MODERN ACADEMIC LIBRARIES PROJECTS USING INTERNET AND WEB TECHNOLOGIES AND ICT RELATED SERVICES

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INTRODUCTION

Innovation is a significant concept in the present academic libraries particularly in the light of libraries' progressing advancement from acquiring books, journals and serials in print to providing access electronically, thus moving towards the virtual library and changing the extent of the library. Barely any associations can stay static in this data age which is described by a quick change in social, financial and political impacts, yet academic libraries must change so as to make a scope of services.

Library Services play a vital role in enhancing the quality of research environment. Innovative practices gives to the best solution to create new opportunities and affirmative effect on every organization missions. We all are leaving in an information age. Libraries are heart of every institution i.e. why they must invent new thoughts and methods to give best services to all type of users. Today, academic libraries have a very large and difficult role to play in order to play in order to meet a variety of demands of information and knowledge by for larger number of subjects at for higher prices and negligible gratis.

NATIONAL COMMISSION LIBRARIES:

A permanent, independent and financially autonomous National Commission on libraries shouldbeventrally set up by the Central Government as a statutory body to address all the information and learning need of the citizens of India. The role of libraries in providing widespread and inclusive access to knowledge is widely acknowledged. In today's context, libraries have to play two distinct roles -to serve as a local center of information and knowledge, and be a local gateway to national and global knowledge. In order to achieve this goal, existing libraries must modernize their collection, services and facilities, become more pro-active and collaborate with other institutions agencies and NGOs in order to develop a community based information system.

IMPORTANCE OF INNOVATION TO ACADEMIC LIBRARIES:

Experience has shown that innovation in the academic library environment is essential for effective library services delivery in the institutions of higher learning. Some of the advantages of innovation are identified as follows:

- It fosters ideal for products and services in the library.
- It gives librarians a sense of job satisfaction e.g. in reference services that the interaction with users is no longer centered on face to face or one-on-one; rather the librarian is involved in the search until the user is satisfied.

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- It encourages team walk and allows academic libraries to find competitive advantages in the information business market.
- Academic libraries who see and act upon the opportunities and possibilities for change through innovation in the current information business environment will survive; they will successfully compete and even flourish the face of emerging adverse information business market.

- Libraries will use innovation as a strategic systematic and technological level for developing agile innovative cultures, accountable information business management processes and global information industry systems.

For innovation to succeed in an academic library, it must be embraced by the top management and supported at all level of operations.

LIBRARY SERVICES IN COLLEGE LIBRARIES
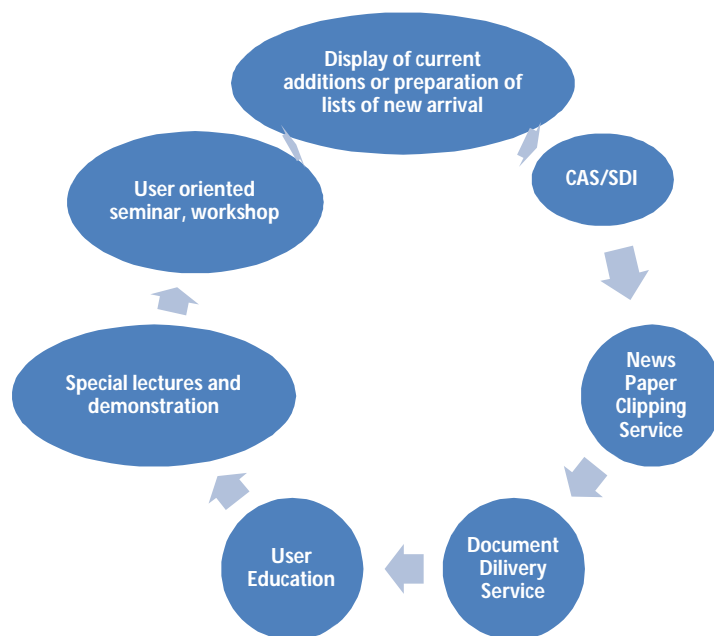
COLLABORATIVE LIBRARIANSHIP IN SOCIAL NETWORKING

Library is the most important aspect in any of the educational organizations. It should be the aim of librarians to play the role of trusted advisors to help academic users in higher education.

LIBRARY 2.0

"A model for the modernized type of library benefits that reflects progress inside the library world in the manner services is conveyed to clients."

- Services are continually refreshed and reconsidered to best serve library clients.
- Attempts to saddle library client in plan and execution of library benefits by empowering criticism and participation.
- The use of ideas and technologies of web 2.0 connected to the library administrations and accumulation is named as "Library 2.0."

WEB 2.0 –TOOLS AND TECHNIQUES

1. Wiki

A wiki is collaborative web pages that knows users to create and easily edit any number of

inter linked web pages using a traditional web browser (Achterman, 2006).

- Creating or editing, a wiki requires only basic computing knowledge \
- No programming knowledge at all
- ikipedia, the online encyclopedia is a great example of a wiki that is created and constantly developed by its users.

