

Digitization and New Role of Library Professionals

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Abstract

Digitization is an electronic process of converging information from a print format to a digital format. Digital libraries are electronic libraries in which number of geographically distributed users can access the contents of large and diverse repositories of electronic objects. If the future libraries are to survive, they have to be switched over to electronic mode because the information is fast changing and mostly resources are born digitally. The mission is to create a Universal Library which will foster creativity and free access to all human knowledge. Librarian is no more simply a custodian of reading material, but is a collector and evaluator of information. Librarian need to possess knowledge in the field of computer, networking, information analysis, Internet surfing techniques, digital sources, various web sites and organization of data embedded in them. This paper is an attempt to discuss on the issues related to the management, opportunities, advantages and problems of Digital Library.

Keywords: Digitization, Digital Library, Librarianship

1. Introduction

Print media has still not solved accurate and faster delivery of information, irrespective of time, space and cost factors involved in. The future of the library would be marked culmination of techniques/technologies which would act as a new state-of-the-art library. It is our moral duty to note down the wordings of our president of India Hon'ble Dr. A.P.J. Abdul Kalam in his recent visit of JNV University in Jodhpur. He asked all publishers of India to get ready to bring out their publications / books in CD formats or digital books before 2020 to make India succeed in the gamut of world digital knowledge.[1]

2. What is Digitization?

Digitization is an electronic process of converging information from a print format to a digital format. The process of digitization involves the scanning of the print material into digital. There are numerous scanners available like flat-bed scanner, hand scanner etc. The scanner type is dependent upon the size of the document needed to be scanned. The necessary software is available with the firm of the scanner. When a document is placed on the scanner the image of the material is taken into the computer. To transform the scanned images into text format, Optical Character Recognition (OCR) technology is needed. Optical Character Recognition technology is the technology, which converts image characters into machine language. The task of the system is to assign the respective ASCII values of the character.

3. What is Digital Library?

Computer based information system for acquiring, storing, organizing, searching, distributing and displaying digital materials for end user access; not necessarily network-based but designed and constructed so as to be capable of attaching or being attached to a network. Digital libraries are electronic libraries in which number of geographically distributed users can access the contents of large and diverse repositories of electronic objects. Virtual library is an organized, evaluated and a noted set of links to information on the Internet that enables a user in finding relevant information wherever it is resided on the web.

4. Purpose

Present library is facing many problems that is – allocation of budget, lack of staff especially skilled staff, non availability of documents, no. of copies, library security in open access system, limited library hours, life of print materials etc. With advancement of technology, the libraries are moving towards digital resources, which are found to be less expensive and more helpful for easy access. These are helpful especially to distant learners who have limited time to access the libraries from out side by dial up access by the commonly available electronic mode of access to resources mainly through CD-ROMs, OPACs and Internet etc. Therefore print media is slightly getting less preference. In developed countries 60% to 70% information is available in the digital formats, where as in developing countries like India, this availability is 2.5% so there is a great scope of transformation to digital libraries here[2]. Moreover, as of now, these are affordable and economical.

5. The Vision

- ◆ If the future libraries are to survive, they have to be switched over to electronic mode because the information is fast changing and mostly resources are born digitally. At the same time, digitization of libraries is not an easy task. It requires large amount of funds and skilled manpower including the staff with a positive attitude, rich experience and expertise.[3]
- ◆ The library is a member of the National Digital Library consortium and through it the Global Digital Library is worked.
- ◆ The print material will be available in multimedia form.
- ◆ All services are accessible from home, workplace and public libraries.
- ◆ Information access / study time per student is 70% electronic, 30% print
- ◆ Library space is 70% networked study space and 30% book stock.

The mission is to create a Universal Library, which will foster creativity and free access to all human knowledge. As a first step in realizing this mission, it is proposed to create the Universal Library with a free-to-read, searchable collection of one million books, primarily in the English Language, available to everyone over the Internet. Within 10 years, it may grow to 10 Million books. The result will be a unique platform of resources and will be accessible to anyone in the world 24x7 hrs, without regard to nationality or socioeconomic background.

6. Managing Digital Library

Digitization is done not only for preservation or archival purposes but also, rather more, on account of the other advantages and uses of the same. A digitized work can easily be transmitted to members of a library through the Net. Transmission of images and text through the Net is a communication to the public and requires the permission of the copyright owner, if the work is in the copyright regime. Libraries cannot keep away from technological progress. Technology has to be harnessed for better servicing by the libraries. The library community in India needs to play a more active role than hitherto in the area of copyright legislation in the context of digital libraries as they only would be able to guide the policy and law that makers in the matter of making balanced provisions in the law that will facilitate libraries performing their basic objectives in the new technological era.

