

Application of Mobile Technology in Library Services: A Review

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Abstract

Information activities are influenced by the technological innovations. Application of Information and Communication Technology in libraries is inevitable due to overproduction of information and library users also demand for new services. At this point of time, it is significant to use mobile technology in library and information centers. Due to the availability of mobile phones with everyone and the ease of reach, it has become a significant technology that a library can use. This paper reviews on the services offered by the libraries in which the mobile phones can be used effectively.

Keywords: Mobile Technology, Mobile Websites, OPAC, SMS Alert Service

1. Introduction

Mobile phones are compact electronic instrument, which are not only meant for oral communication. The cell phone is one of the most rapidly growing new technologies in the world (Rebello, 2010). The concept of traditional mobile phones, used to send SMS and to make call, have changed their appearance. The world has witnessed the overwhelming growth in the mobile use and it was estimated that the world has 6.5 billion mobile users by the end of 2012. The China and India are the leading countries of Asia where the mobile markets have the huge industries. India has 929.37 million mobile users as on 31st May, 2012 (mobiThinking, 2013). The number of telephone subscribers in India increased to 960.90 Million at the end of May, 2012 from 952.91 Million at the end of April 2012, thereby registering a growth rate of 0.84% (TRAI, 2012) The number of mobile internet users in India is expected to hit 165 million by March 2015, up from the present 87 million mobile surfers, according to a recent survey (Hindu, January 2, 2013).

In this scenario the mobile phones are playing a vital role in information communication. Advanced technologies make mobile phones as a companion of its users which satisfy the entertainment to educational purposes. Millions of mobile applications are available and can be downloaded from Google play, App Catalog, App store, Nokia store, Windows store and many more platforms. Desirable apps can be downloaded at free of cost from the websites of the mobile companies. Advanced mobile phones are using mobile applications, simply called as apps, such as games, e-book readers, route maps, word processing, marketing tools, translators, dictionaries, PC suites and so on. These applications are helpful to the mobile users in several ways. Eventually, mobile phones will be taking a more significant role in education as well.

The technological advancements in the mobile phones can be used effectively in the educational setup. Libraries are the part of educational system. They strive hard to support the direct education provided in universities and other educational institutions. "Library services are 'the bedrock' of education and training,

and increased emphasis on continual, self-directed learning poses a considerable challenge to libraries” (Peacock et al., 2008). Application of mobile technology in library services is the need of the hour. Libraries have to focus on assistance towards the students as well as teachers. Interaction with the user community can be achieved due to the advancement in mobile technology. Hence this paper discusses about the possible mobile phone based library services which are available at hand. Few libraries of reputation are using the mobile technology effectively. Those things are also discussed in this paper.

2. Mobile Technology and Library Services

2.1 SMS Alert Services

Libraries can always stay connected with the user community. Alerts services facilitates the libraries to transfer alert messages in relation to the modifications library rules and regulations, new arrivals, new services formed, due items, and academics at regular intervals. Users will be able to select activities or services offered by the library for which they wish to be informed. Contact information along with the mobile numbers is required. Mobile alert services notify the users in the event of library emergencies such as recall, cancellation of reserved items etc.

Following are possible ways to send SMS from libraries, [Kumar & Chitra, 2008]

- ◆ Few Library automation softwares provide option to send SMS alerts for reserved items, due items to users. For example, Libsys 0.7 version allows libraries to send SMS and emails to library users.
- ◆ Plug-ins integrated with library email system to enable email to SMS messaging.
- ◆ Outsourcing the contract to a vendor to send alert services. Many vendors in India offer their customer send bulk SMS. Also libraries can connect the service to a PHP, ASP, and .net code to send customized SMS through the library websites.
- ◆ 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:** Libraries have to collect indent from the users to develop the collection. Users can suggest the books or other information resources through SMS or emails via mobile phones. 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. The information on location of the library can be delivered to mobile phones with GPRS. Users can reach to the library location with the help of Google maps, which indicates the driving directions, street addresses of the library. 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 such a service to the users. It includes audio guidelines to the library users (University of Limerick Library, 2012).
- **New Title Preview:** Mobile gadgets can be used to disseminate the information about the newly acquired titles in the libraries. Patrons get informed of newly acquired documents which are of irrespective of forms. Library users preview the titles, thus, it is helpful to reserve the items if they need.
- **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. Thus, the libraries can disseminate the information in the image forms.
- **Research consultation and instruction:** It is a kind of customer care service. Research scholars often need scholarly information. Their need is specific. Library can solve their problem of information search. Research scholars may have an interaction with the library staff to get the consultation to access the scholarly information. Search strategies of the scholarly information can be taught to them via mobile phones. Proper instruction to them leads to the effective use of library collection.
- **Wi-fi - Internet Access:** Present day market is flooded with several mobile phones are available with 3G facility. They offer high speed Internet access 24X7. Libraries can offer wi-fi facility to access electronic information sources. The information can be downloaded and stored in PDF, DOC, PPT and HTML format in mobile phones. The use of the same is also easy due to the advancement in the technology.

2.2 Catalogue search

- ◆ **Library catalogue:** Libraries can provide their catalogue on the mobile devices. Very simple search interface can be provided here. Library users can search for electronic sources too. When the user provides keyword and clicks on search button the brief bibliographic record of the desired documents will appear on the mobile screen. Library users are provided with user ID and password to access the full text information. 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. By giving keywords and then by clicking the search link users can find articles on a topic or subject. 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. If, a user did not find the journal another link was provided to Washington Research Library Consortium (WRLC) which connects the users to Aladin Catalogue, where remote users can search and demand for library consortia (<https://www.aladin.wrlc.org/Z-WEB/Aladin?req=main>). This website is designed for mobile users.

2.3 News and Events

Traditional libraries maintain notice boards to provide updated information to the users. Notice boards contain information such as, 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. Libraries now can make effective use of mobile devices in order to update the user's knowledge regarding the above said events and news. Short messages regarding the library events and news can be sent to the users personally.

2.4 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. The reference services can be provided in the working hours of library

3. Pre-requisites to Application of Mobile Service in Libraries

- ◆ **Mobile Websites:** Several studies have shown that students at various levels use mobile phones (ITU, 2004; Geary, 2008; Zulkefly and Baharudin, 2009; Galvin and Sun, 2011; Hakoama and Hakoyama, 2011). Due to the compact display and less storage space, mobile phones take much time to load the well designed webpages. Therefore, it is essential to a library to design separate website for mobile users. Library websites for mobile users should use certain tools such as, site layout tools, custom domain name, Interactive interface, community features, library locator tools, maps, driving directions, image collections, videos, custom content, and even searchable mobile catalogs. And the website developed should be cost effective.
- ◆ **Bulk SMS Software:** Bulk SMS have revolutionized the mass communication through mobile phones. Masses can be reached within 10 seconds with the bulk SMS. It is a cost effective mode of information communication to the larger groups. Several companies offer bulk SMS service. SMSChilly, MySMSmantra, Solutionsinfini, boomadcom, mvaayoo and many are the bulk SMS service providers available in India.
- ◆ **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 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.

4. Conclusion

Mobile phones are inevitable tools for information communication. Human beings in a society use mobile phone to communicate thoughts, facts, conversations, in general, information. The dissemination of processed information is a common factor in a civilized society. This short review shows that several organizations such as libraries, documentations centers involved in this process. Libraries especially use several tools and techniques to circulate the information to the user community. At the same time, libraries should be advertised. For this purpose the use of technology is very essential. Mobile technology has become boon to the libraries. A library may reach the remote users effectively by adopting of mobile technology in its services.

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