-centered approach, technological innovation, information literacy, and human sensitivity.

If libraries update themselves with the times, they will not only meet the academic needs of students but will also play a crucial role in shaping them into responsible, aware, and knowledge-rich citizens. In this way, modern libraries can become the foundation of a knowledge society.

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