Significance of Using Information and Communication Technology in Departmental Libraries

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What are ICT?

Information Communication Technologies

ICT are the hardware and software that enable society to create, collect, consolidate and communicate information in multimedia formats and for various purposes.
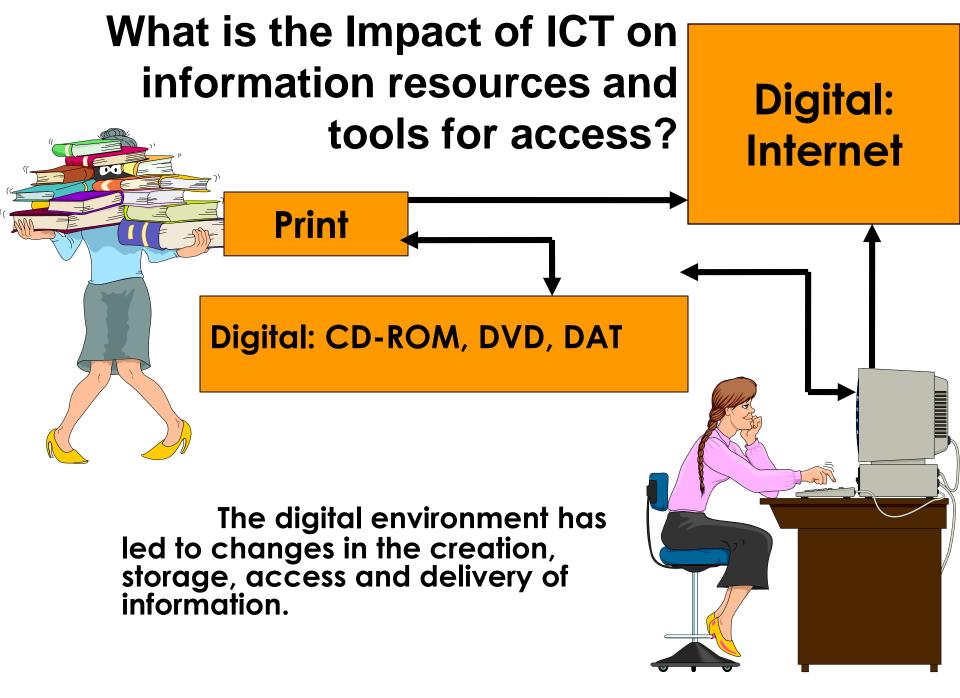
Impact of ICT in Libraries

•To capture, store, manipulate, and distribute information;
•To introduce and provide new services, revitalize the existing services by providing faster access to the resources, by overcoming the space and time barriers;
• To provide need-based, browsing and retrospective search services to the users;
• To have large number of databases in CDs and Online;
• To utilize the staff for providing better information services;
• To encourage networking and resource sharing at local level;
• To digitize the documents for preservation and for space Saving;

Impact of ICT in Libraries

•To support library functions such as circulation, serials control, acquisition control, stock maintenance and other routine office works and developing in-house database;
• To retrieve and disseminate the information in user defined format;
•To access library catalogues databases of other libraries through library networks;
•ICT made networking and sharing of information resources possible;
•Digital information may be free or cheaper than print equivalents
•Digital information can be sent in multiple copies simultaneously over information networks in fractions of a minute or even of a second.

What is the Impact of ICT on information resources and tools for access?

Print

Digital: Internet

Digital: CD-ROM, DVD, DAT

The digital environment has led to changes in the creation, storage, access and delivery of information.

Impact of ICT on the Library and the Librarian

•The digital information environment changed the way information is created, collected, consolidated, and communicated.

•Library services became automated and information services became electronic.

•Librarians had to learn new knowledge and skills in order to meet user needs for new information services using ICT and e-resources.

Library Services in a Digital Environment

- Automated library system
- Digitized Collections
- Services for e-onsite resources: CD-ROM, Own Digital Collections, e-journals on subscription, e-books , e-books on subscription
- Internet services
- Information services: SDI, Repackaging of information
- Resource sharing activities: Interlibrary loan, document delivery

Technologies in Libraries

- Information Capture
  - Key board, Scanner, Digital Cameras, Mobiles, Barcode Scanner, staff workstation, RFID Pad, etc.
- Storage
  - PCs, Floppy disks, CDs / DVDs, Pen drives, Portable HDs, Blu Ray Disk, etc.
- Identification
  - Barcode, RFID, Biometric, Tattle-tape, etc.

Technologies in Libraries…Cont.

- Digital Library Software
    - Green stone digital Library , DSpace, Fedora etc.
- Library automation packages
    - WIN/ISIS, Inmagic, Libsys, Libsuite, ALICE, LibraryWorld,
    - Open Source like KOHA, New Gen Lib, openbilio etc
- Networking
    - Client-server, P2P, Internet

Why ICT in Libraries?

