

Mobile Based Library Services: Challenges and Suggestions

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1. Introduction

The development of Information and communication technology changed the information seeking behavior of users and shifted the applications in library from the traditional to automated library, digital archives stages, library 2.0 and mobile phone services. Nowadays there are lot of information products and services available on World Wide Web. The information seekers need not to come to the libraries to fulfill their information requirements. The mobile technology makes the information seekers to get information as remote and timeless access. It is a challenge to attract the users. Nowadays Libraries are functioning in a user centered, technology based atmosphere. The librarians should adopted mobile based to satisfy the information needs in a digital way.

There are some technologies that enable the user to have remote and timeless access. Nowadays Mobile phones have become the essential part of human life for communication and it also provides a modern platform to learners in e-learning. Nowadays, most of the information is available on internet. Information seeker can obtain relevance information via various search tools or information discovery tools with help of mobile devices, libraries can develop new services and provide faster access to its collection. The implication of mobile library services has created opportunities as well as challenges for academic libraries. . Library and Information Science (LIS) professionals are no more merely caretakers of books, it is necessary to use latest technologies to disseminate information and to attract modern users.

2. Mobile phones and library services

In the digital age the academic libraries have changed its services and housekeeping operations. Libraries have adopted new channels for dissemination of information, such as mobile phones, telephone lines and cellular networks and internet. Nowadays the academic libraries have been challenged in satisfying their user's dynamic information requirements, The World Wide Web (www) have made it possible to access of information requirements without going to the library. Like most of the institutions, academic libraries need to promote their products and services. From a marketing communications perspective, the challenge to most libraries is to attract users to the library and to retain them. Mobile phones and e-mail are important tools help the information seekers in what their need and what services or products provided by the institutions. The mobile phones enable the users to access and share information views.

3. Mobile Based Library Services

Introduction

In the age of information explosion, it is challenge to provide the necessary information to users at the right time. Mobile technologies have made communication and information access very convenient and timely to users from their own homes and office and from wherever they are on move with their cellular phones or PDAs (personal digital assistant

Libraries can provide a number of services to the users as mobile based library services:

1. **SMS alert service:** Through the text messaging librarians should alert the users for new book notice, appraising about which/when books are overdue, informing availability of reserved documents for collection e-journals subscribed, information about important events, change in timing, etc. Such alert notifications can be generated automatically using integrated library management system/software.
2. **New Title:** The library user may be informed about the new title accessed in the library via mobile messages.
3. **OPAC on Mobile phones:** Libraries can provide their catalog on the mobile devices. Libraries are required to interact with the software vendors to create mobile compatible WEBOPAC. For example OCLC's WorldCat Mobile application pilot allows users to search for and find books and other materials available in their local libraries through a web application they can access from a smart phone.
4. **Instant Messaging:** (IM) for Reference services Mobile devices can useful for instant answers like definitions, meanings and other information from digital libraries and web. While institution has its own IM network, library can also use web-based free instant messaging services from Google, whats app etc.
5. **Mobile applications:** Some libraries have developed mobile applications for smartphones. For example, Catch, EverNote, Inspiration Maps, EasyBib, ArticleSearch, AccessMyLibrary and LibAnywhere are some applications available for Android mobiles to access information such as articles, catalogs, notes, references, maps and user databases.
6. **Mobile library instruction:** Some libraries are offering library instructional materials and resources via mobile platforms. For example, East Carolina University's "Research First Aid" is a series of podcasts for library researchers.
7. **Mobile databases:** Some libraries provide database service to the users. For example, PubMed for Handhelds is a mobile web portal for the National Library of Medicine.

8. **News and Events:** Information on job openings, varieties of scholarly competition, library events such as orientation programs, 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 knowledge. Short messages regarding the library events and news can be sent to the users personally.
9. **Suggest a purchase:** Librarian can receive the suggestions from the users via mobile phones. In such cases users need not to visit the libraries and write the requirements in a register.
10. **Library Instructions and Virtual Tours:** The library users, who don't have time to attend on-site workshops, can get access to library tours on their mobile devices. Audio/virtual tours can be produced fairly quickly and it also can reduce staff time spent helping new users to orient themselves in the library and explaining the services provided by the library.
11. **In-house search:** Library and institutions provide access to their owned databases and resources. User should just enter search terms and can see results that are designed specifically for mobile viewing.
12. **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 example, American University library has providing option to search journals through mobile phones.
13. **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 side.
14. **Wi-Fi Internet Access:** Mobile phones are available with 3G facility. Libraries can offer wi-fi facility to users. Through the Wi-Fi library users can access all electronic publications within library campus.

4. Skills required

Librarians should adopt and apply the following skills if they desire to provide mobile-based services: Knowledge of hardware and software of mobile devices

- ❖ Create/tailor mobile-optimized content including interactive and participative library homepages, OPAC, virtual tours, and databases.
- ❖ Familiarity with internet/intranet services like using e-mail, SMS and spam preventing, etc.
- ❖ Develop expertise in protecting privacy and security levels as more personalized information is
- ❖ Involved in using mobiles for library services
- ❖ Skills related to searching and navigating through mobile devices, mobile web applications like push e-mail, etc.
- ❖ Skills for interacting with users via smart phone applications, mobile-friendly webpages, and third party intermediary clients
- ❖ Skills relating to training and user orientation to market these services to users.

