Digital Library Capacity Building Strategy, Benefits, Services, Drawbacks and their Core Competencies for Librarians in the Digital Era

Mr.Picheswarao Duddu[1], Dr.M.Dhanamjaya[2]

[1]*(PhD- Research Scholar, Reva University, Bangalore), APSWRS/Jr College, Nagulapalem, Parchur, Prakasam Dist, Andra Pradesh.*

[2]*Registrar, Reva University, Bangalore*

Abstract- **Digital libraries are organizations that provide the resources, including the specialized staff, to select, structure, offer intellectual access to, interpret, distribute, preserve the integrity of, and ensure the persistence over time of collections of digital works so that they are readily and economically available for use by a defined community or set of communities. This paper is mainly highlights for Meaning of Digitalization, Features, Definitions, Review of Literature, Objectives, Functional Components, Digital Library Services, Benefits, Drawbacks, Digitization Challenges, Capacity Building Strategy, Core Competencies for Librarians, Customer Expectations and so on.**

Index Terms- **Digitalization, Objectives, Functional Components, Digital Library Services, Benefits, Drawbacks, Capacity Building Strategy, Core Competencies for Librarians, Customer Expectations.**

1. INTRODUCTION

Librarianship is "a professionconcernedwithacquiringandorganizingcolle ctionsofbooksandrelatedmaterialsinlibrariesandservic ingreadersandotherswiththeseresources". It is a Noble Profession. Service of mankind is its Motto. It is not a Business and those who entertain mercenary outlook and habits may not be fit for this emulated profession. Digital Libraries are being created today for diverse communities and in different fields e.g. education, science, culture, development, health, governance and so on. With the availability of several free digital Library software packages at the recent time, the creation and sharing of information through the digital library collections have become an attractive and feasible proposition for library and information professionals around the world.The Implementation of a digital library project involves the following activities. They are such as;

➢ Establish the project team
➢ Set up the Information Technology (IT) infrastructure
➢ Procure and install digital library software
➢ Finalize policies and specifications
➢ Complete arrangement of workflow for digitization
➢ Set up the digital library collection site in case of Internet distribution
➢ Obtain copyright permissions and
➢ Release the digital library collection for use

1.1. Meaning of Digitalization:

IGI Global Dictionary: Digitalization is the integration of digital technologies into everyday life by the digitization of everything that can be digitized. The literal meaning of digitalization gives an apparent idea of development and technology dependent world.

1.2. Features of Digital Libraries:

➢ Added value
➢ Easily accessible
➢ Information retrieval
➢ Multiple access
➢ No physical boundary
➢ Preservation and conservation
➢ Round the clock availability
➢ Space

1.3. Definitions of Digital Library:

➢ Cleveland: "Digital libraries are libraries with same purposes, functions, and goals as traditional libraries- collection development and management, subject analysis, index creation, provision of access, reference work, and preservation. A narrow focus on digital formats along hides the extensive behind the scenes work that libraries do to develop and organize collections and to help users find information."

➢ Russian scholars Sokolova &Liyabev: Indicate that a "Digital library is a distributed system that has the capability to store and effectively utilize various electronic documents, which may be conveniently accessed by end users via network transmission.

2. REVIEW OF LITERATURE

Bhattacharyya, S., Patnaik, K.R. (2018) This book is an important resource for entry level and seasoned librarians, researchers, and instructional design specialists seeking current research on up to date library instruction in the modern technology age. Lampert, C. (2018) the focus of this study is neither on the rationale for large-scale digitization nor on the detailed specifications for large-scale digitization workflows. Rather, it will outline the types of resources (internal and external), decision points and specific practical strategies for digital library managers seeking to start ramping up the production. Eiriemiokhale, K.A. (2017) the chapter recommends ways of managing orphan works and the roles of digital libraries in open access to knowledge. The author concludes that current developments point to the dominant role of information and communication technology in libraries for improved access to information.

3. OBJECTIVES &PURPOSE OF DIGITAL LIBRARY

➢ Encourage co-operative efforts in research resource, computing, and communication networks.
➢ Expedite the systematic development of procedures to collect, store, and organize, information in digital form.
➢ Promote efficient delivery of information economically to all users.

