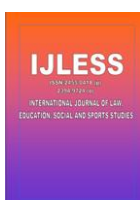# Role of Digital Libraries in Enhancing Quality Education in Modern Society

Pavithra S.M
Librarian, National college education,
Shimoga, Karnataka

ABSTRACT

Internet has become integral part of the library and it faces lifted libraries as a global platform for knowledge sharing hub. Powerful searching tools and technique have emerge in library sector such as internet search engine, information portals, multi format publisher and online digital library portal for researchers and students, Google itself provides enough opportunities to become library a global player for the access of scholarly information, this article focuses on few general aspects e-learning with a modern digital library, OPAC, Circulation etc. The aim of this paper is to increase the quality education by using the technology based libraries in the modern society, to fulfill this purpose some measures to be taken in the libraries so that it helps in improving the quality in academic colleges. Some of these measures are: User education, e learning, e-services, Library Automation etc. are discussed in this paper.

Keywords: Academic Libraries, Circulation, Digital Technologies, Services, Catalogue, Circulation, Automation

Introduction

Libraries are the soul of any research or academic institution. They form the most vital forum of education, especially in the field of technical education. Due to the rapid pace of development taking place in various fields of science and technology (S & T) it become imperative for the libraries to remain up-to-date with the latest advances in technology so that the dissemination of information becomes efficient, quick, feasible, economic, accessible and useful.

Education is important for every individual in a nation. It plays a vital role to change the stare of a country. No country could bring a revolution in it unless its everybody are educated enough to meet the challenges. Education makes a man realize about himself and his goals and how to achieve that goals.

In this context, Library plays a very important role in providing accurate information within a fraction using technologies. Nowadays, librarians use technologies to acquire, catalogue, preserve, diffuse, and provide reference services and so on. This doesn't mean that traditional libraries will stop existing. Traditional libraries as buildings will continue to exist for many years and support the digital libraries.

Thus, traditional libraries co-exist with digital libraries. This means that librarians play and will continue to play a significant role in libraries. It is important for librarians to keep a balance between their traditional role and the digital role.

Need for the Study: In the present ever changing information environment, libraries are encountering both opportunities and challenges. Information technology has introduced many changes in the way information is identified, procured, processed and disseminated to library clientele.

Academic Libraries are witnessing new paradigm shifts. These shifts include:

• Transition of information sources and systems from paper to electronic media.

• Complexity in information needs of highly demanding clientele.

It is an accepted fact that the Digital technology has influenced all the components of a library system: information sources, services, human resources and users.

Role of Academic Libraries in Digital Era: In the 21st century, academic libraries have a new role in sharing information. Libraries are not piles of books anymore; the general library environment has been changed from analogue to digital. Library automation systems have helped libraries to provide easy access to their collections through the use of computerized library catalogues (On-line Public Access Catalog – OPAC) which more recently led to digital libraries (IFLA,2013).

Dissemination of knowledge has always been one of academic libraries primary goals as long as they have served as learning institutions, cultural repositories and research centers but in this digital age of knowledge, they have to expand these roles and stop being passive repositories for printed material. To the contrary, academic libraries should upgrade their services and providing education of high quality by storing resources in various forms and maintaining easily accessible for online use among academic community.

Academic Libraries are an important part of the National Educational System as long as they serve as information centers fulfilling basic library users needs; efficiency, effectiveness, and utility. Evaluation plays a key role in the improvement of information services. Digital era has produced many changes in the society such as expansion of the served community; products and services; Therefore, the library manager has to impartially evaluate qualitative and quantitative value of the library resources and plan services for better functionality in order of making the invisible to be visible.

Academic libraries have gradually been completed many criteria for their development of better products and services which are the follows:

a. **Effectiveness:** to well operate the digital library system.
b. **Efficiency:** at what cost does it operate? (costs can be either financial, temporal or related to effort)
c. **Usability:** services & products utilization
d. **Accessibility:** characteristics of the digital system
1. (technology performance, speed, time, error rate)
e. **Quality:** qualitative material
f. **User's satisfaction:** users interact with the digital library system.

