

AN INTRODUCTION TO MOBILE APPLICATIONS IN LIBRARY

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Abstract: - Overview of developments in mobile tools and library apps, such as Internet Mobile, Mobile Gaming, SMS / texting, etc. Examines mobile search providers and future applications for librarians and information seekers. Analyzes the current usage of mobile devices, offers an overview of devices, vendors, and features, explains the different activities that these devices support for good library usage, reflects on how libraries and our librarians respond to programmes designed for these devices, and what libraries can do in this regard in the future.

Keywords : Mobile Application, Electronic Resources, etc.

1. Introduction:

For people who are busy with their work, learning to use mobile technologies such as mobile phones / smart phones, iPhones, PDAs, iPod is particularly beneficial, and those jobs require them to move continuously. But, with the growth of technology, mobile applications for information seekers have also grown tremendously. With this wireless technology, everyone from kids to adults finds their piece of data. In this respect, various studies have been carried out and there have been unexpected results that show that people today use this handheld device for text messaging, photo messaging, internet access from their mobile phones, e-mail, and do so many interactive activities with

different features of the handsets. In the records we found that in the year 2007, the mobile phones were used a lot by the 18-24 age group in the United States, which is definitely students, scholars, working class who need this kind of devices that educate them in the environment of 'Move and learn'. In the mid-2008 nationwide study (ABI Research) on mobile phone users overall, 75 percent of adults and 90 percent of college students report having mobile phones and 62 percent of subscribers regularly use text messaging. Now, landline phones are not in use anymore [1].

2. Devices in the markets

The devices in market today (Mobile phone/smart phone, PDA, iPhone, iPod - 2008 coverage) include the following:

- Treo 750
- RIM Blackberry storm
- RIM Blackberry Bold
- Sony play station portable
- M300
- LG OZ
- Kindle (Amazon's)
- Samsung ultra smart F700
- Samsung ultra Q
- Samsung B5200
- Samsung B470
- Apple's iPhone
- Apple's iPod touch
- Verizon voyager
- HTC S710
- Vivo N-series
- Oppo series

HTC'S Dream(Development phase with Google's open software Operating System Android) Obviously they are in market with their special features storage capacity and soft wares other technologies according to their Prices but latest research describes, the most desirable in the smartphone/iPhone category are [2]:

- Vivo N-series
- RIM Blackberry storm
- RIM Blackberry bold
- HTC G1(Android)
- Apple iphone4G

➤ Sprint Instinct

The BlackBerry Storm and TMobile's G1 running Google Android are recent additions, but now it's Vivo 's turn to get into this act: the N-SERIES. Vivo announced that its high-end N-SERIES 4 G smartphone combines a 3.5-inch tilted touchscreen, a full QWERTY keyboard, and a straight-up comparison with the trend-setting iPhone from Apple. Multimodal interaction such as visual access, voice interactions, gesture interaction, various searches such as location-based searches, information search, Multimedia (audio, video, graphics, digital content, etc.) downloads and its other built-in capabilities allows for normal features of all devices [1].

3. Mobile Browser (Full web in our palm)

Browser allows browsing sites online and helps the user to search information from all the access points, they differ greatly in terms of their operating systems supported, the best can display most websites and offer page zoom and keyboard shortcuts, while others can only display websites optimizes for mobile devices. Vendors are searching for the best and adapting significant change due to the changing needs of the patrons as it evolves from a lay man's internet to full-fledged web experience. Independent browser software vendors such as Opera, Open wave and ACCESS have all been working on browsers that incorporate the latest Web standards and start to create an experience thatovercomes some of the inherent shortcomings ofmobile devices. Today

many smart phones ship with browsers from these vendors, as well as some internally developed by Vivo and others that can render many Web pages without the need for proxy server-based content adaptation, and automatically adjust layout for the screen and navigation requirements of a handset. Opera 9.5 and opera dragon fly are recent developed browser from opera mobile. Mobile firebox is also in the line of browser. Others listed below are free and in-built with the devices:

