



## **MOBILE APPLICATIONS: INNOVATIVE TECHNOLOGY AND SERVICES IN LIBRARIES**

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**Abstract-** The mobile applications have changed the way one connects and interacts with the world and mobile library services can meet people's needs for information in a fast-paced society. The objective of this paper is to show the major library and information services provided by using mobile technology to satisfy the information needs of users. Presently mobile phones are becoming an integral part of everyday life and are changing the way one connects and interacts with the world. In this changing scenario, Mobile Technology will be of great help to libraries towards strengthening their relationship and providing enhanced user oriented services to existing users. Mobile learning is the ability to obtain or provide educational content on personal pocket devices such as PDAs, smart phones and mobile phones. Educational content refers to digital learning assets which included any form of content refer to digital learning assets which included any form of content or media made available on a personal device. This paper describes mobile technology applications in library services.

### I. INTRODUCTION

Information and communication technologies (ICT) have provided faster access to information and it is also challenging the libraries to rethink and remodel their services adopting the technological changes. Implementation and relevance of Information and Communication Technologies (ICTs) have not only changed the way to user access information, but has also given birth to the new channels of communication. Innovation of mobile phones is a vital achievement of technological developments.

With the development of information technology, mobile phones are gaining popularity quickly in recent years and become indispensable in people's everyday life. People who visited libraries to find specific pieces of information in the past are now able to find that information online. The vast majority of people with specific information need no longer visit libraries. But their need for information is still there and is expanding. The libraries will need to be designed to accommodate the changing needs of its readers. Mobile library services can meet people's needs for information in a fast-paced society. They are an extension of digital library in the mobile communication network. Digital library and mobile communication technology has laid solid foundation for the development of mobile library services.

Mobile applications for information seeker too have grown up tremendously with the growth of technology. Before the advent of Information and Communication Technologies (ICTs), communication in the library was done through books, newspapers, microforms, slides, etc. As scientific knowledge increased, electronic communication systems began to develop. The use of telephones and computers led to the Internet. The application of telecommunications to an automated library system can bring more efficiency to library services. The Global System for Mobile Communication (GSM) has revolutionized the daily lives of individuals, it can also enhance library operations.

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## II. MOBILE PHONE FOR LIBRARY SERVICES

Mobile technology has become boon to the libraries. A library may reach the remote users effectively by adopting of mobile apps and mobile technology in its services. 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. Mobile technology is fast becoming the preferred method for connecting to the internet, especially for people on the go. Library professionals must keep pace with this trend and integrate themselves into the mobile realm if they wish to deliver enhanced user services.

Many academic libraries have already taken the lead in developing their own applications, and “the library in your Smartphone” is within reach for libraries. Library catalogs, user accounts, reference services, and website content are increasingly accessible via mobile phones.

Mobile Technology has now come up with “Libraries in Hand” trend. Our librarians are in move to determine how these devices are affecting information access and ensure that they are communicating with patrons and providing web content in the most appropriate and effective ways. Our Librarians must be prepared to take this challenge and put his efforts to increase the market and demand for mobile access to personalized facts and information anytime, anywhere on one’s own handheld device.

Libraries today are covering most of the technologies given by mobile industry like PDA’s , Blackberry, iPod, Cellphones, UM PC’s (Ultra Mobile PC) and mobilising library contents in a portable form suitable for small screen and delivering short services in the form of contents/ information with device’s multiple searching

The most important mobile services are:

### *2.1 Voice service*

It was the first service in mobile terminals. It is mainly used for communication between people and it is the main service mobile. This service justifies the possession of a terminal.

### *2.2 Short Message Service / Text messaging*

This service allows sending text between mobile terminals with a maximum of 160 characters. Despite being short text messages, the service is the most popular in the history of mobile telephony. Text messaging is accessible these days to practically anyone, for relatively low costs, so it is an easy way to get into providing a mobile friendly service for a library. Perhaps the easiest service for a typical library of any sector to introduce is a 'text a librarian' service. This is simply allowing members of your library to text a question, alongside all the other ways your reference service may be accessible. It can be as easy as putting a cheap pay-as-you-go mobile phone in the drawer of your main enquiry desk.

### *2.3 Multimedia Service*

Much of current mobile phones can store and send ring tones, logos, photographs, graphics or music. They have become small multimedia consoles. Multimedia message service is not as popular as SMS. On the one hand because all terminals have not available this service and on the other hand because they have a high price.

