THE DIGITAL TECHNOLOGY : YET TO TAKE OFF

Surabhi Jolly

Abstract

The changing world of librarianship has paved to information highway from the traditionally embarked concept of private world. The adaptation of Information Technology (IT) for data readiness, accessibility and decision support excellence has got into the virtual environment of electronic devices in many libraries. The convergence of computer and communication technologies has linked the human minds worldwide and is trying to cut across the physical barriers.

This paper points out the gradual shift-over towards digital info high-tech from traditional rudimentary adherence thus giving rise to fears into the librarians to greater extent.

The fears are like phobia to computer exposures, stationary skills, regressive attitude, cognitive factors etc. These are the pressing challenges before the professionals of coming generation to enthuse with information highway. The paper also gives suggestions as to how to overcome the fear and develop knowledge based confidence for high tech absorption of Digitization breaking the barriers of distance.

Keywords : Digital Libraries, Technology, Fear

1. INTRODUCTION

In 1990 Alvin Toffler in his book "Power Shift" estimated that 1.3 trillion documents are appearing only in United States. By now after around 15 years the number must be tripled itself. Keeping in view the complete universe, the publication of document will be in more than in trillions.

Spectacular increase of documents is creating problems for the traditional libraries to acquire even a fragment of these documents. Information is increasing in a very rapid speed. The scientists and technologists are not able to access complete information even on micro subject in paper form.

It is very true that the standard library methods of information transfer or retrieval are not capable of handling such large data and servicing users effectively. Millions of books in various languages on various subjects are appearing the entire world. Similarly about five lakh periodicals (journals) are appearing. Undoubtly the majority of the books and periodicals are from developed countries .Even in India about 80,000 books in various languages are published annually.

The revolution of digitization is not instantaneous, it is likely to start with slow pace and accelerate over the time .It is clear that the emergence of Information Technology will severely affect the traditional functions of libraries

How soon these changes will occur is hard to predict.

The information technology may be defined as the new way of carrying out the functions of libraries encompassing new types of information resources, new approaches to acquisition; new methods of storage and preservation; new approaches to classification and cataloguing, intensive use of electronic system and dynamic shifts in intellectual, organizational and electronic practices.

In this revolution, we have seen many challenges, fear, problems and issues which are coming up like anything in front of libraries that is why the professionals are still hesitating to take up the Information Technology as a boon to them.

An attempt has been made in this paper to discuss scope, definition, and characteristics of digital libraries, challenges and issues concerning the digital libraries and Indian scenario.

2. DIGITAL LIBRARIES

A digital library is a collection of information that is stored and accessed electronically. The information stored in the library should have a topic common to all data. For example, a digital library can be designed for computer graphics, operating systems, or networks. These separate libraries can be combined under one common interface that deals with computers, but it is essential that the information contained within each library remain separate. The purpose of digital library is to provide a central location for accessing information on a particular topic.

The purpose of a digital library is to provide coherent organization and convenient access to typically large amounts of digital information. The following principles provide working definitions of a digital library from both a conceptual and a practical standpoint:

- A digital library is an integrated set of services for capturing, cataloging, storing, searching, protecting and retrieving information.

- Digital library services bring order where data floods and information mismanagement have caused much critical information to be incoherent, unavailable or lost.

- Digital library architecture emphasizes organization, acquisition, preservation, and utilization of information.

- Digital library systems are realizations of architecture in a specific hardware, networking, and software situation.

3. DIGITAL LIBRARIES AND TRADITIONAL LIBRARIES

Digital library functions, insofar as they purport to organize information, may be compared with traditional library functions. A common human artifact, such as a bound book, loses value when simply scanned into bits. In library context, where organization, access, protection, and preservation are important business functions, digitization technologies are starting points for a complicated set of computational processes that in the first instance reconstruct the cultural, conventional, and intuitive significance, structure and external relationships that defined the original artifact.

