Abstract
The paper discusses various issues related to ICT in library with respect to current digital era. Library and Information Services (LIS) are being transformed by technology and they have to adapt to these changes to meet their users’ changing needs and growing expectations. Rapidly developing information and communication technology are creating new opportunities and challenges for traditional libraries. The new trend world over is to move towards digital collection. Existing libraries are busy digitizing their traditional collections via online subscriptions and planning, design, deployment and ongoing operations management and technical support of and ICT infrastructure. (“ICT” is an acronym for “Information and Communication Technology”) Information and Communication Technology infrastructure and the library personnel comprise two critical resources required for digital library projects. Actual requirements depend on nature of the digital library collection (one-off or live collection) and on factors such as volume of source material to be digitized, metadata requirements, document formats to be supported, search and retrieval expectations, and quality requirements. Hardware requirements include server computer for hosting the collection, desktop computers, digitization equipment, network connectivity, and other equipment. Digital library software is another critical technology component. Options include: Open source free digital library software, library automation software, commercial digital library software and in-house software development.

Keywords: ICT, Library Training, Information Technology, Internet, E-commerce

Introduction
The 21st Century has clearly shown that information provides unforeseen opportunities that enable multifaceted growth and development. Nobody can deny that the deployment of Information technologies have profoundly altered not only the way we live and work but also our reading fundamentally altering and redefining our outlook about information and its modes of dissemination. It is pertinent to underscore that learning is not merely information transmission. Experiences, the world over, have indicated the positive changes that information technology can have in providing services that ameliorate the conditions of the under privileged. It is increasingly felt that deploying the right technologies can go a long way in creating, nurturing human and social capital. Expanding knowledge has positive cascading effect by improving productivity, competitiveness, wealth and prosperity apart from improving the quality of services and their delivery systems. This paper will discuss problems, issues and solutions that may help in deploying information and communications technologies in library training and higher education. The paper argues that it is imperative for the librarian to become ‘digitally fluent’ rather than merely ‘digitally literate’

Library is dependent on life and change. Without the human and organizational changes that occur, the library would neither function properly nor meet its purposes. Dr. S.R. Ranganathan, the father of library and information science, formulated the five famous laws of library and information science. The fifth law- “Library is a growing organism” is now being challenged by the tremendous progress of ICT and its speedy application in all fields, especially in the field of library and information science.

Information and Communications Technology (ICT) is an umbrella term that includes all technologies for the manipulation and communication of information. The term is sometimes used in preference to Information Technology (IT), particularly in two communities: education and government. Although, in the common usage it is often assumed that ICT is synonymous with IT; ICT in fact encompasses any medium to record information (magnetic disk/tape, optical disks (CD/DVD), flash memory etc. and arguably also paper records); technology for broadcasting information - radio, television; and technology for communicating through voice and...
sound or images - microphone, camera, loudspeaker, telephone to cellular phones. Thus, “ICT” makes more explicit that technologies such as broadcasting and wireless mobile telecommunications are included.

It should be noted that “ICT” by this English definition is different in nuance and scope than under “ICT” in Japanese, which is more technical and narrow in scope. ICT capabilities vary widely from the sophistication of major western economies to lesser provision in the developing world. But the latter are catching up fast, often leapfrogging older generations of technology and developing new solutions that match their specific needs.

What is ICT?
The term “ICT” describes the use of computer-based technology and the Internet to make information and communication services available to a wide range of users. The term is used broadly to address a range of technologies, including telephones and emerging technology devices. Central to these is the Internet, which provides the mechanism for transporting data in a number of formats including text, images, sound, and video.

Objectives of ICT
- To provide greater and easier access information
- To allow access to computers and the internet for everybody, so that a divide does not build up between those who do not possess computers
- To assist people to develop their ICT skills for accessing information.
- To give access to digital learning materials, which are set to increase in both quality and quantity.
- To provide staff expertise to seek out information or learning materials-staff become skilled gatekeepers not just of printed sources but of the digitized ones too.

Advantages of ICT
Before embarking on an elaborate discussion of the issues involved in library training by deploying ICT, it is essential to understand the advantages of ICT in a Library situation. These advantages include:
- Opportunities to deploy innovative methodologies and to deploy more interesting material that creates an interest in the librarians;
- Enables better management of library a librarian thereby improving the productivity of the tutor as well as the taught;
- Enables the librarian to concentrate on other tasks such as research and consultancy;
- Enables optimum utilization and sharing of resources among institutions thereby reducing the costs of implementing ICT solutions.