The methodology for digitization in academic libraries changes according to policies of each educational institution. Different institutions have different views of the material to be digitized depending upon the mission and vision of the parent institution.

Role of Librarians using techonology in Academic Libraries: Academic librarians are supposed to have various technological skills in order to provide services to students.

But in the new digital era when we talk about information literacy we mean teaching skills that include computer skills.

Information literacy in the digital environment means:

• "The ability to use digital technology, communication tools or networks to locate, evaluate, use and create information.

• The ability to understand and use information in multiple formats from a wide range of sources when it is presented via computers

Librarians by having the appropriate knowledge and technology skills concerning the digital material can guide library users on how to use the information in the right way. Librarians can teach users on how to use the OPAC catalog of the library, the e-journals, e-books and generally to direct them with the use of the digital material, to facilitate them with the searching, evaluation and retrieval of the electronic material even when they are at distance (i.e. from their houses, from a cafeteria). Moreover, librarians can teach them to acknowledge if the retrieved information is the appropriate for them and show them how they can make the right decisions concerning the information.

Services for academic libraries in the present context

Academic libraries' services have changed very fast in the last twenty years. Nowadays, electronic resources, networks and the World Wide Web represent a large parcel of the library services. Academic librarians must manage staff, information in several supports and technical activities to produce quality services.

It is very clear that librarians must use management tools to run academic libraries' services. Quality and performance assessment of libraries is very important to manage academic libraries and information services, because the evaluation process produces data that can help librarians to make decisions and to improve services.

Evaluate services, in order to satisfy user's needs, implies complex attitudes, guided by a set of solutions that vary according to the context and to the specificity of each community. Dervin and Nilan propose these solutions:

1. Centralization of needs definition and information usage
2. Implementation and redesign of information systems, making it more flexible and interactive
3. Technology adoption in order to improve information systems;
4. Guidelines description of information needs and usage;
5. Demand for the system or sources approached;
6. Service response to user needs;
7. Offered services satisfaction/dissatisfaction

The diversity in results relating to service popularity in a library can be attributed to the difference in time and location, but also to the experimental nature of many of the implementations. It appears, though, that RSS, IM, weblogs, etc are the most popular services.

Really Simple Syndication: (RSS)

"Really Simple Syndication". It is a way to easily distribute a list of headlines, update notices, and sometimes content to a wide number of people. It is used by computer programs that organize those headlines and notices for easy reading.

Instant Messaging: (IM)

"Instant messaging" – is a real-time communication service between desktop computers.

Some IM tools even have "you've got mail" capability, where you can send messages while the other person is offline, and they retrieve it later like email

Weblog

A weblog or blog, is a listing of text, images, or other objects that are arranged in a chronological order that first started appearing in 1998. Some examples of software and services that users use to create and start their own weblogs are Blogger, Manila, Movable Type, MySpace, LiveJournal, Radio Userland, TypePad, WordPress.

Permalink

A permalink (portmanteau of permanent link) is a URL that points to a specific blog or forum entry after it has passed from the front page to the archives.

Social Network

Alternatively referred to as a virtual community or profile site, a social network is a web site on the Internet that brings people together in a central location to talk, gossip, share ideas, share interests, make new friends, etc.

Impact of Internet on academic library services

Perhaps no other recent innovation has impacted the library profession to such a great extent as Internet. Not only is our world becoming an interconnected global community, but this early use of the Internet has changed the fundamental roles, paradigms, and organizational culture of libraries and librarians as well, which created profound impact on L&IS by offering new modes of information delivery and a vast information source. The innovative use of Internet technologies enable us to reach both local and distant users much more easily and effectively than hither to possible.

Technologies such as email and Web provides tremendous opportunities for library & Inf. Scientists to deliver the information to the desktops of our users. Web offers significant advantage by integrating different library & information services with a common user interface offered by Web browsers. Realizing the potentials, many libraries are rushing to getting the connectivity.

The following list will give an idea of which various functions of libraries may take advantage from Internet and Web technologies.

