



Full Length Research Article

MOBILE TECHNOLOGY BASED INFORMATION SERVICES IN THE DIGITAL WORLD

^{1,*}Hiremath, B. K. and ²Anand Y. Kenchakkanavar

¹JSS Academy of Technical Education, Noida (U.P), India

²Department of Studies in Library and Information Science, Karnatak University, Dharwad,
Karnataka, India

ARTICLE INFO

Article History:

Received 16th June, 2015
Received in revised form
22nd July, 2015
Accepted 19th August, 2015
Published online 30th September, 2015

Key words:

Mobile,
Bluetooth,
Instant Messaging,
Academic library and Library services.

ABSTRACT

This paper is focusing to the potential of mobile devices in library and Information centres. Present day we are living in virtual world. In this twenty first century Library and information science professional's essentially to use mobile technology in libraries and this new technology offering outreach technical options for librarians. Libraries have the well opportunity to extend new different types of library services to users. This study is a new platform for reaching students and staff members. The main purpose of this study mobile technology use in higher education generally and particularly effective utilize in libraries and library services.

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INTRODUCTION

This paper will examine trends and developments for mobile technology and will discuss what impact they may have on the features of library. In the past few decades, Mobile technology has been more widely and rapidly accepted than any other technology. Several technological modify have appeared gradually and their impact on higher education has been incremental. The library and information services are rapidly changing and development in the twenty first century and digital technology has made it more easy, immediately and comfortable to affect the stored library (Kenchakkanavar, 2014). The present new technology has significance to libraries in attractive the quality of library services and to connect with their users. Indian people are using internet According to Rajan Anandan, MD, Google (India) there are 243 Million internet users in India. According to 'Digitalinsights' Indians are very dynamic because 946 Million peoples are connected Mobile connections and 100 million activated mobile through social accounts. Mobile phones are more frequent and are increasingly starting to look like computers and a number of different phones are include messaging platform (Davis, 2012).

Mobile phone is most effective communication tool device it has undergone several changes to making its functionalities exceeding the traditional voice communication among two persons (Kushchu, 2007). Mobile technologies are new communication tools and these are transforming how people can search the information, receive the information and interact with the information on every day basis. These mobile phone tools offer convenient access to the world information, across borders of subject, discipline and organization. In present day developed countries are using lack of access to affordable Internet. In recognition of this role, grants and policy initiatives around the world have targeted libraries as a community resource that can provide access to and sustain for the informational resources presented by the Internet (Thompson *et al.*, 2014).

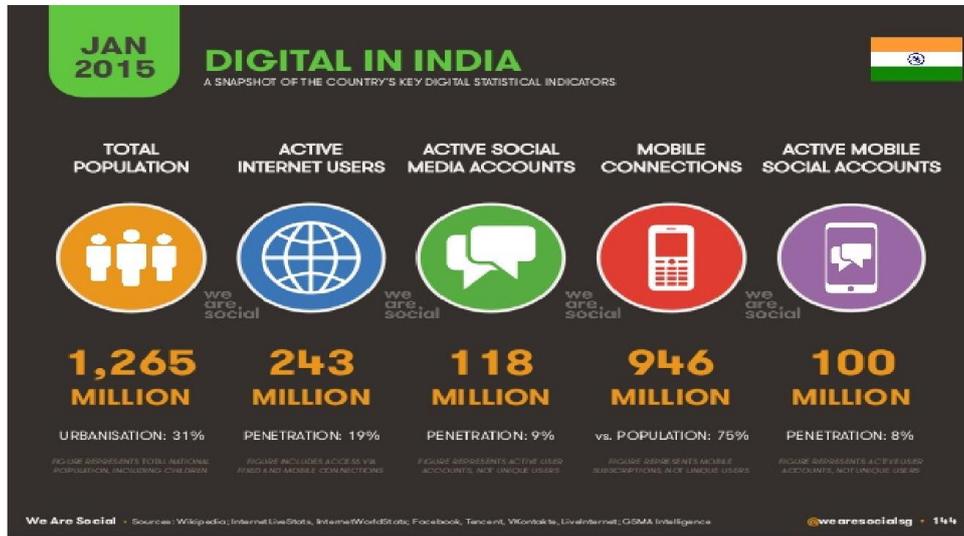
Several libraries sense this mobile technology development and start to consider on methods of providing new services by using mobile technology. Mobile technology offers new services of library means that a library operates mobile technology to permit to readers viewing, searching and obtaining library services without being limited by time and place (Chang, 2013). OCLC in recent times released a mobile searching platform to its popular Worldcat.org (www.worldcat.org/m) service.