Comparison of Digital and Traditional Library Capabilities

Digital Library Capability	Traditional Library Capability
Capture	Acquisition and collection development
Catalog and Index	Cataloging rules and bibliographic control
Store	Stacks, inventory management and shelf lists
Search	Public card catalog
Protect	Patron privileges & circulation rules consistent with public law and policy
Retrieve	Loan management and interlibrary loans

Having made these comparisons, it must be emphasized that neither in the United States nor in Japan is the digital library regarded as a technology related to library automation or the provision of integrated library systems for operating traditional. None of the digital library projects were based on library automation technologies.

4. TRENDS IN DIGITAL LIBRARIES

The extrapolation of something today and its transformation into the reality of something tomorrow has been the tendency. To adapt the new ways and means or to resist the change in information handling and services is visualized through the cross sections of the technological insight. There have been massive changes in the nature of recorded knowledge akin to the revolution associated with printing.

The librarians need to have parallel touch with the cutting edge developments even as the book as a source of knowledge becomes extinct .It ought to be augmented by some other media. While discussing the scope of the paper, the basic speculations are struck on electronic technology for preserving literature. The subtle thoughts contained in the existing sources need to be galvanized to correlate the imagination-the images to the mind.

5. FEAR AND ASPIRATIONS

The adoption and acceptance of new technology (digital libraries) is never going to be straight forward and monolithic, in spite of its expected dominance. Since this paper reveals the fears of most of the librarians and end users for handling the digital libraries, the introspections of author's observations and experiences are discussed further.

6. FEARS

The fears creeping in the minds are normally due to psychological aberrations and ambient environment. Some of the realistic fears as visualized and perceived are as under:

7. TECHNOPHOBIA

In general, some people do, however, fear and loathe any upcoming technology. Individuals have several reasons for not using the new technology.

The underlying reluctance against the common users of electronic media is generally the fear of getting the system scrapped and seems to be in pivotal state of mind. In Indian scenario librarians in some organizations are happy with usual library routine services. Even during the hands on training of on –line and library automation, most of the trainees are not susceptible to training opportunity of handling electronic devices.

8. LACK OF KNOWLEDGE

During the last decade, there has been parallel growth in technology, awareness, and services. The awareness of library professionals and end users has been orthodoxical. The skill development modalities are evolved with new dimensions to familiarize the professional and end users to accept the myths and reality of digitization of the library environment. However, the lack of knowledge about any new system pinpoints the characteristics of individual librarians and their enthusiasm of learning.

There appears to be a need for an integrated approach to the problems relating to information storage and dissemination. It may be possible for information professionals to apply their knowledge to the facets of information handling for minimum distortion.

9.   TECHNO STRESS

Some experts are of opinion that there may be physical strains due to flare and glare of electronic operations. Sometimes atmospheric factors are also reactive and are found unpleasant to health. RSI (Repetitive Stress Injury) which causes physical pain and apparent computer related stress.

To work overload and glutting of heterogeneous jobs invited stress to the minds of information handling personnel. The supercession and overlapping of cutting edge technology trends for arresting high value of economy, has also been the vital factors for inherent reluctance.

10.   FEAR OF FAILURE

The jargonisation of information products and services falling within the sense of digital libraries, has given rise to another kind of fear. The shallow insight about the understanding of the system always clicks to be the failure. The office bureaucracies, fiscal inputs and maintenance implications are the major factors causing fear of fallsdrop.

Online interactive services, facsimile services, e-mail are primarily a bit of cost intensive services. The end user should invariably have to be well versed about the system functions, execution and outputs to avert the loss mania from the minds.

11.   FEAR OF FRAGILITY

The early day's librarians had been worried about the expense, safety and fragility of digital goods prone to scrapping, blasting and flammability. The backroom computing for databases, e.g. Geological interpretation was predominant and the monolithic expertise had to prevail due to the singular situation.