No.	Name of Browser	Key Features	Needed Operating System	Price
1.	Opera Mobile	Multiple tabs, Zoom-in	Windows Mobile, Symbian	\$24
2.	Opera Mini4	Compressed downloads for fast browsing, Zoom-in	Java	Free
3.	Skyfire	Display rich websites with Flash or widgets like YouTube, customizable zoom feature	Windows Mobile, Symbian	Free
4.	Safari	Display rich websites like YouTube, zoom feature, excellent touch-based user interface	iPhone	Free with iPhone
5.	Mozilla's Minimo	Multiple tabs, Social book marking	Windows Mobile	Free (open source)
6.	Google Android	Display rich websites, zoom	Google Android	Free with Androi

		feature, touch screen interface		d
7.	Bitstream's Thunderhawk	Compressed downloads for fast browsing, Zoom-in display	Symbian S60, Windows Mobile, Java	\$49.95/year or \$5.95/month
8.	Microsoft IE for Mobile	Standard browser features	Windows Mobile	Free with Windows Mobile
9.	Blazer	Standard browser features	Palm OS	Free with Palm OS
10.	S60 Web Browser	Standard browser features	S60	Free with S60

Figure: Mobile Browsers and details

4. Mobile Technology versus Libraries

The "Libraries in Hand" trend has now arrived with mobile technology. Our librarians are on the move to determine how these devices affect access to information and to ensure that they communicate with customers and that web content is provided in the most appropriate and effective way. Our librarians must be prepared to take up this challenge and make efforts at any time, anywhere on their own handheld device, to increase the competition and demand for mobile access to personalised facts and information. Since mobile devices are essentially personal devices, it is possible to use search histories and physical locations to create more detailed, individualised data and services. Users on the go don't want to wait for the web results page, they

want answers to their question at once, so they find different mobile searches from normal web searches.

More and more library users are using their cellphones or other mobile devices (e.g., PDAs, smartphones, etc.) for much more than talking and texting. Many patrons are searching and browsing the web, reading magazines and books, and generally doing things that recently used to do by computers. Technology has changed people's way of perspective and thoughts and producing its capabilities to the fullest even I am as a author to this article unable to cope up all the technicalities involved in mobile technology world because every second new technology is replacing other, yet I have tried my level best.

Libraries today are covering most of the technologies given by mobile industry like PDA's ,Blackberry, iPod, Cellphones, UM PC's (UltraMobile 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 features. As not all content is optimized for the mobile network, so the Transcoded Web is developing to transcribe content to fit into a mobile device. Its not perfect and some content is lost, but it's happening. There is mobil.licio.us, mobile blogger and a mobile My Space version [4].

Librarians will need to become proficient in using these devices to enable users to access the many where from any place. Sirsi announced a product called Pocket Circ software that runs on a

PDA that allows library staff to perform circulation tasks in any part of the library with wireless connectivity. With a handheld PDA device in a Windows CE environment, sirsi pockcir blends the strength of the sirsi Unicom Library management system with the simplicity and ease of PDA to provide you with all the benefits of wireless technology. I believe libraries will benefit from this form of functionality. Adding circulation details and library book locations takes advantage of the device's versatility and brings another degree of self-sufficiency to the transaction. In order to better serve their mobile customers, libraries may want to consider offering access to circulation records, book due dates, overdue notices, and ILL requests through cell phones and handhelds. It certainly seems to be a boon to the workers as they are free to serve customers and conduct both online and offline circulation operations without needing to be on the workstation desktop.

4.1. E-books and Databases

Publishers are moving to turn content into a mobile device e-book format (ranging from Kindle, Sony's e-book reader, cell phones, and other e-book readers) CSS enables the e-books to be amazingly usable and formats as you like, and provides the user with a great reading experience.