***Corresponding author: Hiremath, B. K.,**
JSS Academy of Technical Education, Noida (U.P), India.

This service is a joint venture among OCLC and Boopsie (www.boopsie.com/home/), a company that affords mobile web search services for a multiplicity of sites, including Wikipedia and Google. (Cummings, Merrill and Borrelli, 2010)

Literature review

There are many recent studies showing libraries that are providing mobile based services and are experimenting with new ways to utilize this technology.



Source: <https://www.techinasia.com/india-web-mobile-data-jan-2015/>

Figure 1. Internet and Social Media Users in India (2015)

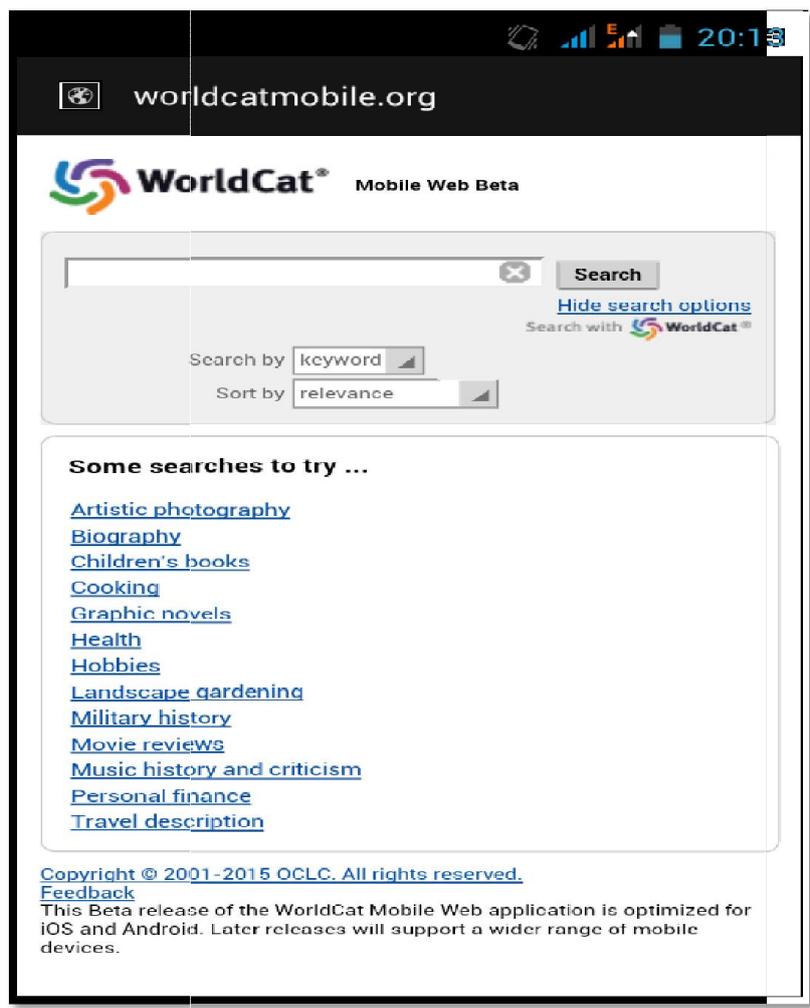


Figure 2. WorldCat mobile version

(Hey *et al.*, 2012) defines that the possible of new developments in mobile technology, with anytime, anywhere wireless access to digital libraries outside the classroom. (Choi, 2009) presents in his paper that the application of mobile technology in South Korean libraries and recommended areas for future development. Mobile phone technology through services to libraries which are now considered conventional include access to the online catalogue, users suggested apps, downloadable e-books, audio materials, access to databases, text notifications and text reference (Kroski, 2008).