Acquisition

1. Correspondence with Book seller & Publisher.

2. Reminders, Price verification

3. Bibliographic details and downloading of bib. Records etc

4. Ordering, billing

5. Bookshops are on-line e.g. amazon.com

Classification

1. Network resources (in place of conventional sources)

    a. available on the net

    b. subscribed or free or trial basis

2. Dewey Online

3. Maths. Classification System

4. Engineering Electronics Lib. Classification

5. Search engines – such as yahoo use DDC.

Collection Development

1. Ownership vs Access

2. Subscribe in print or e-form

3. Subscribe in print as well as in e-form

4. Pay-per-use

5. Consortial approach

Cataloguing

1. Cataloguing of network resources

2. Online Catalogues

3. World Cat (OCLC)

4. Web OPAC – web sites

5. MARC adds 856 field

6. OCLC Scorpian project- MARC & AACR2

7. Metadata standards- Dublin core

Circulation

1. Remote login

2. Status check

3. OPAC access

4. Reminder to users

5. User requests

6. Direct borrowing

7. ILL

Resource Sharing

1. Union Catalogue

a. Access, adding, downloading

2. Access to databases over networks

a. Ohionet, ILLINET, WLN, OCLC, BID (UK)

b. Full text journals access etc

Services

1. ILL

      a. Document Delivery Service e.g. Ariel

      b. Reference / Inf. Services

2. CAS

      a. Recent additions,

      b. Contents pages

3. SDI

      a. From library collection (Lib. Catalogues)

      b. Databases

c. Internet Sources

4. OPAC

5. Database access

      a. Bibliographical

      b. Full text

      c. Many vendors & organizations are moving to Internet (web) access

User Education

1. Through Email

2. Through Web

3. Setting Intranet

The advent of IT and other communication technologies changed all means of information services and sources. The Internet has given the world numerous easy-to-use and inexpensive research tools. Internet is changing the way we view information sources.

  As information professionals, we can arrange the sources on net as we come across, in a structured manner. These can be;

E-journals   -   E-books- E-Standards   TDs

- Preprints - Library catalogue- Bibliographical Tools Share wares - Old books - News papers-Dictionaries - Magazines- Encyclopedias Databases - Directories - Films- Maps - Technical reports Audio/Video Proceedings - Patents - Websites of Companies

The New Learning Paradigm

To prepare knowledge workers and make higher education widely accessible, a new paradigm has been suggested with flexible, open, self paced, student centered learning based on collaborative two way processes. Therefore, there should be a gradual shift from standard education to customized service. Flexibility would permit the students to learn at a convenient time and place. And also allow them to define their own learning needs.

Hariharan has compared the two learning models in the following table

Table 1:

Traditional Learning environment	New Learning environment
Teacher centered instruction	Student centered learning
Single sense stimulation	Multi sensory stimulation
Single path progression	Multi path progression
Single media	Multimedia

Information delivery	Information exchange, Knowledge development
Isolated Work	Collaborative work
Passive Learning	Active inquiry based learning
Factual thinking	Critical thinking & decision making
Reactive response	Proactive planned action
Isolated, artificial context	Authentic,real-world context
Classical method of assessment: testing of bookish	Test of knowledge,skills,problem environment

Open learning, resource-based learning and e-learning approaches have been advocated which can address these requirements for academic library.

Open Learning

The term open learning is often used interchangeably with flexible learning. Both the terms are used to express an approach which provides students with the opportunity and options to take greater responsibility for their learning with provisions to meet individual needs. Open learning can be applied to technical education in the following learning situations.19

1. Conventional lecture situation

2. Small group unsupervised work

3. Laboratory classes

4. Independent study on/off site support

5. Group learning, and

6. Industry learning.

E-learning

An open learning environment enabled with Information and Communication Technologies (ICT) can be called elearning environment.20

Broadly, ICT application can be used in the open learning environment in the following:

1. Course delivery or access to learning material

2. Tools for laboratory training

3. Evaluation tools: assignments, tests and quizzes

4. Tools and technology for development of learning material

5. Interaction, collaboration and development of learner communities for counseling and   discussions

6. Library and information services: digital libraries

7. Assistive technologies for physically challenged, and.

8. Educational administration

Challenges for Academic libraries in Digital Era

The following are the Challenges for Academic libraries in Digital Era

1. **Making services engaging to researchers and students**: Google is not the answer to everything. As a result, the librarian fully absorbs the needs and wants of students and researchers to make a substantial and engaging difference in their work moving forward.