5. Pre-requisites to application of mobile service in libraries

The libraries should have the following software and hardware to apply the mobile based library services:

- ❖ Secured Wi-Fi network should be established in the campus. 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 campus, which acts as a unique identifier assigned to a network interface.
- ❖ Mobile technology is unlikely to be able to supply the necessary service on its own, but needs to be integrated with digital technology. The following prerequisites were identified digitized information base
 - Information products designed for an e-platform
 - Electronic information service delivery
 - Design of electronic access systems.
- ❖ One needs to ensure that the customers having mobile phones of different network operators are in a position to avail the services.
- ❖ It is necessary to have a carefully planned requirement study to know the practical situation like, the kind of services to be provided on mobile devices and type of devices to be used.
- ❖ Library need to acquire the required hardware and software after market survey.
- ❖ Library must provide physical and virtual environment for using mobile devices and accessories.
- ❖ It is a prerequisite to optimize library OPAC, website, and databases for mobile devices and introduce new services wherever possible.
- ❖ Security and authentication is a matter of concern in mobile services particularly due to availability of web contents on a 24x7 basis to prevent damage or loss to the data.

6. Advantages of Mobile Based Information Services

The following are the advantages of Mobile Based Information Services. These are such as-

1. **Personalized service:** - Personalized service helps users to interact with library staff to seek specific information or reference away from library.
2. **User friendly-Aid:** - User-friendly Aid Familiarity with their own devices and technology helps the users in accessing information quickly and does not require orientation and training. Mobile users are using the facilities on mobile phones like SMS, instant messaging, web browsing, e-mail effortlessly to communicate. Most of these features are pre-installed on mobile devices or option for data plan packages.
3. **Ability to remote access information:-** Mobiles enables the users to remote access of information.
4. **Time saving:** - Time Saving Users need not record information about resources while browsing and searching library resources or wait at library transaction counter to renew/reserve books and hence the time of the user is saved.
5. **User participation:** - Libraries can enrich OPAC by allowing users to incorporate user created content like notes or images uploaded by users.
6. **Location awareness:-** Location Awareness Mobile communication enables libraries to offer location-

based services/content through global positioning system (GPS) capabilities. Libraries can guide the users to the location of specific document or service through maps and navigational tools.

7. **Limitless access**:- Information access from anywhere at any time will be of great help for users who cannot visit library in person and provides a constant link to required information resources.

7. Challenges & Suggestions

A very significant factor for the success of mobile technology-based library services is the technology which drives the service. Technology tends to influence the type and amount of content displayed. Currently, most mobile devices are limited by their speed and storage capacities. Another issue has to do with the design of the format. Not all contents on a desktop computer can be replicated on mobile platforms. A lot of reorganization of texts, images, graphics, tables and other features would have to be done in order for a document to be fit for access on mobile devices. Also, problems arise in the bid to separate the content of the library service from the format of the mobile device. Ideally, a mobile library should be device independent and should work on diverse mobile devices. It has also been realized that libraries often fail to distinguish the differences between designing to host services on a normal website and that of a smartphone interface leading to failure to yield the desired impact (Travis & Tay, 2011). It has however been established that in the mobile environment, what may be compatible or convenient in one library might not necessarily be the case in another library since the information needs of users differ.

Although mobile Technology holds great promise for library services, there are some limitations or barriers in providing library services such as-

- ❖ Reach of an external vendor into the digital collections and technologies – sustained access will be an extremely important issue for libraries if they adopt mobile Library technology and services that offer content from providers outside of the library.
- ❖ Some of digital content can only be accessed on certain devices, and this can have a "chilling effect" on learning and library service because it locks some people out.
- ❖ Lack of appropriate mobile-friendly academic content to meet learners' needs.
- ❖ difficulty in supplying content to an increasingly mobile student body
- ❖ Problems in finding and accessing the content needed for mobile learners from the Library perspective.
- ❖ The use of wireless devices is increasing rapidly, yet there is concern in the scientific community that this technology could have adverse side effects.
- ❖ Lack of staff awareness and familiarity- Setting up text alerts, for instance, requires technical expertise from staff who understand how the library management

system produces notifications, as well as staff or consultants who can help to set up an interface with a sim card modem or a suitable service in order to deliver those notifications as text alerts.

- ❖ Increasing staff reductions and other cutbacks.

Suggestions

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

- ❖ Support staff education,
- ❖ Explore partnerships
- ❖ New funding models,
- ❖ Ready to compromise when it comes to their traditional information delivery models,
- ❖ Protect themselves from deceptive content agreements with third party providers,
- ❖ Need the expert knowledge of mobile devices to flow through the profession and not just lie in the hands of recent library school graduates,
- ❖ Tell users about the thousands of free mobile-ready books available from such initiatives as Project Gutenberg,
- ❖ Create opportunities to educate staff, build local expertise, and promote discussion by offering training sessions and professional development options,
- ❖ Build a solid foundation of knowledge about mobile services within the organization.
- ❖ Host lectures or discussion groups or include such information in their websites, blogs, or newsletters,
- ❖ As the use of mobile technology grows, library staff will need to learn and use the technology to serve library users where they are, and libraries will face management, funding, and training challenges in meeting this need. Instead, expert technical knowledge must flow throughout the profession.

8. Conclusion

In the modern digital era there are number of mobile applications which can be used to access information easily in a faster way also provide remote access to the user in effective way. The user can access relevant information through mobiles based services such as instant messaging, news and events, library instructions, OPAC, references services. There are some issues with mobile based library services like speed, storage , design, display the content, difficulty in supplying , lack of appropriate mobile-friendly academic content to meet learners' needs lack of staff awareness. But there are some solutions to overcome these types of issues. Mobile based library services are effective way to attract the users and satisfy their information need in effective way. Librarians should provide mobile based information services to disseminate information and to attract the modern users. The mobile technology provides a modern platform to access information and to share information.

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