Recently Huang and (Chiu, 2014), conducted study he defines that the popularization of 3G and 4G software development and hardware equipment's led to the explosive increase of mobile technology users. As the effect, many students and teaching staff members utilize tablet PCs or mobile phones to studying e-books and e-journals. E-resources and mobile technologies are important channel to obtain information. The Technical University of Catalonia librarians mentioned convenience and perceived helpfulness by students as the reason to include 'ask-a-librarian' services in the first iteration of their mobile app (Vila *et al.*, 2010). Parsons (2010) argues that the mobile technology has become an important information collecting channel. A number of students and teachers also use tablet PCs and Smartphone to search for e-journals, e-books and other e-resources. In general, library mobile application functions integrated library notices, search function for lists of books, e-journals or e-resources. Library mobile applications can permit all type of users to search, bookmarks, links, and highlight content from scripture, general conference talks, lesson manuals, and other curriculum on mobile devices.

With help of Bluetooth we can transfer files one mobile to another mobile Bluetooth used in mobile phones and headsets to hear monitors and medical equipments.

Cameras: It allows you to capture good quality photos whenever you required. With help mobile cameras' click the photo wherever you can and save to the memory card. Cameras make the moment more memorable forever.

FM Radio: many national and international programs are being relayed directly through FM radio signals. FM application of mobile has made more users friendly to listen live and exclusively. This application now days added program recording option which can be used record the programs of more importance.

Email: email application of mobile has already use of computer systems to check the emails and send the emails to the concerned person at single click. It helps to send information as early as possible at its urgent requirements.

GPS: Global positioning system is one of the advance applications in smart phones it help to find out exact location of the place we required and help us to drive to the exact location without any problems.

SMS: Short massing service famously known as SMS, which enables us to send text information directly to the mobile of desired persons and which has made easy for sending personnel information on urgent basis.

MMS: multimedia messaging service is used to send the information related to images, audios and videos directly to the mobile of required persons.

List of few mobile technology use in libraries and information centers

SI No	Name of the Library	Descriptive	URL Address
1	The New York Public Library	It provides online public access Catalogue (OPACs) and databases.	http://m.nypl.org
2	Adelphi University Libraries	Offers library staff members contact information, library timings and a link to the library blog etc...	http://m.adelphi.edu/library/
3	Duke University	This university produced a free iPhone application called DukeMobile, containing information on digital library resources.	http://itunes.apple.com/app/dukemobile/id306796270?mt=8
4	Albertsons Library, Boise State University	It offers simple text navigation and it provides library details ex: study room, computer sections, Book call numbers shelving list etc...	http://library.boisestate.edu/m
5	East Carolina University	This university provides library instructional materials and resources via mobile phones.	www.ecu.edu/cs-dhs/laupuslibrary/researchfirstaid.cfm
6	Virginia Tech University Library	It offers library timings, library catalogue search and library location etc.,	http://m.lib.vt.edu/
7	North Carolina State University Library	This university effective layout provides group finders and a main feature is to view the number of available computers in library for the students.	http://lib.ncsu.edu/m/home/?browse=iphone
8	PENNLibraries, University of Pennsylvania	This university offer users to search databases, library video clips etc..., information's are provided.	http://www.library.upenn.edu/m/
9	Worldcat	It offers library catalogue search with author wise and	http://worldcatmobile.org

Features of mobile phone

Features of mobile phone playing a key role in this modern era, features of mobile phone are as follows;

Bluetooth: Bluetooth technology is wireless communication system defined to replace the cables connecting many types of devices.

Other Features: Mobile applications may also include audio and video playing application which can be used for entertainment purpose. Contact applications enable us to save the contact details of required person could be used instantly whenever you it is required. Audio recording application has

made us to save the audio and voices of important talk's technical seminars.

Video recording application of mobile has made video cameras and digital cameras obsolete. Gaming application has been used for entertainment purpose and Internet explorer application has made people less dependent on computer systems and enables us to get complete usage of internet with this application.

Mobile based library services

Text message alerts is an entry-level mobile web service for a library to presents its users quick news information, library event reminders, and other requested information. The following mobile based library services are truly remarkable to consider the kinds of activities. Mobile technology through web users are presently engaged have been identified into the following categories.