Origin
The Internet in India started off in the late 1980’s when Education and Research Network (ERNET) was launched, with funding from the Department of Electronics (DOE), Government of India and UNDP. The project involved a number of premier institutions: the National Centre for Software Technology (NCST), Mumbai; the Indian Institute of Science (IISc), Bangalore; the five IIT and the DOE. The second major networking initiative was the National informatics Centre (NIC). For the ordinary citizens of India the Internet arrived in India on 15th August, when VSNL launched its services.

ICT Infrastructure for a Typical Digital Library Project
A digital library project would typically require following equipment:
1. Server Computer
2. Desktop Computer
3. Client Computer
4. Digitization Equipment
5. Network connectivity
6. Other equipment

ICT Components
ICT applications need effective information networking evenly distributed over the country and supported by personnel skilled in ICT. Major components of information infrastructure are:
- Electronic Communication Infrastructure
- Online information repositories
- Legal Framework
- ICT skilled workforce.

ICT in Libraries
The first and foremost ICT component, which can be adopted in the libraries, is the computer for library automation and to have an in-house database of library holdings in electronic form. As many primary journals and being published in CD form, it becomes necessary to equip the libraries to optimize the use of information. E-mail, online retrieval networking, multimedia and internet are the other important technologies, which can be used for faster access to information. ICT enables one:

a. To capture, store, manipulate, and distribute information;

b. To introduce and provide new services, revitalize the existing services by providing faster access to the resources, by overcoming the space and time barriers;

c. To provide need-based, (tailor made), browsing and retrospective search services to the users;
d. To have large number of databases in CDs;
e. To utilize the staff for providing better information services;
f. To develop/upgrade the abilities of professionals;
g. To encourage networking and resource sharing at local level;
h. To have access to a number of national and international journals which are being published only in machine readable form;
i. To digitize the documents for preservation and for space saving;
j. To support library functions such as circulation, serials control, acquisition control, stock maintenance and other routine office works and developing in-house database;
k. To retrieve and disseminate the information in user-defined format;
l. To access library catalogues databases of other libraries through library networks;
m. To improve the efficiency of library functions; and
n. To improve the cost effectiveness of library operations.

Thus the adoption of ICT should not be considered as a luxury, but as an added tool to provide the information services, effectively to fulfill the complex needs of the users.

Selection and Purchase of Library Automation Application Software

In India there are more than a dozen of library automation application softwares. The developers of these softwares include both government and private organizations. Some prominent softwares successfully installed in many universities are the following:

<table>
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<tr>
<th>S. No.</th>
<th>Name of Application Software</th>
<th>Name of the Organization/Institution</th>
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<tbody>
<tr>
<td>1.</td>
<td>LIBSYS</td>
<td>Libsys Corporation of India, New Delhi</td>
</tr>
<tr>
<td>2.</td>
<td>SOUL</td>
<td>INFLIBNET, Ahmedabad</td>
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<tr>
<td>3.</td>
<td>LIBMAN</td>
<td>R.S. Enterprise, New Delhi</td>
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<td>4.</td>
<td>TLMS</td>
<td>OPAC Infosys Pvt. Ltd., Pune</td>
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<td>5.</td>
<td>ALICE</td>
<td>Softlink Asia, New Delhi</td>
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<td>6.</td>
<td>BASIS PLUS &amp; TECHLIB</td>
<td>National….Informatics Centre, New Delhi</td>
</tr>
<tr>
<td>7.</td>
<td>DEL-WINDOWS</td>
<td>DELNET, New Delhi</td>
</tr>
<tr>
<td>8.</td>
<td>CDS/ISIS (Win.)</td>
<td>UNESCO, distributed by NISSAT, DST, New Delhi</td>
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</table>

While selecting the automation software it is important that it has all the modules required to carry out all routine works of the university library. It should also have Online Public Access Catalogue (OPAC) and UNICODE module for handling all the Indian and foreign languages other than English. Over and above, the software should be user friendly.

Suggestion

Based on the collected data some suggestions are put forward here for improvement.

i. The state of ICT application in India is at the minimum stage. So it is suggested that the concerned authority should give priority to improve the situation.

ii. Maximum number of computers with internet facility should be installed in libraries in order to make aware of the importance of ICT and importance of library in education.

iii. Computerization of all the activities of the libraries should be made so as to cope with the new challenges.

iv. More ICT services should be provided.

v. There should be extra regular power supply for computer users in order to keep time factor so that more intention will arise in the use of ICT facilities in the libraries.

vi. Lastly, adequate fund should be provided from the concerned authorities to improve ICT services.