Information Communication Technology In Academic Libraries

Mrs. Rakte Jyoti Bhausaheb
Librarian, J. B. S. P. M's Arts and Science College Shivajinagar, Gadhi.
Tq. Georai, Dist- Beed
Corresponding Author- Mrs. Rakte Jyoti Bhausaheb
Email- jyrakte@gmail.com

Abstract-

The paper highlights the state of ICT in Academic and Special Libraries. With the breakthrough in digital technology and computerization of information services libraries have undergone lot of changes in terms of collection, organization and services. In spite of these changes most of the academic libraries still have traditional manual working system for library and information services. ICT in library services can definitely reduce the workload pressure to a great extent. Library staffs are protected from work stress and fatigue and ensuing health hazards. However, ICT Application in Academic Libraries, ICT and library services, Librarians role in academic Libraries is discussed in the paper.

Keywords- *ICT Application in Academic Libraries, ICT and Library Services, Librarians Role in academic Libraries, Advantages and Disadvantages of ICT in Libraries etc.*

Introduction-

The libraries like Indian Institutes of Technology (IIT) libraries which are highly automated and also totally manual libraries which are really restricting the speed of academic and research in the country. Present generation is experiencing a Science and Technology Era. Due to advancement of Science and Technology, particularly Information Technology everything has gone a sea of change. Library is not an exception and has been drastically changed in terms of collection, organization and services. Simultaneously, user's demands, attitudes and information seeking behavior have dynamically changed. They want relevant, authentic information at the click of a key within a single place at their hand. This concept has posed challenges for library professionals for quick delivery of library and information services. Modern society is characterized by an increasing need for specialized institutions in various fields of activity for the performance of their day to day functions as well as research and consultancy work. These institutions require speedy access to qualitative published information. Exposure, methods of storage and dissemination of information are changing fast, no library can store all published information and can provide efficient services with its old manual operations. Therefore, 'ICT' is important and necessary to handle the vast amount of information and for providing faster, accurate, precise, efficient and effective information and services as well. In this era of computerization, traditional manual working system still exists in Indian libraries; Automation to a greater extent can reduce pressure of library workload and also shelters from work stress and fatigue. It not only offers efficient services and opens a new era in bibliographical control but provides access to required database in the country and abroad as well. Computerized library service is likely to be beset with technological, economic and attitudinal problems peculiar to most developing countries.

Definition of ICT-

Information and Communication Technology (ICT) may be defined as the convergence of electronics, computing, and telecommunications. It has unleashed a tidal wave of technological innovation in the collecting, storing, processing, transmission, and presentation of information that has not only transformed the information technology sector itself into a highly dynamic and expanding field of activity- creating new markets and generating new investment, income and jobs but also provided other sectors with more rapid and efficient mechanisms for responding to shifts in demand patterns and changes in international comparative advantage, through more efficient production processes and new and improved products and services. **American Library Association (1983)**-defined information communication technology (ICT) as the application of computers and other technologies to the acquisition, organization, storage, retrieval, and dissemination of

information. The computers are used to process and store data, while telecommunication technology provides information communication tools, which make it possible for users to access databases and link them with other computer networks at different locations.

Research of objective –

To study Information Communication Technology in Academic Libraries.

Research Methodology-

The current study 'Information Communication Technology in Academic Libraries' is based on secondary data collected from different sources. The secondary sources are concerned they were accumulated from online databases, articles and books. The research method applied to the present study is descriptive research method. In this paper an attempt has been taken to analyze the Information Communication Technology in Academic Libraries.

ICT Application in Academic Libraries-

The emerging new technologies have revolutionized the methods of information storage and retrieval in academic library field. In this Internet era more and more libraries in the world make use of these new technologies for storage, retrieval and dissemination of information in more effective way. Libraries can store huge amount of information using new technologies and transmit this information to any where anytime without any geographical barrier. Scholars fulfill their thrust of information using new technologies without wasting their precious time. ICTs facilitate for rapid transmission of information globally through its networks. It helps library professionals to manage their housekeeping and documentation activities such as circulation, acquisition, maintenance of catalogue, periodical management etc. in the libraries by automating them. These innovative technologies made convenient platform for the scholars to make use the information as well as to explore them. The other automated services in the libraries are storage, dissemination and advance searched for the scholars such as SDI, compiling bibliographies, indexing/abstracting etc. Traditional library housekeeping methods are now carried by using newer technologies. Newer technologies have given better solution to most of the problems encountered in the field of library related to the acquisition, organization of information, reference services, circulation and bibliographical services.

Following technologies have applied in libraries to face their housekeeping problems and to seek better solution-

Mrs. Rakte Jyoti Bhausaheb

1.Computing technology (hardware/software)
2.Communication technology
3.Network and Internet technology
4.Web world
5.Printers/Publishing technology
6.Reprographic and micrographic technology.

ICT and Library Services-

The following library services can be rendered using information and communication technology (ICT)-

On-Line Public Access Catalogue (OPAC)-

ICT has revolutionized the practice of cataloguing in the library. Using OPAC users can see the holdings of the library collections. It reduces the cost of maintaining a library catalogue. It also eliminates pen and paperwork, along with it helps in the preparation of union-catalogue. OPAC is the easiest way to get the information of collection, weekly new arrivals and other recent addition to the libraries.

Reference Service-

By using computer and internet technology, the reference service has become very simple. Various types of information resources like the encyclopedia, directories, dictionaries, databases, online library catalogues, maps, biographies, patents and online information resources are available on the internet which can be used to provide required information to the users. In the reference section, queries are answered through the telephone. For ready reference service, library staff uses Internet and Email facility. The computer has provided a great promptness to reference section. The role of technology in reference services are as follows:

1. Library staffs fulfill the demands of the users through various electronic resources like database, library catalogue database, directories etc.
2. In reference service, services are also provided to the users regarding information available on the internet after getting delivered through the computer.