- Speed
- Storage
- Accuracy
- Reliability
- Ease of use

Functions in ICT Based Library Systems

ICT is used in various fields of library activities.

- Acquisition
  - Acquisition/Accession list
  - Order file / report
- Serial Management
  - Serial check-in/out and claiming
  - Union/holding list
- Cataloging/classification
  - Catalogue card/label production
  - Online catalogue
  - Union

Functions in ICT Based Library Systems…cont.

- Circulation
  - Issuing
  - Interlibrary loan
  - Reservation
  - Over dues
- Management
  - Accounting/budgeting
  - Word processing / mailing
  - Scheduling/planning
  - Statistics/report

Functions in ICT Based Library Systems…cont.

- Information storage/retrieval
  - Database construction
  - Online database searching
  - Down loading/uploading
- Reference/Information services
  - Bibliographic listing
  - Library instruction
  - Public access

Advantages of ICT in Libraries

- Easily searching of information

- Time saving

- Speedily communication

- Helpful in stock verification

- Easily working with the help of automation

- Helpful in resource sharing

- It motivate to library staff

- Development of human resource

- The use of computer to carry out routine activities in the library for efficiency, cost effectiveness and increase performance

Advantages of ICT in Libraries

■ Library automation reduces the workload for library staff in terms of cataloguing, circulation and acquisitions.

■ This frees up time to provide a higher quality of service to library patrons.

■ The staff becomes available to answer reference questions, help people with research work and find information on request. With automation, finding library materials such as books and reference journals becomes easier and less time consuming.

Advantages of ICT in Libraries

- With the help of library automation, automated cataloguing standards, for example, machine readable cataloguing (MARC) help librarians to catalogue items quickly. It is possible to catalogue items for easy reference using vendor-supplied catalogues.

- Professional cataloguing with the use of scanning technology can be employed where barcodes on books can be scanned directly into the catalogue database.

- Automated cataloguing makes the task of keeping track of library materials that much easier. It also helps to quickly identify inventory stock when budgeting for new library materials.

ICT-Based User Services

- Web access to OPACs / Web OPAC

- Electronic document delivery (EDD)

- Networked information resources

- Delivery of information to users' desktops

- Online instruction

- Online readers advisory services

APPLICATION OF MOBILE TECHNOLOGY IN LIBRARY SCENARIO

SMS alert service

▸ Libraries might use SMS services in the following domains (M-Libraries, 2012).

▸ To send SMS to collect the requested books

▸ Reminding the user if, book is due in his/her account; informing user about the exact fine.

▸ Acknowledging the user about renewal of a book.

▸ OPAC service.

▸ Users may request the opening and closing hours of the library.

▸ ***Suggest a purchase***

Librarian can receive the suggestions from the users sent via mobile phones. In such cases users need not to visit the libraries and write the requirements in a register.

▸ ***Location of the library***

Users might be provided with virtual tours of the library sections and their services.

◦ For instance, Library of Congress provides an application prepared for the iPhone users which gives a virtual tour of Library of Congress that mirrors the main reading room, the great hall, the bible collection etc.

- ***Audio Tour***

  Libraries even can provide audio tour of a library. For example, University of Limerick library, Ireland provides audio guidelines to the library users (University of Limerick Library, 2012).

- ***New Title Preview***

  Mobile gadgets can be used to disseminate the information about newly acquired documents which are of irrespective of forms.

- ***Image Services***

  The Image Services in a library might offer a number of high quality, fee based photographic and document imaging services including digitized photographs, diagrams, maps, photos of places of national importance. .

▶ *Wi-fi - Internet Access*
  ◦ Mobile phones are available with 3G/4G facility.
  ◦ Libraries can offer wi-fi facility to access electronic information sources.

▶ *Catalogue search*

Library catalogue

Libraries can provide their catalogue on the mobile devices. University of Cambridge has made a provision to search the library catalogue from the mobile device. The service can be viewed by accessing the URL - http://www.lib.cam.ac.uk/mob/#menu.

Journal finder

Library Journal Finder provides access to full text journal, magazine, and newspaper content as well as links to titles held in print. For instance, American University library has providing option to search journals through mobile phones. The URL for this service is http://www.library.american.edu/mobile/get_article.html.

▸ *News and Events*

- ◦ Information on job openings, varieties of scholarly competition, library events such as orientations program, stock verification, book recall, lectures on special topic, news in relation to scholarly work, awards and so on can be given using mobile devices in order to update the user's knowledge
- ◦ Short messages regarding the library events and news can be sent to the users personally.

▸ *Reference service*

- ◦ Library users can ask librarians anything through the live chat and texting with mobiles. The reference services can be provided with the help of sending and receiving SMS. Immediate feedback is also possible from the user's side.