Now the multidisciplinary approach in the digital age has been apparently advanced. The fear of fragility, safety and high cost against digital information services, has gradually vanished at the stage of global competitiveness, precision technology and economy.

12.   RESISTANCE TO CHANGE

The problems of resistance put forth by individual, potential users, publishers' distributors, editors etc. are of the most interest in this paper. The rigid sense of some of the professional /library work forces to change to the nascency and decency of the information system remains always with the trends due to known reasons. The natural resistance of potential users to use electronic services as visualized by experts is of importance

- Psychological preparation to change their reading habits forced to go on screens.

- Expense of electronic products as compared to print products.

- Prefer to selecting needed information faster by reading the printed products than is retrieved by watching the scrolled screens.

- Affordability to electronic products in totality.

13.   REVERSE ATTITUDE

The conceptualization and social impact of digital libraries are two basic reasons for its proactive or reverse effects. The librarians and end users would definitely frown if the concept or background knowledge base to digital devices is not skilled into them well in advance. The other side is the social recognition of merits of the digital system which will push them to learn and accept. Even the most advanced information technology is of little use because of such reverse attitude.

14.   FEAR OF DOWNSIZING

With the advent of computer profiling data updating trends, the glare of status quo has occupied the corporatised organizational activities. Notwithstanding, the digital library surrogates would have been seen ideal on their table top.

These decisions makers /policy designers are either in tyranny of time resulting over occupation or due to the fear of downsizing the status as digital library accessibility , operations and back up as they think, relates to the operator themselves.

15.   ETHICAL PROBLEMS

The problems of ethical kind in terms of digital library operations, herein after concerned to end users, are prevalent almost in every working environment. The online searches, printing and organization of digital libraries are ethically scrolled up and thus the acceptance of its predominant features gets delayed.

The scientific community, others related were not supposed to interpret the data and other related information for their jobs. The backroom computing i.e. the computing process was to be done only by computer personnel, as prevailing just few years ago. Though the situation is improving yet it is imposing latent fear to digital library's success.

16.   CONCLUSION

It is not the technology itself which is good or bad, it is what we do with it. The existence of the libraries of the future depends largely on the decision of present generation, if not thought well before it will be vulnerable because other professionals start doing our jobs. Librarians have to see their primary role of maximizing the effective use of their collection rather than acting as custodians. If well taken librarians can become the knowledge counselors of tomorrow. The knowledge counselor will be then much more intellectual, requiring much knowledge at selecting, analyzing and synthesizing information.

The action words for digital libraries are "do something, start getting involved, and must participate".

17.   REFERENCES

1.   Sardhana (JI), Ed. Libraries and information services in the electronic information era: Seminar papers of 44th All India library conference held at -25-28 Feb. 1999, Hyderabad.

2.   Roy (Tennant) Digital Library, Library Journal 122 (20): 1997:32-33

3.   UNESCO. Memory of the world programme. (Online) Available http://www.unesco.org

4.   Peter S Graham. The digital library: Tasks and commitments. Digital Libraries'95: The second annual conference on the theory and practice of digital libraries. June 11-13, 1995, Austin, Texas, USA.

5. Lancaster, F.W.Libraries and librarians in the age of electronics. Info resource press, 1982, pg.150

6. Salvador, R, IBM helps libraries to go digital .Electronic learning. May 1995, pg 6

BIOGRAPHY

Ms. Surabhi Jolly is working as Asst. Librarian in ICFAI University, Dehradun. She completed her MLISc. from Lucknow University in 2005, scoring the highest marks. She is also working as visiting faculty in "Dayanand Academy of Advanced Studies" for Mlisc and Blisc (Recognized from Makhanlal Chaturdevi University, Bhopal.) She has one paper in her credit "Towards Digital Era: Knowledge Management and Role of Library Professional" which she presented at "The First All India Conference of Central Government Library Association" on 7th August at Lal Bahadur Shastri Academy of Administration, Mussoorie.

E-mail : surabhi_1982@rediffmail.com