Inter Library Loan (ILL) Service -

Inter library loan is a technique by which one library lends material indirectly to an individual through another library. In essence, there- fore, it Is merely a means through which a library may broaden its lending service to include those materials which are made available by other libraries. The technique of interlibrary loan, of necessity, entails a lending operation, but regardless of where the actual work is per-formed-circulation, acquisitions, etc.-the principle involved is one of reference: that is, to provide the library user as completely as is

possible with the material he needs. DELNET in India is a best example of providing interlibrary loan service to its member institutes.

Reprographic Service-

Reprographic technology is used for the reproduction of the documents. Using technology, the photocopy and the reproduction of the documents has become very easy and accessible. In this technology, printed documents are converted into digital form, then photocopy is prepared.

Selective Dissemination of Information (SDI) Services-

Hensley (1963) stated 'SDI involves the use of the computer to select from a flow of new documents, those of interest to each of a number of users. This process may be thought of as the inverse of information retrieval. In information retrieval, a user precipitates a search of a file of documents. In SDI a document precipitates the search of a standing file of user interests'. Through the computer, the profile and document of user are prepared and aligned. As per the need of the users or area of interest, various online databases, electronic resources and other materials are viewed and selected; finally required information is sent to library users.

Document Delivery Service-

It is difficult for the library to procure every type of resources published across the globe because of financial constraints.

Bibliographic Service-

Through the computer, bibliographic services have become convenient. Nowadays, libraries and publishers are providing bibliographic service to the library users. Bibliographic software such as End Note, Ref Works, Zotero and Mendely are very much helpful to compile the list of references for the research work.

Translation Service-

Mechanical translation is carried out with the help of ICT. For this purpose, various online tools like Babble fish translator and Google translator can be used to make translation from foreign languages to English and vice-versa.

Database Search Guide-

At present, databases have become the central focus for exploration of varieties of the research problem. Researchers are using databases hugely for their research work. Searching and retrieving the online resources or data from the database has become very easy in the ICT environment.

Librarians Role in Academic Libraries-

In this modern ICT era librarians are no longer sufficient to be custodians and organizers of information and they play a major role in an academic library. Academic library has become center piece of any university, research institute as never before and growing at a tremendous speed. The services provided by the academic libraries are changing according to the day to day user needs and becoming very essential. Users of the academic libraries expect internet based information services, global networking, web-based digital resources, electronic and multimedia services etc for their scholarly work and librarians should be expert on these new technologies to provide efficient services to their customers. Librarians should know how to select, organize, locate and use the resources and preserve the data regardless of its format or technology. Emergence of ICTs changed librarians role from traditional era to electronic era and their knowledge on ICT should be sharpened by learning and applying new skills to the scholarly community.

Advantages and Disadvantages of ICT in Libraries -

Some of the advantages of information communication technology include:

1. Access to unlimited and updated information from different sources
2. Reforming and combining of data from different sources
3. Speedy and easy access of information
4. Reduce the workload of the library staff
5. Collaboration and creation of library networks
6. Avoid repetition of efforts within a library
7. Increase the range of services offered
8. Save the time of the users
9. Improves the quality of library services
10. Enhance the knowledge and experience
11. Improve the communication facilities.

Some Disadvantages of Information Technology include-

1. Insufficient funds
2. Inadequate trained staff
3. Unemployment
4. Operational costs are exceeding year by year

Conclusion-

In conclusion, the challenges in higher education are enormous in the 21st century. The traditional methods of teaching and learning are giving way to new order which is highly dynamic and likely to remain so in future ICT is a modem concept and information provider tool. Academic libraries are facilitating more timely exchange of information among scholars and improve distance learning without any geographical barrier. It supports teaching, learning and research while reaching unreachable without walls. Greater revolution has occurred in the libraries recent past

Mrs. Rakte Jyoti Bhausaheb

converting paper-based libraries to electronic based ones. With the emergence of ICTs and availability of national and global networks, libraries have turned their attention to digital collections rather than building printed-based collection. In this way, librarian's role dramatically changed and is responsible for what e-repositories available for their users and how users can access to the available information within the physical walls of the library or elsewhere.

References-

1. Ahmad, N., & Fatima, N. (2009). Usage of ICT products and services for research in social
    Sciences at Aligarh Muslim University. DESIDOC journal of Library and Information
    Technology. 29(2):.25-30.
2. Deshmukh, Vijay M. (2010). 'ICT and College Library, Role of College Librarian in the
    Information Network Era proceedings. UGC sponsored state level conference, Nagpur:
    V.M.V. Commerce, J.M.T. Arts & J.J.P. Science College. 6th September. pp 26-27.
3. Jain, P.B. (2010). 'ICT & Its Impact on Academic Libraries, Role of College Librarian in the
    Information Network Era proceedings. UGC sponsored state level conference, Nagpur :
    V.M.V. Commerce, J.M.T. Arts & J.J.P. Science College. 6th September. pp 28-30.
4. Singh, Mahendra Pratap. (2008). Use of Information Technology in Library and Information
    Science. New Delhi: Ess Ess Publications. P 21.
5. Tekale K.U., Veer D. K., Rathod S.N. (2010). 'Impact of information communication and
    Technology on library and library services. Academic Libraries on New Horizons Conference
    Papers Seventh State level Conference of Library and Information Science Study Circle,
    Amravati. 2-3 January, pp. 133-136.
6. https://en.wikipedia.org/wiki/Information_and_communications_technology

Mrs. Rakte Jyoti Bhausaheb