- Library text messaging or short messaging service (SMS).
- OPAC on mobile phone.
- E-mail, Sending and receiving e-mail messaging.
- Searching databases of scholarly information.
- Reading or listening to books and articles.
- Due-day reminder and renewal-request services.
- Preview and reservation service of new titles.
- New title preview and reservation service.
- Voice and video calling.
- Multimedia messaging service (MMS).
- Online in-house library bulletins.
- Helpdesk services/Ask-a-librarian.
- Online textbooks, databases and useful resources links.
- Frequently Asked Question (FAQ).
- Providing links to Internet Resources
- Document delivery services information.
- Online current awareness services.
- Online reference tools.
- Online list of new arrivals.
- Alert services for new adding resources and etc.,

Conclusion

This present study highlighted on the mobile technology through information services offered by libraries. Recently, many large public and academic libraries have also using digital technology and mobile technology based providing libraries and information services. Now days many people accessing the Internet from their mobile phones, libraries have started investigating ways to deliver their services to mobile phones and other small-screen devices so that their patrons can access them anytime and anywhere (Mills, 2009). The mobile technological communication that maintains mobile libraries will continue to expand and increase access to information around the globe (Fernandez, 2015). Mobile technology embraces large secure for enabling libraries to offer enhanced services in a form users more and more demanding. The utilizing of mobile phone is useful to access the Internet and searching new information.

Finally, mobile phone technology has been viewed to be able and offer several outlooks for library. The paper concludes that can make easy the understanding of user performance in mobile phone and to provide improved and attractive mobile based library and information services.

REFERENCES

- Chang, C.C. 2013. Library mobile applications in university libraries. *Library Hi Tech.*, 31(3), 478-492.
- Choi, W. 2009. Development and application of mobile technology in South Korean libraries. *Libri*, 59(1), 14-22.
- Cummings, J., Merrill, A. and Borrelli, S. 2010. The use of handheld mobile devices: their impact and implications for library services. *Library Hi Tech*, 28(1), 22 – 40.
- Davis, M.R. 2012. AFRICA: mobile devices address equity issues. *Education Week*, 31(19), S6-S8.
- Fernandez, P. 2015. Through the looking glass: envisioning new library technologies, mobile libraries, beyond the Web site. *Library Hi Tech News*, 32 (3), 5 – 8.
- Hey, J., Sandhu, J.S., Newman, C., Hsu, J.-S., Daniels, C., Datta, E. and Agogino, A. M. 2007. Designing mobile digital library services for pre-engineering and technology literacy. *International Journal of Engineering Education*, 23(3), 441-453.
- http://www.palojono.com/papers/Hey_et_al_mob_dig_lib_IJE_E_2007.pdf
- Huang, Y.M. and Chiu, P.S. 2015. The effectiveness of a meaningful learning-based evaluation model for context-aware mobile learning. *British Journal of Educational Technology*, 46 (2), 437-447.
- Kenchakkanavar, A. Y. 2014. Types of e-resources and its utilities in library. *International Journal of Information Sources and Services*, 1(4), 98-104.
- Kroski, E. 2008. Libraries to go: mobile tech in libraries. Available at: www.slideshare.net/ellyssa/libraries-to-go-mobile-tech-in-libraries-presentation (accessed 6 May 2015).
- Kushchu, I. 2007. "Positive contributions of mobile phones to society", available at: http://www.kiwanja.net/database/document/report_positive_impact.pdf (accessed August 17, 2015).
- Mills, K. 2009. M-Libraries: information on the move. *Report from the Acadia Programme*, available at: http://arcadiaproject.lib.cam.ac.uk/docs/M-Libraries_report.pdf (accessed 3 August 2015), 1-14.
- Parsons, G. 2010. Information provision for HE distance learners using mobile devices. *The Electronic Library*, 28(2), 231-244.
- Thompson, K.M., Jaeger, P.T. and Taylor, N.G. 2014. Digital Literacy and Digital Inclusion: Information Policy and the Public Library, Rowman & Littlefield Publishers, Lanham, MD. 144-145 DOI:10.1080/1941126X.2015.1029789
- Vila, M., Galvez, A. and Campos, J. 2010. Mobile services in the Rector Gabriel Ferrate library, technical university of Catalonia. *Reference Services Review*, 38(2) 321-334.