2. **Handling research data management tools**:Libraries should be the place on campus for data curation and research management. Librarians need the support of their faculty and administrators to make this happen, but librarians also have to keep themselves well-versed in the advancements of data management so research doesn't become stale.

3. Demonstrating the value of Librarian: Academic libraries are always on a budget This means that month after month, year after year, libraries have to come up with compelling examples of how valuable their work is - often with a looming bottom line. However, according to the American Library Association, research has proven a connection between student grade point averages and library material usage. Staff needs to communicate this connection and demonstrate why libraries require more attention and public engagement.

4. **Preserving material on a digital scale**: Not only are there excellent products available that can help libraries achieve this - even with the biggest of collections - it's becoming the norm.

5. **A growing and diverse spectrum of customers**: The 20th century underwent a massive shift in technological innovation that impacted people of all ages. On any given day, a librarian might have to help customers from six different generations, from baby boomers to millennial, according to 21st Century Library.

6. **Nailing down library policies**: With the increased usage of online tools, there are many questions that might need to address to the administration. For instance, if the university should be purchasing e-books alongside traditional print sources. Or, as many modern academic research centers are discovering, there may not be a need for purchasing textbooks at all. These are just some examples of library policies that staff and the administration need to pinpoint moving forward.

7.**Role development**: Open Access has required librarians to become knowledgeable in a growing number of subjects on an astounding scale. While no institution is going to process information at the pace of a computer, it might feel that way sometimes. Adding budgeting and resource constraints can contribute to this problem as well.

8.**Digital licensing**: Although every academic research facility is different, College and which

means that digital licensing agreements should become more sustainable and easier to understand.

9.**Subject-matter expertise**: With so much information pouring into libraries at a fast pace,

academic institutions need to take an active role the management of libraries. There have already been great strides taken on a national scale, such as National digital Library of India.

10. **Becoming familiar with a wide range of digital content**: By clearly seeing what kinds of articles, published works and e-books are being used the most by students and researchers, librarians can fully digest what types of content they need to become familiar with in a global, digital world while still providing high quality sources. With academic libraries, the challenges of role development, digital licensing and research tools are shaping the way that librarians provide quality content to students and researchers.

Opportunities for libraries in digital era

1. **Expanded access through information sharing:** Digital Libraries provide robust interaction between information and users – democratizing the global dissemination of information. The United Nations

Educational, Scientific and Cultural Organization's (UNESCO) "Information for All Programme" (IFAP) embodies the modern importance of public information by providing access and is equipped with on-line connections to a worldwide network of libraries. The new opportunities of the digital age in order to create equal societies through better access to information. This is a powerful goal. Information sharing has the power to bolster educational equality across the world.

2. **Libraries are becoming technology hubs:** As the Internet becomes the main vehicle for people to get information, the tradition of a building stuffed with books is less relevant to our modern lives. As a result, libraries are transforming themselves into technological spaces. When looking at technology use in libraries, the Pew Research Internet Project found that patrons are increasingly thinking of libraries as community spaces that allow access to technology and as a source of digital literacy for various demographics.

3. **Libraries are being shaped by budget cuts:** Budgetary constraints continue to plague libraries and limit their ability to evolve and adapt, even as libraries see increased usage from the public.

4. **Libraries have a strong role in local communities:** The libraries offer resources that give"everyone a chance to succeed," that libraries are important in the promotion of literacy, and that academic libraries improve quality of life in institutions. Libraries offer spaces to the number of e-book users is growing, but not to the extent to have replaced print books. While the percentage of users who are reading e-books is growing, simultaneously, print book reading is also spend time and access information.