➢ Strengthen communication and collaboration between and among educational institutions.
➢ Take leadership role in the generation and dissemination of knowledge

3.1. What's HOT Today?
➢ Being connected 24/7
➢ Blogs
➢ Cell phones & texting
➢ Citizen journalism
➢ Faceted browsing
➢ Fast delivery and vodcasting
➢ Folksonomies
➢ Gaming & virtual realities
➢ Instant gratification
➢ Mashups
➢ Metasearching
➢ Online photo sharing
➢ Open source ILS desktop applications
➢ Open World Cat
➢ OpenID or one-time
➢ Plugins, add-ons, & extensions authentication
➢ Podcasting, screen casting
➢ RSS feeds & aggregators
➢ Social bookmarking
➢ Social networking
➢ Tagging
➢ User comments and ratings
➢ Web applications replacing
➢ Widgets and gadgets
➢ Wikis

3.2. Why Digitization?
There are three main needs for digitization; two or all the three of them may apply to your digital library project.
➢ To preserve the Documents
➢ To make the documents more accessible
➢ To reuse the documents

3.3. Functional Components of Digital Library:
3.3.1. Indexing and storage: This component carries out the indexing and storage of documents and metadata for efficient search and retrieval.

3.3.2. Organization: The key process involved in this component is the assignment of the metadata (bibliographic information) to each document being added to the collection.

3.3.3. Search and retrieval: This is the digital library interface used by the end users to browse, search, retrieve and view the contents of the digital library. It is typically presented to the users as Hyper-Text Mark-up Language (HTML) page.

3.3.4. Selection and acquisition: The typical processes covered in this component include the selection of documents to be added, the subscription of database and the digitization or conversion of documents to an appropriate digital form.

3.4. Functions of Digital Library:
➢ Access to large amounts of information to users wherever they are and whenever they need it
➢ Access to primary information sources.
➢ Advanced search and retrieval.
➢ Client-server architecture
➢ Hypertext links for navigation
➢ Integration with other digital libraries
➢ Network accessibility on Intranet and Internet
➢ Support multimedia content along with text
➢ User-friendly interface

4. DIGITAL LIBRARY SERVICES

➢ Ask-an-Expert
➢ Digital reference service
➢ Electronic document delivery services
➢ E-mail alerts
➢ Real-time reference service
➢ RSS feeds or Atom feeds
➢ Web-based user education

4.1. Benefits of Digital Libraries:
➢ Added value
➢ Brings together people with formal, informal and professional learning missions
➢ Enhanced information retrieval.
➢ Improved access: Digital libraries are typically accessed through the Internet and Compact Disc-Read Only Memory (CD-ROM). They can be accessed virtually from anywhere and at any time. They are not tied to the physical location and operating hours of traditional library.
➢ Improved information sharing: Through the appropriate metadata and information exchange protocols, the digital libraries can easily share

information with other similar digital libraries and provide enhanced access to users.
➢ Improved preservation: Since the electronic documents are not prone to physical wear and tear, their exact copies can easily be made, the digital libraries facilitate preservation of special and rare documents and artifacts by providing access to digital versions of these entities.
➢ Multiple access
➢ Nearly unlimited storage space at a much lower cost
➢ No physical boundary
➢ Preservation for some print material
➢ Provides a friendly interface
➢ Provides faster access to information resources
➢ Re-allocate funds from some staff, collection maintenance, and additional books.
➢ Round the clock availability
➢ Supports advanced search and retrieval
➢ Supports the traditional library mission of collection, development, organization, access to presentation
➢ Universal accessibility
➢ Wider access: A digital library can meet simultaneous access requests for a document by easily creating multiple instances or copies of the requested document. It can also meet the requirements of a larger population of users easily.

4.2. Drawbacks of Digital Libraries:
Digital libraries, or at least their digital collections, unfortunately also have brought their own problems and challenges in areas such as:
➢ Copyright
➢ Costs are spread and many become hidden
➢ Difficulty in knowing and locating everything that is available, and differentiating valuable from useless information.
➢ Digital preservation
➢ Equity of access
➢ Exorbitant cost of building/maintaining the terabytes of storage, servers, and redundancies necessary for a functional digital collection
➢ Inefficient or non-existent taxonomy practices (especially with historical material)
➢ Information organization
➢ Interface design
➢ Interoperability between systems and software

- Job loss for traditional publishers and librarians
- Lack of preservation of "best in class"
- Lack of preservation of a fixed copy (for the record and for duplicating scientific research)
- Lack of screening or validation
- Quality of Metadata
- Training and development
- User authentication for access to collections

There are many large scale digitization projects that perpetuate these problems.