Fable Publishing of Chico, California released its latest mobile-optimized website specifically for internet browsers using mobile devices such as Pocket PCs and smart phones such as the iPhone or Blackberry. PR Log (Press

Release)-Nov 03, 2008. The strong internet browsing capabilities of new generation mobile devices have increased demand for online mobile content, and the free ebooks normally available from Falbe Publishing's main websites can now be easily obtained by mobile device users at <http://mobile.falbepublishing.com> To create a positive and useful experience for mobile internet browsers, the new mobile website presents a very brief and simple version of the publisher's offerings in order to accommodate small screens. Only brief messages and directions on how to access content are on the mobile website so users

To get chapters, pages and volumes off the bookshelf and onto the mobile device, Google has partnered with major publishers. The end result would be downloadable e-books that Google users would store on their Blackberries, PDAs and smart phones (or mobile e-book reading devices) along with conventional PCs and laptops that would either be sponsored by free & advertisers, or accessible through 'on-demand' micro payments (... perhaps Google Checkout...). Jens Redmer, director of Google Book Search in Europe, said: "We are working on a platform that will let publishers give readers full access to a book online. E-Books are being provided by Overdrive, Net Library and more, which can be used on mobile devices.

We also have lexis Nexis content on the blackberry wireless handheld, you can search the Lexis Nexis services or access you LexisNexis publisher's topic from the device. It's a leader in providing integrated information solution.

Ovid is also mobilized the critical information in the form of journal articles, an instant access to vital information, drug, drug interaction, and other topics.

Factiva (vendor) gives news and sales leads on Blackberry. Dot Mobi Releases Device Atlas Version 2.1 Mobile Device Database



The company behind the .mobi Internet domain and the morning mobile web developer forum announced that the 2.1 edition of DeviceAtlas™, the most extensive mobile development database in the world, is now available ... It includes a variety of features including data analytics and enhanced search functionality, and these enormous features include recent technological developments such as the test of automated phone technology and the ability to download customised database versions.

"Trey Harvin, CEO of dotMobi, said," We have built the most full smartphone data database out there with Device Atlas. The inclusion of device data from Motorola guarantees the comprehensiveness of the Device Atlas. The involvement of Sprint in Device Atlas complements the carrier's industry-leading open approach through the Sprint Application Developer Program and Technical Developer Program to collaborate with application developers. [5]

4.2. Mobile Optimized Catalogs and Ready References

ILS vendors are starting to make Mobile Optimized Catalogs - so that patrons can access library catalogues through their mobile device. Air PAC product enables searching library catalogs as well as patrons can access their library account , request and renew their items on their own wireless device (PDA, Web enabled phones, web tablet, laptop), it's a product that will auto detect the type of device you are using and format accordingly the catalogs without graphics for better viewing. Lib Sirsi-Dynix, Innovative and even Library Thing have this option now. Ready Reference in the form of various e-book publications is available for a wide range of mobile devices, also search with MobileAsk, answer.com.

4.3. Mobile optimized library websites

Libraries have been talking about optimizing their web sites for mobile devices for years, but mobile browsers have lagged in their ability to display content and have had limited functionality The evolution of mobile device browsers (listed above) has benefited from a marked increase in processor power and the increased speed and coverage of wireless network infrastructures. The browser development has also been accelerated by the increased number of web sites being optimized for the mobile users. Megan Fox's who is web and electronic service Librarian at Simmons College explains topic in her site

web.simmons.edu which covers many of her presentations on mobile trends and use in libraries and discuss about the various aspects in this regard. She also lists several libraries with mobile optimized sites including [6]:

- American university library
<http://www.library.american.edu/mobile>
- Ball State University Library
<http://www.bsu.edu/libraries/mobiles/>
- Boston University Medical Center Mobile Library : <http://med-libwww.bu.edu/mobile/index.cfm>
- Cal Poly Pomona University Library
<http://www.csupomona.edu/library/mobile>
- Hanover College, Duggan Library
<http://library.hanover.edu/mobile/mhome.html>
- Harvard College Library
<http://hcl.harvard.edu/mobile/versions>
- University of Illinois Library
<http://hades.grainer.uiuc.edu/nikki/mobile/version1>
- New York University Libraries
<http://library.nyu.edu.8000/mobile>
- University of Richmond Library
<http://oncampus.richmond.edu/academics/library/mobile>
- St. John's University, College of St. Benedict
- University of Virginia Library
<http://mobile.virginia.edu/library.php>

