

## TRENDS AND IMPACT OF INFORMATION COMMUNICATION TECHNOLOGY IN LIBRARIES

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**Abstract:** *Information and communication technology (ICT) plays a vital role in bringing about changes in every sector. Library is also one of the parts where the information communication technology is widely using. Information Communication Technology has changed the nature of academic libraries. This paper discussed the impact of ICTs in library and information services and gains of ICT. There are many technologies which are using day by day practice and also satisfy the user information needs in less time. This paper assessed the need for ICT application in library services. This paper went further the impact and application of ICT in libraries as good opportunity for giving the best and quick services to its user.*

**Keywords:** - *Information communication Technology, Information services, application of ICT*

### Introduction :-

Now day information is most valuable thing in the world. Information is commodity wealth and product. Information technology has transformed the whole world into a global village with a global economy which is increasingly dependent on the creative management, services. ICT may be defined as technology which is used to store, progress and communicate the required information on demand or in anticipation. ICT is a very broad term in the field of information technology which is brought to use in information and its communication. Computing technology, communication technology, and mass storage technology are some of the areas of continuous development that reshape the way libraries access, retrieve, store, manipulate, and disseminate information o users. ICT has impacted on every sphere of academic library activity especially in the form of the library collection development strategies, library building and consortia. Information and Communication technology (ICT) has brought unprecedented changes and transformation to academic library and information services. The impact of ICT characterized on information services by changes in format, content and method of production, and delivery of information products. ICT plays an important role in academic libraries and their professionals. Due to ICD professionals give quick service to user and they work with technologies. They use ICT in conventional work as well as services with the help of IT, communication, network and internets. ICT is more essential part of academic libraries now days.

### Needs of Information Communication Technology:-

Due to information explosion it is very difficult to handle large information with traditional library tools like manual catalogue, bibliographies, etc. In today's library environment, to provide the right way, is not possible without ICT application. ICT has become necessity and need. The quality, user friendless, effectiveness, reliability and regularity of library services can be much improved through ICT.

- To utilize the growing world of electronic information, application of ICT is necessary.
- With the help of ICT it is possible to gain local, national, regional and international reputation
- To provide regular updates on topics of interest to users.

### **Concept and meaning of Information Communication Technology :-**

Information communication technology incorporates a range of technologies used to support communication and information. Information communication technology includes both networks and applications. Networks include fixed, wireless and satellite telecommunications, broadcasting networks. Well-known applications are the Internet, database management systems and multimedia tools. By implication, a holistic understanding of ICT necessarily includes consideration of telecommunications policies, information policies and human resource development policies. Information communication technology is a diverse set of technological tools and resources used to communicate and create, disseminate, store and manage information <sup>6</sup>.

Marcelle<sup>7</sup> argues the ICT sector is a heterogeneous collection of industry and service activities including information technology equipment and service, telecommunication equipments and services, media and broadcast, Internet service provision, libraries, commercial information providers, network based information services and related professional specialized services<sup>5</sup>. Hamelink provides a useful and clear definition of ICT indicating, ICTs are those technologies that enable the handling of information and facilitate different forms of communication. These include capturing technologies, storage technologies, processing technologies and display technologies.

### **Necessary components of ICT in Libraries:-**

Rahman<sup>8</sup> stated that ICT is the fusion of two important technologies: electronics and communications.

- Computer Technologies :- The dramatic development in the information transmission process in every field of human endeavor has been made by the widespread use of computer technology that can further be divided into following categories:
- Workstations: These are expensive and powerful computers used mainly by engineers and scientists for sophisticated purposes. These include following:
- Mainframe computers: Mainframe computers are fast, large capacity computers, after the super computer, occupies a specially wired, air-conditioned room is capable of great processing speeds and data storage.