5. **Printed books still dominate reading, despite the growth of e-books:** The number of e-book uses in growing, but not to the extent that electronic books have replaced printed versions. While the percentage of users who are reading e-books

is growing, simultaneously, print book reading is also growing. The popularity of e-books is rising, but print remains the foundation of many people's reading habits. This trend is expected to change as reader ownership expands. Technological expansion and the changing way individuals gain access to information have deeply impacted the structure of libraries – physically as well as conceptually. Despite the modernization of libraries and their adaption to the digital age, the spaces still hold a critical role within community. Academic Libraries are doing well in changing with the needs of students, faculty and research community, continuing to be beacons of information sharing, learning, and entertainment even amidst tight fiscal times.

Role of Digital Libraries in enchancing quality education:

It can be achieved in three steps:

1. Role of teachers: Teachers can play a key role in enhancing quality education in libraries by:

- **Motivating students:** Teachers can encourage students to read and prepare them for future challenges
- **Disussing library experience:** Teachers can ask students about their library experiences and discuss various topics.
- **Teaching Library skills:** Teachers can teach students how to use the library and its resources.
- **Visiting the Library:** Teachers can regularly visit the library to read new arrivals and subject books.
- **Teaching Information evaluation:** Teachers can teach students how to evaluate information sources.
- **Supporting curriculum:** Teachers can support faculty in updating the curriculum and pedagogy.

- **Providing reading material:** Teachers can help students find reading material relevant to their curriculum.

2. Role of Parents: Parents can play vital role in enchancing the quality of education in libraries by:

- **Introducing reading:** Parents can help children to learn that reading is a pleasure and a way to bond.
- **Visiting libraries:** Parents can encourage reading by visiting libraries with their children.
- **Reading together:** Parents can read together with their children
- **Being role models:** parents can teach their children about the importance of education and curious learning
- **Creating a happy learning environment**:parents can provide a happy and positive growing environment for their children
- **Helping with homework:** Parents can help their children with homework by setting aside a special place to study and establishing a regular time for homework
- **Asking for help:** Parents can ask for help if they find it difficult to help their child with homework or school projects.
- **Communicating the importance of education;** parents can communicate to their children that they think education is important and that homework needs be dine each day
- **Asking for special services:** Parents can ask for special services if they think their child may need it.

3.Role of Media in Education: There are many types of media plays a vital role in enchancing the quality education: Those are

- **Role of Print Media:** Role of Print media in the process of education is of special importance.Print media like Newspapers, Journals and Magazines are the sources available in huge in Academic Libraries and these source are very basic and provide current primary information so that users can access the recent information easily.Onther form print source that is Books plays a major role in the students for their academic and also in the library to fullfil the needs of academic curriculum both for students and also the faculties.
- **Role of electronic media:** Radio, t v, films, mobile apps, online education plays a very important role in the education both as formal and informal education. Nowadays every person depends on this electronic media in one or the other ways for their daily routine works.

Conclusion

As the nature of information access changes, one of the biggest challenges faced by libraries will be driven by a shift from content ownership which works at the level of an individual institution, to providing services which can only be created and delivered on a larger scale. "The individual library is being eroded", noted one participant, "librarians will have to work together in order to remain relevant".

As the amount of freely accessible information grows, collaboration and sharing of both discovery and support services will become increasingly relevant. Participants noted that this level of engagement is already happening. Librarians are already speaking with other institutions to work out how to share subject libraries or repositories.

Licensing content across consortia is a longstanding example of how the librarian's role will adapt to work at scale. Sharing resources will also enable librarians to focus energies on providing advice to users. "A research library is more like a research assistant," one librarian commented. Moving forwards, there will be a greater emphasis placed on providing overlay services both to institutions and between institutions.

Where librarians see future opportunities for continuing to add value, through for example managing metadata on institutional repositories for content published from their institution, there is an implicit shift in role – this is effectively a publishing function, making content available to be used by a community well beyond the library's own institution. This change was one which the participants felt that librarians have already embraced and see as an increasingly important role in the future, but it is also one which calls for different practices and perspectives.

