Role of Information and Communication Technology (ICT) in Library

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ABSTRACT
Meaningful Information is the backbone of the any country. It is pertinent for the all living organism on the earth. The recent information technology has a key for the new inventions, and people came with together like a village. The paper discusses the very fast growth of information service providing by information centers and libraries. Today libraries are not only a repository of books and other studies material but also these are information service provider with the help of information technology. IT based services fulfill the all requirements of the users at the right way, right time and the right user.

Keywords----- Information Technology, ICT, Information Centers.

I. INTRODUCTION
Human society has been always changing and moving towards better socio-economic situation than ever before. In present time we are living in information age one of the vital forces of this age is information, which is presently driving all our human activities. Therefore information has become a vital resource for societal development. It is now an indispensable raw material for right decision making from personal level to the government level. It is only the information, which is dividing the world between fast moving economies that do not use it. The backwardness or forwardness of any country now days is mainly due to the use of adequate information especially paved the way for development of any country in the world.

Information Technology (IT) means a variety of technological applications in the process of communication of information. The term information technology has been used as collective term for the whole spectrum of technologies providing the ways and means to acquire, store, transmit, retrieve, and process information.

ALA Glossary: “Information technology is the application of computers and other technologies to the acquisition, organization, storage, retrieval, and dissemination of information.”

British Department of Industry: It defines Information Technology as “The acquisition, processing, storage and dissemination of vocal, pictorial, textual and numerical information by microelectronics based combination of computing and telecommunication”

Webster’s New encyclopediA: “Information Technology is the collective term for various technologies involved in the processing and transmission of Information they include computing telecommunications and microelectronics”

Information Technology Association of America (ITAA): “the study, design, development, implementation, support or management of computer-based information systems, particularly software applications and computer hardware.” In short, IT deals with the use of electronic computers and computer software to convert, store, protect, process, transmit and retrieve information, securely.

In this definition, the term "information" can usually be replaced by "data" without loss of meaning. Recently it has become popular to broaden the term to explicitly include the field of electronic communication so that people tend to use the abbreviation ICT (Information and Communication Technology). Strictly speaking, this name contains some redundancy.

II. HISTORY OF INFORMATION TECHNOLOGY

A particularly important aspect of contemporary technological innovation is the quest for new ways to capture, store, process, transport and display information. Although the prevailing expectation is that progress in this field will have a profound impact on societies, expert opinions differ about whether this impact will be positive
or negative. In fact it is difficult, if not impossible, to foresee the future social and economic implications of the adoption and proliferation of new information and communication technologies, and this creates a serious problem for policy makers.

The term "information technology" came in use in the 1970s. Its basic concept, however, can be traced back even further. Throughout the 20th century, an alliance between the military and various industries has existed in the development of electronics, computers, and information theory. The military has historically driven such research by providing motivation and funding for innovation in the field of mechanization and computing.

The first commercial computer was the UNIVAC I (1951). It was designed by J. Presper Eckert and John Mauchly for the U.S. Census Bureau. The late 70s saw the rise of microcomputers, followed closely by IBM's personal computer in 1981. Since then, four generations of computers have evolved. Each generation represented a step that was characterized by hardware of decreased size and increased capabilities. The first generation used vacuum tubes, the second transistors, and the third integrated circuits. The fourth (and current) generation uses more complex systems such as Very-large-scale integration or System-on-a-chip.

III. COMPONENTS OF INFORMATION TECHNOLOGY

Information technology may be conveniently grouped into: Processor technology, storage technology and software aspects. Computer consists of electronic components assembled in a design or “architecture” that will perform necessary functions of input, output, computation and control (control of both the computer itself and of attached peripheral devices that perform input and output functions and store files). In the past, electronic components were expensive therefore, a minimum number were used in a single processor that alternately used to perform input, processing and output.

IV. THE CONCEPT OF INFORMATION RETRIEVAL

The term Information Retrieval was coined in 1952 and gain popularity in the research communities from 1961. The concept of information retrieval presupposes the there are some documents or record containing information that have been organized in an order suitable for easy retrieval.

V. ADVANTAGE OF IT IN LIBRARY AND INFORMATION SERVICES

Information technology helps the users to eliminate the duplication in the routine work. It helps us to provide pinpointed, exhaustive and expeditious information to the community.

Information technology removed the two major constraints- storage and retrieval of huge mass of information, accuracy in daily routine work, geographical limitations, and preservation of rare information can be done without affecting its utility. Library is available online to its users round the clock. It offers many advantages to librarians at their work place especially in carrying out tasks which were previously either impossible or enormously difficult. IT provides librarians with a new set of alternatives for collecting, organizing and disseminating information effectively and expeditiously, improve stock control and better quality of working life for all concerned development of new services, improvement to existing services and higher profile for library. Provision of quality information services, redundancy of depth of classification saving a lot of time, provision exhaustive information etc., added advantage of information technology over traditional techniques.

VI. SUGGESTIONS

In changing environment of information, Technology plays an important role and becomes the basic necessity of life. Due to the multidisciplinary growth of information every document becomes necessary to its user. The information is being produced in variety of forms from every corner of world which makes impossible to acquire all information for the library. The library can provide all these information to its users through effective library services and proper implementation of technologies. The library provides information to its users according to their requirements through journals, textbooks, encyclopedia, newspapers, yearbooks, etc. and also through materials available in different forms like CD-ROM, floppy, DVD, online databases, etc., but all the libraries are not in the position to acquire all the information sources due to their financial problem. So it is
very important for the libraries to acquire the most adequate source of information in their available budget. With the advent of IT the entire world has changed into a global village. With the help of IT information from any part of the world can be searched and acquired in very less time. But this benefit can only be taken by those who are aware of IT.

VII. CONCLUSION

A wide variety of technology options can be used. Equipping the library with the state of art information technology product and services enables the library system to meet the complex and ever increasing information needs of its users.

BIBLIOGRAPHY