- Super computers: Super computers are high-capacity computers that are the fastest calculating device ever invented. It may have a vector processing design or massively parallel processing design.
- Mini computers: Mini computers are refrigerator-size machine that are essentially scale-down mainframes. Minicomputers are becoming more important as servers in networks.
- Personal computers: - These are desktop, floor standing or portable computers that can run easy-to-use programmes such as word processing or spreadsheets.
- Microchip Technology: - A microchip is a tiny piece of silicon that contains thousands of micro-miniature electronic components, mainly transistors. The microprocessor of microcomputer, which process data, is made from microchips.
- Artificial Intelligence: - AI is a group of related technologies that attempts to develop machines to emulate human like qualities, such as, learning reasoning, communicating seeing and hearing.
- Software technology: Software consists of the step-by-step instruction that tell the computer what to do. Many software packages for various applications services and management are commercially available. Some of the important library packages available are <sup>10</sup>.
- Audio-visual Technology : Motion pictures, television, videodisk are the main contributions of this technology videodisk is a new medium containing prerecorded information in the form of images on the screen of a television receiver at, will. Videodisc technology offers high quality storage, image stability and speed of recall.
- Electronic Mail: E-mail is the electronic transmission and receiving of messages, information, data files, letters or documents by means of point- to –point systems or computer-based messages system.

### **ICT Based User Services:-**

Use of ICT in libraries enhances user's satisfaction. It provides numerous benefits to library users. Some of the benefits are.

- Provide speedy and easy access to information
- Provides remote access to users
- Provides round the clock access to users
- Provides access to unlimited information from different sources
- Provides information flexibility to be used by any individual according to his/her requirements
- Provides increased flexibility
- Facilitates the reformatting and combining of data from different sources.
- Libraries are also providing various ICT based services to their users, including the following <sup>9</sup>.
- Provision of web access to OPACs
- Electronic document delivery
- Networked information resources

- Delivery of information to user's desktops
- Online instructions
- Online readers advisory services
- Web access to OPACs: - Libraries are providing access to web-based online public access catalogue (OPAC) interfaces. This is making it easier for OPAC users to learn and use these resources since they only have to learn how to use one universal access client, the web browser.
- Electronic Document delivery: libraries are implementing ICT-based interlibrary lending system using electronic networks to deliver copies of journal articles and other documents in digital format.
- Networked information resources: Libraries are providing their users with access to networked information resources, i.e. databases, electronic scholarly journals, encyclopedias, public government information, etc., provides by various publishers or suppliers.
- Information delivery to users: Library and information users are now getting access to electronic information resources from the computer desktops in the computer laboratories, internet cafes, offices and even at home. This is resulting in librarians and other information specialists investigating and implementing systems that can deliver customized information to user's desktop computer environment, irrespective of their geographical location.
- Online instructions: - Libraries are also implementing online based bibliographic or library use programmes. These include online tutorials on searching online resources and virtual tours of library collections.
- Online reader's advisory services: Libraries are implementing web-based versions of reader's advisory services and reference services. These include services such as informing users via the web about new acquisitions, providing reviews and recommendations, providing facilities for readers to interact with the reference staff

### **Impact of ICT on Libraries:-**

21<sup>st</sup> century's libraries are not only store house of knowledge but an effective mechanism to facilitate dissemination of knowledge promoting and sharing intellectual properties. The role of librarian as facilitator of information access and disseminator of information is well established. LIS professionals in ICT world having Basic Skills and Soft Skills. Basic skills I.E. Behavior, Attitude, dressing look, body language, time management, problem solving schemes, flexibility, adaptability and self-confidence, team work skill. In soft skill professionals having awareness of technology OPAC, ICT, library software, e-resources-libraries, searching knowledge, ICT based working in conventional work, customer's service, writing skill, communication skill, interpersonal skill, public relation, leadership skill, presentation skill, personal skill, marketing skill and knowledge skill. Presently ICT impacts on different levels of librarians. Improvement in ICT and extensive use of ICT result in electronic information sources and digital media collection. Librarian makes a library in form of knowledge storage and retrieval LIS professionals specially academic libraries plan and implementation services for future, they will need to ensure that

use of information through the new information services, development of effective instructional/ orientation program on ICT based to users and researchers. So ICT world librarian having multidimensional attitude in a LIS sector as librarian.

### Conclusion:-

The emergence of IT is one of the wonderful gifts of modern science and technology which has brought tremendous changes in library and information science. Information technology has broken the world wide boundaries, new apparatus and methods help to provide better services to the users. The success of libraries and information science profession and professionals mostly depends on the way and amount in which they can use information technology in the stage of their tasks, and the productivity in setting their targets. Information technology helps to grow the rank of the library and it concentrates the work style of the library professions. Information technology helps to go beyond the universal restrictions, and attempts to secure new device and methods to provide better and efficient services to the users.

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