As a mobile user one can find that how these libraries have maintained their mobile web

content They all generally give the details of library hours, library location, library services and allows the userto connect with librarian for reference service. I try to put the details of contents of one library to better understand the contents of the sites. For example: American University Mobile Library

SMS Reference

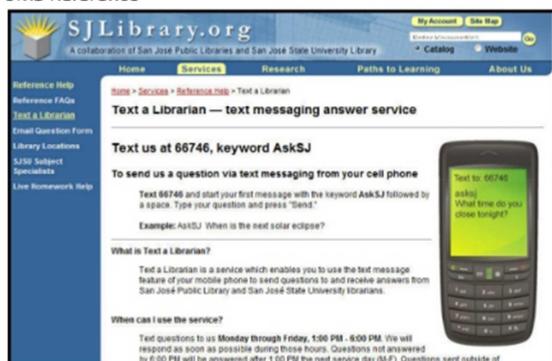


Figure 2: American University Mobile Library service (Source: <https://www.slideshare.net/ellyssa/libraries-to-go-mobile-tech-in-libraries-presentation>)

The American University mobile library covers the resources in PubMed(Handheld) form and mobile search facility with various searches. All library e-resources like ebooks, e-journals, bibliographical databases are in portable format for mobile users.

4.4. Multimedia Contents

Net Library audio books of San Francisco public library are now available on mobile device and Library of congress audio tour just by calling the number by your cell from any place. The New York public library or eNYPL with its multimedia collection is accessible via mobile device. Mobile

TV like MobiTV allows live TV that goes wherever you go and view 25 channels with normal search. TiVo is also now available on mobile devices. YouTube and Second Life are working on mobile versions. Libraries have produced videos particularly for the mobile screen.

4.5. Mobile Search

Mobile search options are full of information sources , Studies declares User 's are mostly searching E-mail and Ring tone downloads at routine basis .Weather, news, sports, local search, Game Downloads, travel information, wallpaper downloads, directory assistance, financial information, paybills, shopping are another less performing activities by mobile user's.Google.com , yahoo.com, m.live.com are the search sites(engines) that enables various searches and provide information.

The future of mobile search combines exclusive patent-pending search personalization, recommendation and advertising technologies, to create a superior mobile information experience while driving career revenues. Medio search system is a gateway to the information wireless users seek while on the go. There are other searches on mobile like meta search, photo mobile search, spoken/voice search, location based search [7].

4.6. SMS/Texting – Library's instant Access

Google SMS enables you to send queries as text message over your mobile phone or device

and easily get precise answers to our questions, NoLinks, No web pages, just text and information in seconds. Merriam Webster (online) is mobile subscription facility, and just by putting our mobile number we get the word information just by messaging.

Library OPAC system is now mobilized by facility of text message to check the availability and other details of books. Publishers are sending extracts from books out via SMS. Websites are now giving the option of sending content to IM addresses and via SMS.

Librarians are extending reference services -Altarama in Australia provides a SMS to email toSMS service for librarians/library users. Tele flipand Gizmo SMS are other new services [11].

5. Conclusion:

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.

We will expect having large component of asynchronous voice messaging including threaded discussions using v-mail technologies that will help the staff in providing ready reference service leaving behind texting and SMS. Timed v-mail as well as mobile v-blogging can well enhance the usage mobiles in future. It should be realised that the mobile web 2.0 social networking application

for the library community makes conversations, blogs , wikis and other features useful for all library growth. Due to the availability of web content 24 * 7 and the possibilities of its harm and loss on the device and even smartphone searches by all individuals without any authentication or identification, privacy and copyright should be a matter of concern in the future, as it will be the fastest growing application in the next five years, even today. By delivering quality-based services that meet the user's needs, the librarian must fully consider the strengths and potential of mobile technology and its use in libraries in the immediate future.

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