4.2.1. Digitization Challenges (Merrilee Proffitt):
- Access: are we putting things where scholars can find them?
- Audio/Visual materials
- Born Digital, web harvesting
- Issues with digital asset management systems (DAMS) or institutional repositories (IR)
- Metadata: Item-level description vs collection descriptions
- Process management / workflow / shift from projects to programs
- Rights issues (copyright, privacy)
- Selection – prioritizing users over curators and funders
- Storage and preservation

5. EXPLOSIVE GROWTH & USAGE OF WEB RESOURCES

- Digital Information Resources
- E-learning (online learning)
- ICT Trends
- Information Portals and mortals
- Metadata Standards
- Online information services
- Search Technology
- Subject Gateways
- Web Technology

5.1. Creation of Digital Resources:
- Creation of local digital content available within the university
- Database of digital material that is open to all users over the campus-wide LAN.
- Electronic journals, and gradual elimination of print subscriptions
- Focus selectively on acquiring digital resources
- High bandwidth Internet connectivity

- Licensed databases

5.2. Need for Capacity Building Strategy:
It is necessary to reshape the capacity building strategy for special areas. These are primary areas;
- Communication skills
- Core competencies
- Critical thinking
- Disaster planning
- Library 2.0 skills
- Library policies, procedures and approaches
- Problem solving techniques
- Professional ethics
- Project management
- Technical writing

5.3. Capacity Building for Libraries Customer Care:
The following major factors which can be taken into account for e-shaping planning strategy for customer care for small, medium and large libraries. They are;
- Awareness campaign
- Behavior
- Certainty
- Customer participation and care
- Delivery mechanism
- Documentation
- Dynamic feedback and management review system
- Measurement of customer satisfaction
- Reliability
- Speed
- User interface

6. CORE COMPETENCIES FOR UNIVERSITY LIBRARIANS

- Change management skills
- Charismatic leadership and embrace innovation
- Customer focus
- Decision making
- Develop and sustain the library presence
- Development library fund and Strategic investment
- Development scholarly content and hassle free dissemination
- Digital infrastructure and support
- Efficient resource planning
- Excellence
- Foster organizational culture and staff development

➢ Initiative and creativity
➢ Integrative and global thinking skills
➢ Library research, public participation and engagement
➢ Managing and marketing library service
➢ Managing and preserving resource
➢ Open access, leadership and open choice
➢ Quality
➢ Reliability
➢ Research commons
➢ Safety watch
➢ Self-assessment
➢ Strategic alliance and scholarly collaboration
➢ Strategic thinking
➢ Students' engagement and participation
➢ Transformational library leadership
➢ Work culture
➢ Work ethics and values
➢ Working relationship

6.1. Our Mission Should Be:
Based on above discussion and facts, Librarians need to re-orient and re-design their approaches and strategies to achieve the following objectives.
➢ Accessible
➢ Capture the Institutional best practices
➢ Comfortable
➢ Compact
➢ Constant in environment
➢ Create an institution's output
➢ Economic
➢ Encourage open access
➢ Extendible
➢ Flexible
➢ Help libraries to meet the challenges of the digital world
➢ Increase an impact of research and development
➢ Manage learning materials
➢ Organize digitized collections and services
➢ Organized
➢ Provide value added services to stakeholders
➢ Raise visibility/prestige of institution
➢ Secure
➢ Utilization of information literacy
➢ Varied

6.2. Customer Expectations in Libraries at Present:
The Expectations of Users vary from one environment to another environment, Institutional programs, priorities, vision, activities and specialization. Based on the experience and exposure in the area of Libraries, it has been observed that the expectations of Users in Libraries generally are;
➢ Clear directions and way guides
➢ Continual improvement
➢ Continuous interaction
➢ Disaster Management
➢ Display and demonstration of information about staff
➢ Effective & Efficient workflow
➢ Electronic resources access and delivery
➢ Information literacy
➢ Proper communication facilities
➢ Proper documentation of facilities and services provided
➢ Quality initiatives and accuracy
➢ Speedier service delivery mechanism
➢ Web based initiatives and resources
➢ Well organized collections
➢ Well placed users complaints system
➢ Well-designed forms for availing services

7. CONCLUSION

Digital Libraries are essential for the educational process at all levels and are institutions that strengthen democracy by providing different kinds of information so that citizens can make an informed decision. In a country like India, libraries can be viewed as places of opportunity as they can provide the world of information to the rich and the poor alike. Such a vital and significant institution of the society needs information professionals who are skilled in information handling activities. Further, this digital age demands information professionals who are comfortable and creative with technology. The skills discussed above may not be exhaustive; but those who would be equipped with such skills would definitely become excellent information professionals. Digitization has opened up new audiences and services for libraries, and it needs to be integrated into the plans and policies of any institution to maximize its effectiveness. Digitization is a complex process with many crucial dependencies between different stages over time. Utilizing a holistic life-cycle approach for digitization initiatives will help develop sustainable and successful project. The Librarian of a Library or the authority concerned

should remember few words of *M K Gandhi* "A customer is most important visitor in our premises; he is not dependent on us, we are dependent on him".

