



FUTURE OF ACADEMIC LIBRARIES: OPPORTUNITIES AND CHALLENGES

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Abstract

Rapid advances in technological innovations, affordable high bandwidth networks, explosive growth of web resources, sophisticated search engines, ever growing digital resources and changing information seeking behavior of users are greatly transforming the future of academic libraries. The paper outlines the challenges which are very dominant and posing threat for the existence of academic libraries and suitable strategies requires to be made by the libraries and librarians to meet the expectations and information need of their existing and potential clientele.

Keywords: *Academic Libraries, Challenges and Opportunities of Academic Libraries, Digital Technologies, Digital Resources, information literacy.*



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1. INTRODUCTION

Academic libraries are an important, integral and vital part of the education system which not only support education and learning but also assist in fulfilling the academic mission of the educational institutions. Academic libraries are recognized as treasure house of knowledge which provides academic support to students, scholars, researchers, faculties and others associated with the higher education system.

Digital Technologies have transformed the future of academic libraries creating new challenges and opportunities. Internet and web technologies have brought unprecedented changes in the nature and functioning of library and information resources and services environment. Digital information resources are growing enormously as they have more potential to be easily accessible simultaneously by many users. The users' priorities in information seeking pattern are changed with changing information landscape and technology. The users demand for information

in digital form has increased tremendously in recent years. Academic Libraries are facing variety of critical challenges affecting their existence in modern dynamic digital environment. Libraries are evolving to multimedia information gateways or portals providing access to global information resources. Academic Libraries have become complex learning resource centres with multiple roles and variety of complex challenges.

2. CHANGING LIBRARY LANDSCAPE

Today, the libraries are increasingly viewed as outdated and under rated with the use of modern web based services. The pressure on libraries to modernise the way of delivering their services is now intense and more demanding. The user expectations on libraries to deliver high quality, comprehensive, user-friendly new generation services have grown tremendously in recent years. The Libraries survival demands change, updation and modernisation. Libraries need to change quite dramatically to modernise almost every aspect

of their operations, information resources and services in order to meet the rising users expectations of the modern world. As the world advances, the library must also evolve and redesign their activities in order to deliver highly quality, need based, value added services according to the expectations of end users (Chad, 2005).

Libraries have also come to recognize that users expect to be able to access all the available information from one search box and to get exactly the result they need because of the excellent search technology. Libraries have ambition to deliver like search engine interface. The shift from “collections to connections” and the changes in the information environment from a situation of information scarcity to information overload has together with increased use of search engines created a new breed of self-sufficient users who do not see the library as the centre of their information environment. These developments have created new working conditions for all libraries. The library collection only constitutes a small part of the relevant supply of information and the library faces increased competition from new sources of information. The end result is an increased risk of “library bypass”. It is no longer necessary to visit the library in order to get the information you need (DEFF).

The information consumer frequently chooses the web over the library for information resources, despite the librarians concern about the trust worthiness of the web resources. The trend is increasing comfort with web-based information and content sources among all age groups. The information consumer uses search engines as gateways to both facts and answers. Ask – Services like Google Answer and Ask Jeeves have become self-service alternatives to traditional library reference services (OCLC, 2003).

Many surveys confirm that information consumers are satisfied with their online results. For example in 2002, Out sell Inc. surveyed over 3000 U.S. Internet information seekers and found that 78% of respondents said the open web provides ‘most of what they need’. The fact is that information and content on the open web is far easier and more convenient to find and access than in physical libraries. The information consumer types a term in search box,clicks a button, and sees results immediately.

3. CHANGING ROLE OF LIBRARIAN IN DIGITAL ENVIRONMENT

In the Modern World, the role of librarian is adapting to changing technologies, information environment and customers expectations. Library professionals are increasingly responsible not only to provide traditional library information services but also to deliver online information services according to the actual user needs. Libraries are functioning under great pressure to become more efficient to deliver more effective services to the users. LIS professionals need to be confident and competent that they can prepare for new challenges, deal with emerging

technologies, manage change effectively and claim new professional roles. A well-informed competent and creative LIS professional shall play multiple evolving roles in the 21st century.

As the information industry has changed, the expectations of information users have soared and librarians have come to fear for their positions and profession. As we race into the future, librarians should begin to think about the position of the library in the new

environment. LIS professionals are functioning under great pressure to keep pace with the constantly changing technological environment. Librarians must serve as technologists with multitasking

skills to assist learners in creating individualized information portfolios. Librarians must develop greater technological expertise, advanced research skills and team building competencies to play the new role of library technologist in digital environment.

Libraries must assert their evolving roles in more active ways in the context of increasingly competitive markets for information dissemination and retrieval. The librarian must be a multi-skilled Knowledge Navigator constantly interacting with users understanding the diverse needs of different user groups. Librarians have to play multiple evolving and expanding roles to face many new challenges in the dynamic digital environment. A librarian must be a professional expert, techno literate, web usability expert, knowledge manager, navigator, trainer, educator, marketer, service provider and many more.

