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**Research Article**

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## **EMERGING TRENDS AND TECHNOLOGIES : IMPACT OF INFORMATION COMMUNICATION TECHNOLOGIES (ICTs) ON LIBRARIES AND LIS PROFESSIONALS**

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### **Abstract**

Technology is the major driving force for change. It is the facilitator to overcome the delaying factors. ICTs and its tools have always been helpful in extending information services. They have changed the methods of teaching, learning, research and extension activities in a higher education system. This paper highlights the impact of integrated ICTs and Web technology tools on libraries that can transform the profile of libraries for better and improved information services.

*Keywords:* Impact of ICTs, ICTs, Web Technologies, Libraries, Librarians.

### **Introduction**

Its the technology that instantly connects to the resources around the world. ICTs are a platform to deliver education around the world. ICTs are increasingly being used to fulfil the promises of universal education. ICT is an important part of both formal and informal education for creating opportunities for lifelong learning. Information is an important resource and ICT and Web technology tools

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are used to create, collect, consolidate and disseminate information. In a developing country like India majority of libraries or information centres are lagging behind in making optimum utilisation of ICTs and Web technologies tools. At the same time, ICTs have become the integral part of libraries today, leading to effective and efficient time and cost saving information services . Integration of ICTs and Web technologies have become the basic necessity of libraries to enable information services in a broader concept.

### **Information Communication Technologies (ICTs)**

ICTs are computer related hardware and software that enable to create, collect, consolidate and disseminate information in multimedia formats for various purposes. ICT development have brought the merger of the computing information, communications, entertainment, massmedia industries, for providing a means of exchanging information in digital format.

The German ministry of development and economic co operation defines ICT as:-

*“All those technical instruments and set ups that transform all kinds of information.....through the intelligent linking of hardware, software & transformation nets.”*

Another definition of ICT states :-

*“They are the computing , communicating facilities and features that variously support teaching , learning and range of activities in education in various fields”*

### **Components of ICTs**

The main components of ICTs are :

- Computers
- Networking
- Internet
- Display screen technologies & peripherals
- Information systems

- Software
- Hardware (cpu, printers, digital camers, audio visual equipments etc.. )
- Humanware ( refers to skilled personnels).

**Impact of ICTs on soceity:**

- More efficient national and global infrastructures.
- More efficient access to information and deliver of information
- Increased production and availability of more powerful ICT hardware and software.
- Increased production and publication of multimedia digital information

Therefore ICT fosters and inovative educational approaches.

In India, numerous initiatives have been started by both public and private organisations. The importnace of using ICT for education has been emphasised for over a decade.

India`s capital city Delhi enjoys the strong ICT infrastructure and talent in the feild of education system. And since 1980`s Karnataka has been leading India in It and biotechnology and was the first state to annouce IT policy in 1997.

**Impact of ICTs on Libraries**

- Anywhere anytime availability
- Global reach
- Cost effective
- Directo to the end user
- Change in role of ‘librarians’ - as ‘facilitators’
- Networking and sharing of information resources
- Online access & file transfer
- Information cretion in digital formats
- Transfer of digital information from remote sites

Libraries will be not only be networked, but also stocked with core collection (multimedia). Applications of ICTs in libraries will have access to global information and will also become digital and virtual.

### **Digital information in libraries**

- Cost effective
- Easy to access and share within no time
- Distribution of information made easier &
- available to all at the same time
- Modifies librarian's role in various ways.

### **Web-based library advantages**

- Internet access
- Access to E-journals, E-resources, E-books, etc.
- Subject gateways
- Digital libraries of local contents, archives & other services.
- Web 2.0 (RSS, podcasting, blogs, mash-ups, flickr, wikis , etc)
- E-mails and social networking
- Web casting
- List serves

### **Impact of ICTs on Library operations**

<i>ICT based library activities</i>	<i>ICT based library services</i>
Data processing	CD –ROM searching
Communication	Online searching & information servs.
Circulation	Online networking
Cataloguing	News clippings & scanning
Bibliography	Online reservations
Serial control	Subject database
Preparing in- house database, etc.	OPAC , etc.

### **Impact of ICTs on Users**

- Increases the level of digital literacy/ e-literacy
- Increases demand for better and faster access to information
- Aggravates discrepancies between the information rich and the poor

### **Impact of ICTs on LIS Professionals**

The revolutionary developments in ICTs has three impacts :

- ❖ The implementation of ICT in libraries are very useful for users and LIS professionals for speeding upon the accessing and maintaining of the information as well as the automation of the libraries.
- ❖ As more and more information is readily available in machine readable form, there has been a fundamental shift in the concerns of the information in print form.

As computers are increasingly used for providing information, the LIS professionals must familiarize themselves with the latest technological developments in the field of ICTs. The disruptive changes have led the Librarians / LIS professionals / Information providers to perceive their roles as creators, collectors, communicators and consolidators in an information society. Developing profession related skills gives a good grounding to the use of ICTs and web technologies in a wider context. And hence :-

- ❖ There is a need for ICT knowledge , ICT skills , Web technologies & its tools.
- ❖ There is a need for continuous learning in the context of rapidly changing ICTs.

Along with the above, the LIS education must integrate ICT into the curricula and some short-term courses to produce graduates to accustom to the changing environment of advanced technologies.

### **Required ICT skills for LIS professionals**

The following activities refers to the basic computer skills , knowledge of Operating systems (windows, Linux, Unix...), Microsoft application skills, Email skills, World Wide Web skills, etc

- ✓ Subscriptions and access to online journals.
- ✓ Access and retrieval of information through web resources.
- ✓ CD-ROM browsing and search services.
- ✓ Access to digital libraries and online databases.
- ✓ Use of library automation software packages .
- ✓ Web designing ,creation and maintenance of library website and library blogs.
- ✓ Creation and maintenance of databases using RDBMS software.
- ✓ Skills pertaining to hardware and networking.
- ✓ Knowledge and skills pertaining to operating systems, programming languages and application software.

### **Communication Skills**

- ✓ Listening effectively, transmits information accurately and understandably, and actively seeks constructive feedback.
- ✓ Providing timely, accurate, and candid information on critical issues (planning/progress/results) to colleagues and team members.
- ✓ Identifying the critical issues to be communicated in complex situations.

- ✓ Presenting information or data in a format that is efficient and understandable.
- ✓ Taking into account how different audiences and cultures are likely to respond and endeavors to choose the best method of communicating the message to each audience or culture.
- ✓ Using simple examples, illustrations, or analogies to explain concepts.
- ✓ Writing clearly, logically, and concisely.
- ✓ Demonstrating small and large group communication skills to enhance and encourage open dialogue.

## **Conclusion**

Libraries and LIS professionals must cope with the demands of the information society. LIS professionals must possess the knowledge, skills of ICT and webtechnologies and its tools. ICT policies focus on the ability of libraries to take advantage of the technological opportunities available and to exploit them for education advancements. The new way of dealing with information & knowledge through ICT application has an impact on the way the institutions work and function. Therefore, the key success factor of performing the role of an information support system for the whole of society lies within a library system and its personnels.

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