### *2.4 Mobile OPAC*

Traditionally the Online Public Access Catalogues (OPACs) served as the binding wine between the user and the library collection. With the advent of mobile services, new Mobile based OPACs are being developed for mobile users in various libraries. Development of mobile optimized OPACs nicely cater for both the regular desktop OPAC users and mobile OPAC users. The biggest challenge in this endeavor is to scale the information display into the mobile optimized output. Sometimes it is very difficult since most of the library catalogues make use of the web 2.0 advancements and use lot of content enrichment and other allied services to their regular catalogues which will be very difficult to scale for the mobile phones.

### *2.5 Data service*

The last generation of mobiles has the possibility of Internet connection. So, this connection can be the base to others services. For example e-mail in a terminal and Web browsing are now two of the main applications of data service and it is expected to grow in the future.

### 2.6 Digital Collections

Libraries are moving forward in providing access to digital collections via mobile devices. No longer do visitors have to visit a library to find a computer with internet access. Now they can experience digital collections in the palm of their hand through a mobile phone.

### 2.7 Medical Library Applications

Medical libraries were among the first to adapt to and offer services via mobile devices as early as 2000. PubMed on Tap is an iPhone/iTouch application that allows patrons to search PubMed on a mobile device. Users can even access and order full-text articles. A number of publishers have begun releasing medical textbooks especially for use on mobile devices.

### 2.8 Audio books

Digital audio books continue to grow in popularity. It is difficult to believe that the service was initially offered in libraries only as recently as 2005. Recently, most mobile devices did not have the memory needed to house huge audio book files. As mobile devices have increased storage and memory. The number of phones and other devices that can now accommodate audio files continues to increase. Audio book vendors now offer downloadable audio books compatible with the iPod. Play away offers libraries the opportunity to loan out audio books on a portable player so an individual does not have to have a computer or even own a mobile device.

### 2.9 Electronic textbooks:

E-readers and tablets have new features that allow students to highlight and add annotations to the text, just as they would with paper texts. They give students the capability to link to additional information.

### 2.10 E-resources with Mobile Interfaces

Some publishers are already delivering e-books are accessible via mobile phones. It offers access to a variety of databases and digital resources such as e-Books, e-Journals, Web databases, dissertations, audio books, films, images and article databases which can be used on mobile phones. These collections can either be downloaded from the library websites on user's own mobile devices or libraries lend mobile devices with the collections already on them. A large collection of audio books both free and online subscription based services are available for download and also transferable to mobile phones. Libraries can make use of multimedia messaging service (MMS) on mobile phones to share photos, videos, and audio.

### 3 Future Potentials of Mobile Application in Libraries

The mobile applications have changed the way one connects and interacts with the world and mobile library services can meet people's needs for information in a fast-paced society. Mobile learning is the ability to obtain or provide educational content on personal pocket devices such as PDAs, smart phones and mobile phones. More and more changes are expected within four to five years in the field of mobile technology and its application to the libraries, the day is not far when we will use phone to read barcodes or RFIDs in the library and OPACs will develop GIS sensitivity and be able to communicate with users through their mobiles for holds, fines, late notices, alerts, etc.

### Conclusion

The mobile application has changed the way one connects and interacts with the world and mobile library services can meet people's needs for information in a fast-paced society. Libraries are moving forward in providing access to digital collections via mobile phones. In the near future, more and more people will be able to experience digital collections in the palm of their hand through a smart phone with Applications.

Mobile library services are an integration of tradition library service and mobile communication technology, from which readers can enjoy library services anywhere and anytime. Since a majority of library users own a mobile phone, incorporating it into library services will promote a good relationship between library users and staff and enhance library services, which will attract and retain users. A mobile website of a few pages can be created quite easily. Most existing mobile library sites have a similar set of links to quick information – hours, news, mobile catalogue, workshops/programs, and contact information. Phone numbers are particularly relevant on mobile pages, as they can be made into links that when clicked automatically place the call. The increasing pervasiveness of

mobile devices with internet access promises an exciting time for libraries as we adapt and extend existing services to these devices and explore opportunities for innovative new services.

#### REFERENCES

- [1] Santha kumar R. Mobile Phones: A New Dimension in Library Services, *International Journal of Library Science*, 2013, 7(1): 39-46
- [2] Stahr, Beth (2009), "SMS library reference service options" *Library Hi Tech News*, Number 3 / 4: pp.13-15.
- [3] Hanson, C. (March 2011). Libraries and mobile services [Special issue]. *Library Technology Reports*, 47(2).
- [4] Kroski, E. (2008), "On the move with the mobile web: libraries and mobile technologies", *Library Technology Report*, Vol. 44 No. 5, p. 38.