4. SKILLS REQUIRED FOR CHANGING ROLE OF LIBRARIAN

In the dynamic digital information environment, the role of LIS Professionals has changed from mere custodians of documents to the effective provider of customized, high quality, innovative information products and services using latest technology. LIS Professionals have to learn and equip with wide range and variety of skills, knowledge and competencies in order to play multiple future challenging roles of Librarian responsive to changing needs of user community.

- Managerial & Leadership skills
- Library & Information Services Skills
- Information & Communication Technology Skills
- Internet & Web Technology Skills
- Communication Skills
- Teaching and Presentation Skills
- Commitment to excellent customer Service
- Resource generation skills
- Commitment to Life-Long Learning
- Inter personal relations skills
- Marketing and Promotion Skills
- Project Management skills
- Time Management skills
- Knowledge of Copyright, IPR and Cyber laws
- Knowledge Management skills
- Creative and Innovative skills
- Negotiation skills
- Change management skills
- Evaluation and Assessment skills

5. Strategies for academic libraries to cope with the future

Rapid Technological innovations have reinvented the roles, responsibilities, and resources of academic libraries. They continue to evolve and remain at the heart of academic Institutions.

Library's role in supporting research and education will require providing access to all kinds of learning resources in all formats to all the users. Academic libraries must adapt the following strategies to achieve necessary transformation and emerge as vital learning resource centres to keep pace with the changing needs of users in the digital environment.

5.1 Effective Utilization of Digital Technology

Libraries need to make effective use of technology in supporting research and education. Libraries must adopt new technologies, methods and approaches to keep pace with the changing demands of institutions, faculty, and students. The Library holds a unique position in an academic institution as it is considered as the logical extension of the class room. If the library is to remain a dynamic learning resource centre, it must support the learning and education process of academic community in several new ways. Libraries must offer innovative services that continually stimulate users for the advancement of knowledge. The integration of new information technology in to library has become the catalyst that transforms the library into more vital and critical intellectual learning centre in academic institutions. Academic libraries must extensively exploit new technologies, if they are to fulfill their potential in adding value to the advancement of the institutions academic mission and in moving with those institutions into the future (Freeman, 2009).

5.2 Create Comfortable Learning Environment

Academic Libraries need to develop an elegant, comfortable and conducive learning environment in the library to attract more number of users. They must provide clean, bright, warm and well-lit learning environment. Libraries renovate facilities to incorporate technology and provide more comfortable spaces to promote learning environment. Library staff needs to be professionally more proactive, user friendly, welcoming and helpful in order to encourage the users to visit the library. If users visit the library, they will be aware of the facilities, resources and services offered to them and thus increase the usage of the library.

5.3. Student involvement in the redesign process

Many libraries make use of the student feedback for developing the learning commons – from use of space and selection of furniture right down to selected student artwork being used as part of the internal design.

5.4. Managing digital information resources

Digital information resources can play a critical role in the learning of today's users. Libraries used to integrate more multimedia digital resources in to their searchable content. Academic Libraries need to develop digital collections and make them accessible on the network. Digital information resources allows less space, less stacks and more easily accessible by many users. Digital collections include material converted from print to digital, data bought and mounted locally and original digital publications.

Digital collections are of two types: Digitalized special collections (materials converted from print to digital) and born-digital collections. Born-digital collections include learning object repositories, institutional repositories, online journals, university press imprints and online collaborative environments. Modern scholarly resources tend to be high-quality born digital resources which allow more variety in information delivery including

print-on demand services. Modern information seekers want easy and seamless access to the largest number of sources. The libraries should provide as many options as possible to provide easy access to digital collections (Texadata, 2006).

Academic libraries must make searching the catalogue more like using search engines for easy and better access to their resources. Academic Libraries can add value to key pages of their websites by including interactive tutorials on how to find information and providing links to selected quality information resources.

5.5. Development of Institutional Repositories

Digital technologies have opened the door to a host of new possibilities for sharing knowledge and generated entirely new forms of content that must be made broadly available. This shift demands that universities take on a much more active role in ensuring dissemination of the knowledge produced by their institutions – both now and into the future (Lynch, 2009).

Academic Libraries must build institutional repositories (IR) by digitalizing their institutions' Journal articles, book chapters, theses, and research reports. These repositories are made accessible to the academic community. IRs provide good foundation for the future of academic libraries.