Bibliography:

[1]. *EzineArticles*. (n.d.). Retrieved from http://EzineArticles.com/661602

[2]. Vasishta, S. (2007). *Status of libraries in higher technical education institutions: with special reference to deemed universities of North India*. Annals of Library and Information Studies, 54, 95-102.

[3]. Allen, G.G. (1982). *The role of the library in higher education and the implications for the external mode of study: an Australian perspective*. Higher Education, 11, 531-542. Retrieved from http://download.springer.com/static/pdf/831/art%253A10.1007%252FBF00194418.pdf

[4]. Melo, L. B., & Sampio, M. I. C. (2006). *Quality Measures for Academic Libraries and Information Services: Two Implementation Initiatives – Mixed-model CAF-BSC-AHP and PAQ-SIBi-USP*. Retrieved from http://www.iatul.org/doclibrary/public/Conf_Proceedings/2006/MeloSampaiopaper.pdf

[5]. Dervin, B., & Nilan, M. (1986). *Information needs and uses*. Annual Review of Information Science and Technology (ARIST), 21, 3-33. Retrieved from http://www.iatul.org/doclibrary/public/Conf_Proceedings/2006/MeloSampaiopaper

[6]. *RSS Software Garden*. (n.d.). Retrieved from http://rss.softwaregarden.com/aboutrss.html

[7]. *About Instant Messaging*. (n.d.). Retrieved from http://netforbeginners.about.com/od/instantmessaging/a/WhatIs-Instant-Messaging.htm

[8]. *Computer Hope: Weblog*. (n.d.). Retrieved from http://www.computerhope.com/jargon/w/weblog.htm

[9]. *Wikipedia: Permalink*. (n.d.). Retrieved from http://en.wikipedia.org/wiki/Permalink

[10]. *IINFLIBNET Regional Training Programme on Library Automation (IRTPLA) 2004*. INFLIBNET Centre, University Grants Commission, Ahmedabad, India. Retrieved from http://ir.inflibnet.ac.in/dxml/bitstream/handle/1944/279/Inf_5.pdf?sequence=1

[11]. Hariharan, R. (2002). *Information technology for teaching and learning*. Indian Journal of Technical Education, 24(4), 30.

[12]. Shukla, J. K. (1998). *Open learning in technical education: Some conceptual issues*. In M. Mukhopadhyay et al. (Eds.), Education India: The Next Millennium-Report of the World Conference (pp. 510-517). Udang: Institute of Education, Rural Studies and Development.

[13]. Laurillard, D. (1997). *Recommendation of National Committee of Inquiry in Higher Education (UK) in IT and Dearing: The implications for HE*. In H. Beetham (Ed.), IT and Dearing: The Implications for Higher Education: Colloquium Proceedings (pp. 3-12). London: CTI Support Service, University of Oxford.

[14]. Shukla, J. K. (1998). *Open learning in technical education: Some conceptual issues*. In M. Mukhopadhyay et al. (Eds.), Education India: The Next Millennium-Report of the World Conference (pp. 510-517). Udang: Institute of Education, Rural Studies and Development.

[15]. Chauhan, B. P. (n.d.). *Technology Enabled Technical Education in the New Learning Paradigm: Issues and Perspectives in Delivery and Access*. Retrieved from http://dspace.thapar.edu:8080/dspace/bitstream/123456789/49/1/Technology+Enabled+Technical+Education+shorter.doc

[16]. *The Guardian: Open Access and University Library Impact*. (2012, October 25). Retrieved from http://www.guardian.co.uk/higher-educationnetwork/blog/2012/oct/25/open-access-university-libraryimpact

[17]. Adamou, S., & Ntoka, L. (2017). *The impact of digital technologies on academic libraries: A study in Greece*.

[18]. Brindley, L. J. (2009). *Challenges for great libraries in the age of the digital native*. Information Services and Use, 29(1), 3-12.

[19]. Hughes, L. (2004). *Digitizing collections: Strategic issues for the information manager*. London: Facet Publishing.

[20]. Pandey, P., & Misra, R. (2014). *Digitization of Library Materials in Academic Libraries: Issues and Challenges*. Journal of Industrial and Intelligent Information, 2(2).