BIBLIOGRAPHY

[1] Dhayani, P (1990) "Library science through distance education", Herald of Library Science, Vol.29, No.1-2, Jan-Apr, pp.42.

[2] Dutta, Bidyarthi& Das, Anup Kumar (2001) "Higher Education in Library & Information Science in India", ILA Bulletin, Vol.37, No.1, pp. 25-30.

[3] Harish Chandra (2012), "Refocusing on capacity building strategic shifts for preparing LIS professionals for future Special Libraries", Leadership and Professionalism for New Age Libraries, Ed by PK Jain et al., Delhi, pp.311-316.

[4] Mondao, Dilip Kumar & Sinha, Rita (2011), "Role of college libraries for the qualitative improvement of Higher education", IASLIC Bulletin, Vol56, No.2, June, pp. 124-128.

[5] Muthu, M & Nehru, R (2014), "Leadership Skills for Library Professionals in Modern Era", Vidyawarta-Interdisciplinary Multilingual Research Journal, Vol.2, No.5, Jan-Mar, pp. 63-70.

[6] Muthu, M &Veerapandi, M (Jan-Jun, 2013) "Collection Development and their Strategies, Policies for Libraries: A Modern Era", Library Progress (International), Vol.33, No.1, pp.61-76.

[7] Muthu, M (2013), "User Education and their Innovative Strategies in Libraries: An Overview", International Journal of Professional Development, Vol.2, No.1, Jan-June, pp.46-54.

[8] Muthu, M (2014), "Competencies, Types and their Strategic thinking for LIS Professionals in Modern Era", International Journal of Librarianship and Administration (IJLA), Vol.5, No.1, pp. 61-80.

[9] Muthu, M et al., (2013) "A Changing Role of Libraries in Digital Era", "International Journal of Emerging Trends in Library and Information Society", Vol.1, No.2, pp. 55-71.

[10] Muthu, M et al., (2013) "Librarianship, Competencies and their Traditional Roles for Libraries in Digital Era",International Journal of Digital Information & Knowledge Management, Vol.1, No.3, pp. 191-212.

[11] Muthu, M et al., (2013), "Information Literacy and their Strategy: A Play for Vital Role in Libraries & Higher Education", "International Journal of Emerging Trends in Library and Information Society", Vol.1, No.3, pp.171-192.

[12] Muthu, M et al., (2013), "Knowledge Management in Libraries" Pearl: A Journal of Library and Information Science, Vol.7, Issue.1, Jan-Mar, pp.17-27.

[13] Muthu, M et al., (2014). "Information Resource Management (IRM), Principles, Process, Key Concepts and their Strategies for Libraries in Modern Era" at National Conference on Information Management in the Knowledge Era on 25th October 2014 Paper presented at DRBCCC Hindu College. Chennai-72, Ed by P Ganesan and K Sridhar. pp. 403-415.

[14] Naik, Ramesh R, "Changing Role of The College Library Professionals in the Internet Era: Trends, Opportunities and Challenges", Retrieved from: [http://dliskud.over-blog.com/article-36027362.html] Accessed on 25.05.2014.

[15] Patil, S B &Jange, Suresh (2001), "Restructuring college librarians for the 21st century: Indian scenario", Indian Journal of Information, Library & Society, Vol.14, No.3, Jul-Dec, 119-122.

[16] Pramanik, Abhijit (2010), "Total Quality Management in College Library", IASLIC Bulletin, Vol.55, No.2, June, pp. 103-108.

[17] Sivaraman, P & Muthu, M (2014), "Digital Reference Service: A Play for Vital Role in Libraries", Paper Published-Souvenir in Honour of Prof.Dr.A.Manoharan, DLIS, Bishop Heber College, Trichy.

[18] Yi, M Y, et al., (2006), "Understanding information technology acceptance by individual professional: Toward an integrative view", Information and Management, Vol.43, pp. 350-363.