➢ **MOBILE BASED LIBRARY AND INFORMATION SERVICES:**

- User orientation programmes

- Upcoming Events

- Information literacy programs

- New Arrivals / Book Reservation

- Circulate significant circulars of library and institute

- Renewals notification alert

- Due and overdue documents messages

Pre-requisites to application of mobile service in libraries

▸ ***Mobile websites***

▸ ***Bulk SMS software***

▸ Bulk SMS have revolutionized the mass communication through mobile phones. Masses can be reached within 10 seconds with the bulk SMS.

▸ ***Bulk MMS software***

▸ Bulk MMS software allows you to send pictures, sounds clips, video clips and around 5,000 characters of text.

▸ ***Wi-fi for mobile phones***

▸ Secured wi-fi network should be established in the library. The control of the same can be handed over to the skilled library staff. Library users can get MAC address (Media Access Control Address) to access the wi-fi of the library, which acts as a unique identifier assigned to a network interface.

Social Networking Sits in Library

What is Social Media?

■Social media refers to online tools and services which allow an exchange of ideas, information, videos, pictures, and graphics — just about anything you can name.

■Social media also allows easy sharing and distribution of existing content to others so that professional work can be shared through networks.

Overview: Types of Social Media Services

- Bookmarking Sites and Social News Sites (Digg)
- Blogs and Microblogs (Twitter, Tumblr)
- Social Networking Sites (Facebook, Google+)
- Shopping Sites (Amazon)
- Multimedia Sharing (YouTube, Flickr)
- Virtual Worlds (World of Warcraft, Second Life)

SOCIAL NETWORKING Definition & Concept

■Social Networking is primarily Internet based tools for sharing and discussing information among human beings

Social Networking Sites

Purposes of Social Networking Sites Usage In Libraries

1. To reach a new audience of potential users.
2. To provide quick updates to users.
3. To build discussion groups and collaborative work.
4. Marketing specific adult programs and services.
5. Marketing specific children's and youth services programs.
6. To push library news and press release.
7. To modernize the library image and e-reputation.
8. Marketing of library product and services.
9. To spread news and service alerts.
10. for fund raising.

Social Networking Tools for Library Services

■**Wikis. (Wikipedia, Wikia) Interact by adding articles and editing existing articles.**

■**Social Networking. (Facebook, Hi5, Last.FM) Interact by adding friends, commenting on profiles, joining** groups and having discussions.

■**Social Photo and Video Sharing. (YouTube, Flickr) Interact by sharing photos or videos and commenting** on user submissions.

■**Social Bookmaking. (Del.icio.us, Blinklist, Simpy) Interact by tagging websites and searching through**
  websites bookmarked by other people.

■**Social News. (Digg, Propeller, Reddit) Interact by voting for articles and commenting on them.**

How Works Social Networking Sits in Library

■**Facebook:**

Most popular now because it is librarian- friendly, with many applications like JSTOR search, World Cat, and much more. Librarians can interact with users to know their information need. Libraries try to link some of these specialized library applications to Facebook.

MySpace:

In Academic institutions where the students are; libraries have taken advantage of this site post,calendar, custom catalog search tools, and blog features to improve their presence.

How Works Social Networking Sits in Library

■**Blogs:**
Here, librarians can periodically post messages; share information on a particular subject or issue, and allow users to contribute to content. They can write articles, news on topical issues and expect an instant reaction from their users.

■**Wikis:**
Is a free online encyclopedia that gives a background knowledge and definition of concepts it offers a platform for users to access, edit and contribute to content. This is a collaborative web page for developing web content.

How Works Social Networking Sits in Library

∎**LinkedIn:**

Librarians can get patrons connected with specialists in their particular field of interest via LinkedIn.Librarians can use this platform to render specialized services such as Selective Dissemination of Information (SDI).

∎**Twitter:**

A micro blogging application, to keep staff and patrons updated on daily activities, like frequently updated collections. Users can utilize this platform to type in short messages or status update. Librarians can use this platform to give users firsthand information on the on-going national elections. Users can send Messages on complaints or ask questions on a particular issue and get a feedback on the spot using twitter.

How Works Social Networking Sits in Library

■YouTube:
Events such as important highlights of inaugural lectures, conferences and workshops are disseminated via the YouTube.
■Flickr:
Librarians can use this tool to share and distribute new images of library collections. Cover page of new arrivals of both books and journals can be disseminated to users via Flickr.
■Library Thing:
A tool that enriches the library OPAC. Once an account is created, a list of books with ISBNs is sent to Library Thing which sends back a piece of code which is pasted into the footer of the Library OPAC.

Impact of ICT-Based User Services

•Provide speedy and easy access to information

•Provides remote access to users

•Provides access to unlimited information from

different sources

•Breakdown the distance barrier

•Ensure the right information to the right reader at the

right time

What will be the trends in the development of libraries?

The library will :

- be networked
- be stocked with a core collection that is multimedia
- have access to global information
- become digital
- become virtual