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Paper: U

Impact of Information and Communication Technology on Library and its Services

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Abstract

The advancement of science and technology has made a tremendous improvement and change almost in all walks of life. Especially the magnetic word Information technology has been chanted in all corners of the global arena. The paper highlights the changing dimensions of library services due to the impact of ICT. The various aspects of digital library, its purpose and advantages are talked about. The most essential features such as infrastructure, staff support and budgetary aspects are also discussed with respect to Indian context.

1. Introduction

The advancement of science and technology has made a tremendous improvement and changed almost all walks of life. Especially, the magnetic word Information technology has been chanted in all corners of the global arena and been incorporate in organizational, managerial, developmental and marketing sectors. The services rendered with the help of ICT are faster and more effective. Moreover, it creates faith and confidence about the products and services of an organization among its customers.

2. ICT and Libraries

Libraries which were considered only as the storehouses of knowledge, have got a new outlook in the modern Information Communication Technology era. The activities which were carried out manually in libraries with so much of pain and strain are being carried out smoothly with the help of ICT with greater effectiveness. Library organization, administration and other technical processing have become easier and more quantum of work can be done in relaxed mood. ICT, which is the basis for the MBO, generates more results at a given time.

3. University Libraries in the ICT Era

University libraries are not the exemption from the impact of ICT. Such libraries are very much interest in incorporating the latest ICT in their administrative functions, technical works and user services. University Grants Commission liberally contributes the grants to the university and other affiliated colleges to install the ICT facilities and generate a digital environment. INFLIBNET is actively involved in the automation and digitization of university libraries. Really the encouragement and cooperation given by the INFLIBNET by its various activities like funding, training, orientation, workshops and publication made the university libraries equipped with all ICT tools for providing better services to the students researchers and teachers.

4. Changing Dimensions of Library Services

The implementation of ICT in the libraries has demanded new forms of library services to get more user satisfaction. Digital library service has evolved after the implementation of ICT in the library and information centers (3).

5. Meaning of Digital Library

A digital library is a library consisting of digital materials and services. Digital materials are items are stored, processed and transferred via digital (binary) devices and networks. Digital services are services (such as reference assistance) that are delivered digitally over computer networks. It maintains all, or a substantial part, of its collection in computer-accessible form as alternative, supplement, or complement to the conventional printed and microform materials that currently dominate library collections.

The terms such as ‘electronic library’, digital library’, ‘virtual library’, ‘web-library’, or ‘on-line library’ have been used synonymously to represent the same concept. Though the terms used synonymously to represent the same concept, the terms are used differently by different authors in the literature, the central theme of the terminology remains focused on digital content of the documents (2).

5.1 Purpose

The purpose of digital library is to facilitate access to electronic information, print material, and library services to ensure that the information needs of user community are met, regardless of their location. It enables libraries to deliver valuable information that already exists within library walls electronically to patrons outside those walls, to create new digital resources locally, and to integrate local digital resources with remote ones.

The number of people accessing digital collections through the WWW also shows explosive rates of growth. Finally, internationalization is making a “global information environment” a reality.

The purpose of a digital library is to provide:

- Interaction with potential information users;
- Interaction with information resources; and
- Mediation between information resources and users to add value during the information transfer process.

5.2 Advantages

- Digital libraries are essential to enable more people to create and use vast amounts of distributed information and to contribute to the quality and quantity available via the web and future access frameworks.
- Digital libraries remain closely linked to advances in high performance computing and networking and both contribute to and validate these technologies.
- Digital libraries are inertly international knowledge is recorded and stored in many forms, often using different languages and symbol systems.

5.3 Services

The purpose of digital library services is to enable the user to access the information required for knowledge enhancement. Digital library services include information about all the services, collections, digital resources, library instruction sessions and services. The specific services of digital library include providing remote access library resources-both printed and non-printed, service deliveries and generation information on library. Depending upon the bylaws or regulations of the individual organizations, the access could be limited to members, or limited to certain resources like commercial database, where only members can access them through password (1,2,6).

5.4 The Model Library

A Model library would provide the following services to its users regardless of their geographical location.

- Circulation of books, photocopying of articles etc.
- Online/Off-line reservation
- User services such as membership, query
- Database Searches
- Interlibrary loans
- Reference support for subject searches
- Assistance in using computer facilities
- A Liaison librarian
- User education and training programmers
- Access to library catalogues, database, internet
- Current awareness service
- List of new publications received
- Flexible methods of submitting requests, e.g., via telephone, facsimile, email, WWW, post
- Electronic reference desk

5.5 Requirements

The Internet has become single most important platform enabling connectivity to service provider, customers, suppliers, and employees. Successful implementation of a digital library requires:

- Budgetary and management support
- Acquisition of digital content
- Infrastructure support,
 - Expanded Remote Access,
 - Hardware Upgrades,
 - Software Support and
 - Support of staff.

5.5.1 Budgetary and Management Support

The process of library reorganization cannot be successful without the support of management. As financial allocation is the prime concern to any organization, the annual increases to the budget is essential to allow for the planned growth of digital resources.

5.5.2 Acquisition of Digital Content

The range and availability of digital content are expanding rapidly. Scholarly materials such as indexing and abstracting services are being linked to full text electronic journals, multimedia presentations, and digital copies of publications originally published in print are example of the types of resources which are readily available. In order for the digital library to become a reality, more electronic content is required, including full text resources from a variety of publishers covering a range of disciplines.

5.5.3 Infrastructure Support

The infrastructure constitutes provision of necessary hardware, software and communication channels. Internet platform to connect telecommunication lines must be kept open. Proper software support is essential to provide security, reliability and to enhance the performance of the digital library services. It is an ongoing long-term project.

a. Staff Support

Whatever the technological advantages are, if the staff is not capable or trained properly to handle technical and professional works, the whole process go in vain. Staff training and increased knowledge throughout the library regarding concept and issues involved in digital libraries, electronic publishing and electronic information technology, is important to provide competent service to the users.

b. Human Aspects

The Library staff's roles and responsibilities change dramatically with redesign. Some staff members need to learn new skills for their new assignments.

c. Customers

To make sure customers understand what the new services will do for them, most information centers develop a marketing campaign. The library needs to collect, store, preserve and provide access to the increasing amount of digital material that is being published (4).

6. Indian Scenario

Regarding library environment, the digital movement is yet to take off. In the absence of strong telecommunication channels, the Internet facility is yet to find its success. Financial constraints are the major hindrance for the growth at national, local and organizational levels. As a result the implementation of IT facilities for libraries are not receiving adequate support from their parent body. Majority of libraries in India do not have computer facilities. The print media is still a major source of information in libraries. The Indian libraries will be deprived of digital information if they cannot find a mechanism to acquire such materials and a facility to read them. Sooner or later the management authorities would realize the need of this vital change and start tuning to the present day requirements.

7. Reference

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