2. Blogs

A blog, an acronym for webblog, is an easier web publishing tools that allows to create and publish web pages with personal or and information to share with others. Blogs can be visited by local and global communities.

- Word press, Blogger, Lib Journal
- Becoming more integrated with "official" websites.

3. RSS

Stands for:

- Really Simple Syndication
- Rich Site Summary
- RDF Site Summary

RSS was originally developed by Netscape to distribute news, stories and information.

4. Mapping

- Google Maps, Palatial, Picasa etc.
- Create original maps unique to your library
- Reimage print maps in collection digitally
- Create mishaps by combining geographic tagging with photos

5. Instant Messaging

Instant Messaging or IM, inform of real time, virtuality instantaneous communication between two or more people using textual format.

- General Messaging Service: MSN Messenger, SKYPE and Google Talk
- Specialized Service: Trillion,

6. Podcasting

A podcast is a series of digital media files in sound or video format. It enables clients to distribute their sound and video chronicles on the web episodically and to download them through different gadgets including mobile phones, iPods, nee books, PCs, desktops, and similar handheld gadgets.

MOBILE LIBRARY SERVICES:

The number of mobile and smart phone users is drastically rising, so the demand for mobile library services is becoming stronger and more diversified. The rapid increase in the internet and mobile penetration are helping for library professionals to keep innovating newer ways of effectively reaching their targeted users and create relevant favorable relationship with them. Especially, in the college libraries because of teenage users, the demand for mobile based library services that provided is indispensable. The widespread mobile technology is emerging the need to integrate mobile library resources.

NEED TO USE OF MOBILE PHONES TO PROVIDE LIBRARY SERVICES

- The users need information but do not have sufficient time to visit libraries
- In changing information environment, librarians need to think about the range of services and methods to outreach the users to way out for managing change.
- Libraries in other countries of the world are successfully providing library services through mobiles phones

MOBILE ACCESS TO ELECTRONIC DATABASES

- Pubmed database: (http://pubmedhh.nlm.nih gov)
- Gale: (http://gale.cengage.com/AccessMyLibrary/)
- EBSCOhost: (http://www.ebscohost.com/academic/mobile-access)
- Science Direct Mobile: (http://www.info.sciverse.conm/scienceirect/mobile)
- ACS Mobile: (http://pubs.acs.org/page/tools/acsmobile/index.html)
- American Institute of Physics: (http://www.aip.org/press_release/iphoneApp.html)
- Oxford Journals: (http://www.oxfordjournals.org/mobile_websites.html)
- Taylor and Francis (http://www.tandfonline.com)
- Web of Science: (http://wokinfo.com/about/mobile/)

LIBRARY SERVICES THAT CAN BE PROVIDED TO USERS VIA MOBILE TECHNOLOGY ARE

- **SMS/E-mail Alert Services:** Libraries may give the cautions on current news, occasions and notification by means of SMS and E-mail to clients any place they may be go. The customer base can get advised in a split second with notice alarms, for example, cautions on carrying new books to the notice of clients for recommendation, insinuation of entry of indented archives by clients, illuminating accessibility regarding saved records for accumulation, assessing about late books, extraordinary fines, suggestions to return library things, restore books, library booklets, e-diaries bought in, change in timings, data about significant occasions, credit demand and so forth.
- Such alert notifications can be generated automatically using integrated library management system/ software. SMS/E-mail can be sent to group of users simultaneously through many free applications, and intermediary websites/ clients. Ex. Way2SMS.

- **Formal Education, Distance Learning and E-learning:** Users are very flexible in using their mobile phones and various mobile applications. Academic libraries can harness the benefit to lead implementation of library services through mobile devices to support distance learning, formal education, and research activities in learning environment by making the information resources ubiquitous. Library services should also blend with teaching and research practice of colleges/ universities, scientific community or other patrons whom they serve.

- **Database Browsing:** Libraries give access to a different assets and databases. The clients can simply enter search terms and get results that are planned explicitly for portable review. This administration incorporates OPAC (Online Public Access Catalog), Integrated Search, and Original Document Search. OCLC's World Cat Mobile application pilot enables clients to look for and discover books and different materials accessible in their nearby libraries through a web application they can access from a PDA or an advanced mobile phone.

- **My Library:** My library is a personal library space where users can find information and resources of their choosing. Clients can peruse alarms, check records, reestablish assets, demand things, track interlibrary advances and report conveyance demands, set up email notification of new books and diary articles, set up inclinations for inventory looking, and so on.

- **E-Resources with Mobile Interfaces:** A few publishers are as of now conveying digital books (both content and sound just as video) that are open by means of cell phones. It offers access to an assortment of

Databases and Digital Resources, for example, E-Books, E-Journals, Web Databases, Dissertations, Audio Books, Streaming Music, Films, Images and Article Databases which can be utilized on portable. These accumulations can either be downloaded from the library sites without anyone else cell phones or libraries loan cell phones with the accumulations as of now on them. A huge accumulation of book recordings both free-and membership-based administrations are accessible for download and furthermore transferable to cell phones.