7. New Role of Library Professionals

The three important builders of library are Library Entrepreneurs, Technocrat and Publishers. They would play a unique role before year 2020 and will be marked, as new era of the libraries especially it will be a paperless and digital library. The various changes in library system and services that is – role of private sectors, i.e. privatization of library services, high speed internet with multilingual access facility, availability of information either on net or in compact disk, networking of organization/institutions at higher levels showing their outputs through library.[4]

Librarian is no more simply a custodian of reading material, but she/he is the collector and evaluator of information. Librarian need to possess knowledge in the field of computer, networking, information analysis, Internet surfing techniques, digital sources, various web sites and organization of data embedded in them. They can update the knowledge themselves by self-learning, creative learning team approach etc. Thus librarians are being given various new names such as encoder, knowledge manager, Information scientist, resource manager etc. and so on and so forth the name is transforming day by day with the advent of technology.

8. Examples of Operational Projects

- ◆ Large number in the U.S- various institutions e.g. National Digital Library of the Library of Congress provides the widest possible access to knowledge and information for education to a society free-of-cost.
- ◆ Numerous projects in Europe e.g. Library Working Group in Britain publishers projects with National Libraries; Delos Working Group (Espirit)
- ◆ In India UDL projects are working. This was developed by Carnegie-Mellon

University (CMU), USA involving state-of-the-art planetary scanners for scanning, cropping, OCRing and XML converting. The Overall International Coordinator for this project is Prof. Raj Reddy of CMU and such an international collaboration also ensures that no duplication of efforts is involved while

capitalizing on the digital form of the information that can easily be shared and accessed. Following Indian institutions involved in this project are:

- ◆ Osmania University, Hyderabad
- ◆ C-DAC (formerly NCST), Mumbai
- ◆ IIIT, Hyderabad
- ◆ IIIT, Allahabad
- ◆ IISC, Bangalore

9. Opportunities

- ◆ Building digital collections of national importance from existing texts, documents, images – historical, educational, strategic, legislative
- ◆ Creating new digital documents and linking them
- ◆ Cataloging Internet resources in own domain
- ◆ Selecting digital resources from wherever and creating and maintaining linkages
- ◆ Developing/adapting search engines and other management tools for digital collections
- ◆ Providing access to digital collections
- ◆ Integrating digital and other library collections including integration of OPACs and library management tools
- ◆ Establishing services for digital libraries that is online access and offline support and education and training of users and librarians
- ◆ Addressing social, legal, policy issues
- ◆ Cooperative national and International ventures
- ◆ Making libraries more need and user's centric.

10. Advantages

Digitization of documents has another dimension than uploading on to a web site. It is many time a method for preserving a document from destruction. Many old copies of documents with a library may be very brittle and crumbling. Digitization is one way of preserving the document for posterity. In such a situation the need for a provision that would enable libraries to digitize their stocks for the purpose of preservation purely for archival purposes as an insurance against loss of the physical material which is worth considering. Such a provision, however, cannot be an open one. It will have to be provided with enough safeguards against misuse. Shortly we say: -

- ◆ Access many libraries now possible to use
- ◆ Sharing information resources and linking them
- ◆ Timeliness easier to keep current
- ◆ Searching, browsing: use of computer power
- ◆ Information resources: new forms possible

- ◆ Cost: may save effort money

11. Problems for Libraries

- ◆ Integration between print and digital
- ◆ mixing new digital technology with print, local with global managing diverse Resources all difficult
- ◆ economic trade-off decisions, new economic relations
- ◆ Competition for scarce
- ◆ Fund Problem
- ◆ Skilled manpower
- ◆ Hardware selection
- ◆ Selection of collections to be digitized

12. Conclusion

As it is discussed above, the present traditional libraries are facing many problems, i.e. allocation of budget, lack of staff, non-availability of documents, no. of copies, library security in open access system, limited library hours, life of print materials, etc. The only remedy of the problems is digitization of library, which is a very important need of today and for which library professionals have to play new role accordingly. But, in this process copyright issue is also one of the major hurdles of the activity that also needs to be tackled effectively as it has not been discussed here. This is also a part of Vision 2020 of the nation in respect of the libraries. There is no ultimate of it.

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