5.6. Offering Virtual Reference Service

Today, Libraries face many challenges in delivering reference service to users. Since large number of reference sources are accessible online on the web and users prefer user friendly search engines, libraries need to offer virtual reference services. Technological developments have enabled libraries to provide Virtual Reference Service(VRS). Virtual Reference Service is responsive to users need for convenient access to reference service. Users can submit their reference queries to the library at anytime from anywhere in the world. Libraries must integrate VRS with the rest of the reference services. Virtual reference is reference service initiated electronically, often in real-time, where patrons employ computers or other Internet technology to communicate with reference staff, without being physically present. Communication channels used frequently in virtual reference include chat, videoconferencing, voice over IP,co-browsing, e-mail, and instant messaging. Virtual reference queries are sometimes followed-up with telephone, fax,in-person and regular mail interactions, even though these modes of communication are not considered virtual.(Reference and User Services Association, 2004). Libraries must plan for virtual services to provide better complement to their physical services. They must explore and find ways to get material to the users rather than making them to come to library.

5.7. Developing Digital Library Services

Libraries must high-quality digital information services to the users. Libraries must redesign their roles and develop new ways of offering services to fulfill the overall mission of library. Libraries must focus more on the user's needs and their services and less on the traditional activities. Libraries do not have control over publicly available information. Today, library users have many alternatives for information access. The Google search engine is the first choice of many for information needs. Google scholar, a free search engine has become

popular for scholarly content. Major newspapers publish on line with up – to – the minute coverage. Commercial publishers have begun to offer information services direct to the consumer bypassing the library. Many open Access Resources containing scholarly content are available free on the web. The survival and success of academic libraries depends on the development of new services responsive to the needs of their users. In order to evolve relevant and new services, we must understand, embrace and adapt to modern times. Academic Libraries must thoroughly understand the needs and desires of their users and strive to provide innovative and improved user services to meet those needs.

5.8. Teaching Information Literacy Skills

British Library Google Generation report states that while we tend to think of our students as being “digital natives” i.e. brought up on the internet from a young age, this does not mean that they are necessarily information literate. The report highlights that many students and researchers don’t have the idea of different sources and types of information and they have difficulty in evaluation the quality of information and do have not a mental map of the information landscape. This has huge implication for librarians – and demonstrates the importance of information literacy programmes which are becoming ever more essential in today’s world of information overload.

The digital information universe has become so complex with the use of digital technology and digital resources. It is becoming increasingly complicated to process, discover, find and retrieve relevant authoritative reliable information timely. Information literacy in the form of training and learning support need to be delivered to the users either in person or in groups. Librarians should provide information literacy training and guide users to navigate the digital resources in the discovery and use of relevant information. Information literacy skills should be integrated into the academic curriculum of different courses. Librarians must adopt improved information literacy methods for teaching students by developing more visual oriented teaching aids.

Information literacy should be given more attention in academic libraries in digital environment. They must provide IL service and guidance in more useful ways in making effective use of their resources and services.

5.9. Extensive Staff Training on Digital Resources and Technology

One of the most important requirements is the training of library staff on different digital resources and technologies. Today, Librarians face a number of challenges that will make them to update their knowledge and learn continuously. Lifelong learning is not only a means of improving competencies, competitiveness and employability but also enables staff to keep pace with rapid technological developments. Continuing education and training helps librarians to keep abreast with latest developments their field of activity to enhance their job competencies. Training improves their perception, attitude, skills, knowledge and competencies. Librarians should be given extensive training on digital technology and resources for their effective utilization. They must be encouraged to do part time studies, attend professional trainings, e-learning courses, seminars, conferences and workshops.

5.10 Promote access to open Access Resources

Advances in new technologies especially the internet, web and e-publishing enabled opening up free access to various information resources. Free availability of scholarly information and knowledge plays a vital role for the research and development of all sectors of the society. Open access is providing free online access scholarly research literature and other publications without any restrictions. Open access provides great opportunities for researchers to improve the quality of research and scholarship. Open access can be provided through many sources such as open access books, Journals, repositories, tutorials and open course ware. Today, huge amount of open access resources are available across the globe. Libraries need to discover and identify the relevant global resources and provide gateway access to their local users.

5.11. Marketing Library resources and Services

Libraries offer many products and services to the users. Marketing is essential to promote the use of library collections, products and services by creating awareness among the users. Promotional activities will change perceptions, increase the library usage and improve the value and image of library. Public lectures, workshops and seminars need to be regularly organized to promote the use of library resources and services.

Most library users must go virtually or physically to the library. Library contents and services are rarely communicated to the user. Libraries need to focus more attention on the user centered services rather than library operations. Libraries can use different methods such as telephone, e-mail, internet, newsletters and leaflets to promote their resources and services. Library must give priority to provide excellent customer service to enhance its image in the institutions. Libraries have to alter their marketing strategies to encourage more and more creative uses of digital information resources.