Libraries can utilize interactive media informing administration (MMS) on cell phones to share photographs, recordings, and sound. The vast majority of the digital-book publishers give 24x7 gets to the library memberships from any web terminal inside the grounds, too on cell phones, for example, iPads, Android gadgets, and Kindle.

- **Library Guide:** Libraries can give clients the best of library direct data, for example, library FAQ, Question Answering Service, and Library Statistics conveying rich substance such that works best for clients. In the event that clients have questions and need to contact the curator for assistance, they can get a quick reaction from the library by means of the cell phone and locate the suitable data required.

- **Mobile Document Supply:** The mobile environment and technology present new opportunities for sending document requests and scanned images and monitoring the use of collections as well as the automation of administrative operations by the WhatsApp and using various applications. It can support Electronic Funds Transfer, Supply Chain Management, E-Marketing, Online Marketing, Online Transaction Processing, Electronic Data Interchange, and Automated Inventory Management Systems.

- **Text Reference Service:** On the off chance that the library gets a high volume of enquiries that require brief reactions, for example, word reference definitions, actualities or administration data then Librarians can give moment answers, and connections to articles/ references progressively.

- **Library Virtual/ Audio Tours:** Library Virtual/ Audio visits, guidance/ acceptance/ direction projects have been very critical in carrying the nonusers to libraries and furthermore help the remotely found or clients situated in various topographical areas. Library clients, who don't have time or tendency to go to an on-location workshop, can gain admittance to library visits on their cell phones. Sound/virtual library visits can be created decently fast, reasonably, and could lessen the measure of staff time spent helping new clients to situate themselves in the library and clarifying the offices accessible. It can without much of a stretch be given both as downloads from the library site and on cell phones.

- **QR Codes on Mobiles:** QR code stands for 'quick response', and basically two-dimensional bar codes that can contain any alphanumeric text and often used to store URLs, text, etc., known as 'mobile tagging'. Data can be translated into a QR code by any QR generator, many of which are available as free download. Users simply enter the data to be translated, and the generator produces the code, which can then be displayed electronically or in printed format. Decoding the information can be done with any mobile camera phone that has a QR reader, which is freely available online for most devices.

MOBILE SITE DEVELOPMENT TOOLS

While libraries can make their very own versatile destinations, there are likewise various administrations that make an interpretation of the site into a Mobile Friendly Interface by means of the utilization of CSS (Cascading Style Sheets) or ADR (Auto-Detect and Reformat Software) which enables a site to rework its control and route to suit the size of the screen it is being seen on. That way sites will look great on all sizes of screens including the prominent net books and libraries will be all around situated to satisfy the future need.

The Library websites (with or without OPACS) which are especially designed for viewing on mobile devices are as American University Library, Boston University Medical Center Mobile Library, Cambridge University Library, Cornell University Library, Duke University, Florida International University Libraries, London School of Economics (LSE) Library.

BENEFITS OF MOBILE LIBRARY SERVICE

- **Interaction:** The users can interact with library professionals, faculty and colleagues without restriction of time and place.
- **Flexibility:** The library users can actually access library resources and services at the places and time that they need it, Library users can directly download the notes, course reserves, e-books, research articles and other materials in to the mobile phones/ devices.
- **Enhances knowledge:** Content is adapting to meet user needs and delivered on demand.

DISADVANTAGES OF MOBILE LIBRARY SERVICE

- Limit of devices capacities such as small screens, memory size and computing power.

- Lack of common operating system and application programs like browsers.
- Wireless networks may down with a large no. of users when using it.
- Health hazards.

SOLUTIONS

Libraries should conduct analyses and make smart decisions, such as –

- Support staff training,
- Explore organizations
- New financing models,
- Ready to bargain with regards to their customary data conveyance models.
- Protect themselves from beguiling substance concurrences with outsider suppliers.
- Need the master learning of cell phones to move through the calling and not simply lie in the hands of late library school graduates.
- Tell clients about the a great many free portable prepared books accessible from such activities as Project Gutenberg
- Create chances to instruct staff, assemble neighborhood skill, and advance talk by offering instructional meetings and expert improvement choices.
- Build a strong establishment of information about versatile administrations inside the association.
- Host talks or discourse gatherings or incorporate such data in their sites, web journals, or bulletins.

As the utilization of portable innovation develops, library staff should learn and utilize the innovation to serve library clients where they are, and libraries will confront the board, financing, and preparing difficulties in gathering this need. Rather, master specialized information must stream all through the calling. *"as technology advances emboldened librarians hold the key."*

CONCLUSION

Libraries are changed in recent years to the reason of the development and application of latest technology especially the internet and web technologies and ICT related services. Such services can enhance the library services and best practices are effectively implemented in academic libraries. Enabled services it will be easy to library and users to get information immediately, to segregate information, to use multiple search words, to save cost, time and efforts of library staff and users, and remote access to information and difference databases.

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