5.12. Providing Single Window Access platform

Academic libraries subscribe to various digital and web resources like e-database, e-journals, e-books and many others. Besides, library has its own Web-OPAC, Institutional Repositories and other resources. Presence of such multilayered and multifaceted information resources in the library and their easy access has been a great challenge for the library. Now the technologies have offered a single window access platform to all library subscribed and non-subscribed resources. This facility is the need of the hour for the library and user community. More extensive research and efforts are required to be made in this direction in future to cope up with the challenges being imposed by various search giants.

5.13. Emergence of mobile technologies

The latest buzz word in the area of information access is the emergence of mobile technologies. Mobile/cell-phone is like a magic word and has huge potential in every sphere of life including information access, retrieval and communication. Its popularity and its various implications deep in the society have opened a new horizon for academic libraries too. Scope of suitable and effective implementation in this area must be explored and looked into for the benefit of user community.

5.14. MOOCs (Massive Open Online Courses)

Emergence and popularity of MOOCs courses and rise of online education, distance education has been posing other significant challenge before the academic librarians. There has been steep rise of enrolment in these courses. Therefore, libraries have to prepare themselves and evolve appropriate logistics to meet out the information and academic need of such students.

5.15. Optimum and effective utilization of Open Source Software (OSS)

Emergence of ICT, internet technologies, and others has led to development of large number of open-source software. These OSS are freely available, manageable and are playing vital role these days. Keeping in view of their compatibility, comprehensive applicability, affordability and sensing their prospective significance academic libraries have, long ago, started using OSS for various purposes like- building Institutional Repository, Digital Library, Web-page design, Content Management, etc. Academic libraries are required to be acquainted with a range of OSS available for variety of purposes, their installation, functionality and utilization for the benefit of their user community.

5.16. Role of social media

Another challenge for the academic libraries is the emergence of platform of social media. Such media has become very popular means of communication of information these days and libraries cannot afford to ignore its advantage being the impressive medium of communication. It has left a profound effect on our social life. Academic libraries, therefore, must explore ways and means to capitalize its huge benefit for the advancement of communication of library services.

6. Library in the New Information Age

This new age in which we now live in according to Anyakoha is a revolutionary period whose impact is far surpassing those of the Agricultural and Industrial Revolutions. Information has now become the most strategic resource that is transforming the world economy. ICT has brought about changes in different aspects of human life in the 21st century. The new opportunities provided by ICT in business, learning, communication etc. have thrown the world into a new society called the knowledge society or information society. Thus the world has become a global village. The internet where one can migrate from one chain of computers to the other is called the information super highway. Information Communication Technology, ICT has caused socio-cultural, political, educational, and economic change. Just like Salisu (2002)⁴ noted, ICT has engendered a new approach to work and service delivery, and is a technological development that has changed work and job expectations. The library is one of the main areas deeply affected by ICT which is the backbone of information age. This is due to the fact that the library being the main stay of information and knowledge has been made virtual such that library and information services extend beyond walls and physical buildings.

Changes in the Role of Library in New Information Age

From	To
Selection and acquisition of library information materials (books and journals) was from the publisher catalogues	Selection is based on users' demands and dealing with issues such as, journals licensing and publishers' big deal offers for open access journals.
Main collection included books and journals	Today there are institutional repositories, online databases, multi-media information resources
Librarians worked as collection specialists	Librarians work as faculty liaison
Management of information systems was limited to a four-walled physical library	In modern age, there are digital libraries, digital repositories and cloud information management system
Information model was scarcity and limited access of information	There is information explosion in both quantity and formats of information
Manual interlibrary loan system	Electronic interlibrary loan
High dependence on print resources	High dependence on e-resources and digital resources
Availability of services only in library working hours	Most services are available 24/7
Use of card catalogues to retrieve information	Use of Online Public Access Catalogue(OPAC) to retrieve Information
A traditional reference desk service	24/7 online and virtual reference Services
Library users had easily identified information needs	Library users have diverse information needs
Use of library budget mostly to buy books	To buy e-resources including hardware and software resources
Librarian mediated searching	Web-based searching
Print journals	e-journal and open access journals
Preservation of mainly books, serials and grey literature	Digital documents
Traditional library users, who had no other choice but to come to libraries	Diverse library users and assorted options to access information

In the new paradigm, the basic functions of libraries such as collection, organization, preservation and dissemination of information, user's demand and their information seeking behavior are also changing in this digital environment.

Conclusion

Emergence of ICT, internet, digital technologies, mobile technologies, social media platform, online education programmes, constant changing pattern of information generation its access and changing information seeking behaviour of the users are some of the major challenges for the academic libraries. Libraries have to rise on this occasion and have to evolve strategies to meet out these challenges which are posing serious threat for the very existence of academic libraries. User centric approach must be developed and all policies in respect of libraries must be oriented towards users. This would definitely ensure academic importance of libraries in higher education and learning which has been the vital component since time immemorial.

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