## Use of Mobile Apps for Libraries Services: An Overview

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### Abstract:
- Digital Technology provides faster access to information and a lot of changes in the library service. We Information professionals facing incredible challenges and need to rethink to adopt this wireless technology for disseminating scholarly material and learning objects to our users. Today Mobiles and wireless technology are an integral part of human being to connect whole world and present a new dimension in information landscape. In this shifting trend it will be of great help to libraries towards strengthening their relationship and providing enhanced user oriented services to existing users & remote users who were considered unlikely to connect because of absence of a medium. This paper attempts to focus on usage and impact of wireless tech in library services. Mobile help in creating a library app or mobile Web site that allows patrons to access library hours, view search databases. This paper helps libraries to plan and implement their own unique mobile apps. analyze usage of mobile apps providing an overview of devices, describing various activities these devices support for well library use; focusing how libraries and our librarians are responding with services tailored for these devices; and what can be done by libraries in future in this respect.

**Keywords:** Mobile Technology, SMS notification services, Mobile apps.

### 1. INTRODUCTION

Mobile phones are wireless, they work on radio waves and are used anywhere. Before ICT, libraries had books, journals, newspapers, microforms, slides, etc. Use of telephones and computers and later Internet Services brought more efficiency. Global System for Mobile Communication (GSM) has revolutionized the daily lives of individuals. It can also enhance library operations. M-learning, is mobile-phone learning.

Mobile technology has made communication and information access very convenient and timely to users from the comfort...
of their own homes and offices, and from wherever they are while on the move with their cellular phone units or PDAs (personal digital assistants). As today’s cellular phones have more features and capabilities than ever before, including mp3players, picture messaging, streaming video, and become more data-capable, fewer people need a computer to collect information. People use a cell phone as their primary interface for surfing the Web, listening to music, watching television, reading books, and interacting with friends. So over the past ten years, the mobile phone has become one of the major interfaces people use to access and share information. Now a days libraries are not only social institutions, they connect people with information. Libraries can take advantage of mobile technology. Librarians use these technological changes, peer forward, and prepare for the future of library mobile interaction. Librarians can use this trend and integrate themselves into the mobile realm to deliver and enhanced user services. Mobile devices offer tremendous flexibility with a simple 3G connection; a user can access e-books and multimedia content from a local library to anywhere. Smartphone gives access networks and it is possible to provide content on demand, without maintaining a paper copy of the material. Google is developing for mobile first and the desktop second. Apple is in the midst of making its desktop computers behave more like its mobile devices. Aside from offering convenience, mobile technologies present new opportunities for libraries to promote access and expand reach.

2. WHY MOBILE WEB?
Mobile websites are made especially for the small screen. They appear as scaled-back versions of their desktop counterparts, mostly with a numbered menu system for quick access to content. Web pages that do not have mobile versions appear as if they have been squeezed onto the tiny screen, with overlapping menus and links. Websites transcoded (digital-to-digital conversion of encoding, e.g. movie data files (PAL, SECAM, NTSC), audio files (MP3, WAV) character encoding UTF-8, ISO/IEC 8859) formatting can be applied to make it more readily viewable on a phone.

There are several reasons why library should go for mobile:
1. Mobile phones used in the world as personal computers.
2. Mobile makes your content ubiquitous.
3. Mobile expands your audience & enables to offer more service irrespective of location
4. Mobile enables you to connect to patrons via a new medium.
5. Mobile is the way of the future & easier to access.

3. BENEFITS & RESTRICTIONSOF THE MOBILE WEB
Mobile web is connected through internet on small screen it provides many benefits as desktop such as:
1. Constant connectivity: provide users with around the clock access to internet everywhere
2. Location awareness: today's smart phones and pocket PCs have GPS system gives information where they are.
3. Limitless access: mobile web include not only sites but also browsing World Wide Web.
4. Interactive capabilities: mobile web offers users to read/write in the palm of their hand. Users can create content, share and rate media, make comments, write blog posts, tag resources, and form connections on social networks.
5. Slow connectivity: to overcome this, mobile web is offering content as downloadable modules that can be transferred to the mobile device using Bluetooth or a USB data cable.
6. Data cost are high.
7. Multiple standards: come in different mobiles, with different screen size and operating systems.
8. Repurposing existing e-learning materials for mobile platforms.
9. Display of large digital content takes time.

4. LIBRARY SERVICES PROVIDED THOROUGH MOBILE WEB/ TECHNOLOGY

4.1 SMS notification services
Libraries can provide alerts of latest news, events notices via SMS / MMS to users. Users can get notified such as- alerts of new books suggestion, intimation of arrival, reserved documents collection, reminders issue return of library items, overdue, fines, circulars, e-journals links, changes in timings, important events, loan request etc. It can be generated automatically using integrated library management software. SMS messages can be sent to group of users simultaneously through many free applications, and intermediary websites/clients.

4.2 Formal Education, Distance Learning and E-learning
Today students are versatile in using various mobile applications. Academic libraries can take advantage of this for library services to support distance learning, formal education, and research activities in e-learning environment by making the information resources omnipresent. It can blend with teaching and research practice of colleges/universities, scientific community or other patrons whom they serve.

4.3 Database Browsing
Libraries provide access to a variety of its resources and databases. Users can just enter through search and get results designed specifically for mobile viewing. This service includes OPAC integrated search, document search. 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 PDA or a smart phone.

4.4 My library
This is a personal library space where users can find information and resources of their choice. Users can read alerts, check records, renew resources, request items, track interlibrary loans and document delivery requests also set up email for books and journal articles, preferences for catalogue searching, etc.

4.5 E-resources with Mobile Interfaces
Some publishers are already delivering e-books (both text and audio) accessible via mobile phones. It offers access of databases and digital resources such as e-Books, e-Journals, Web databases, dissertations, audio books, streaming music, films, images and article databases which can be used on mobile either from library websites. A large collection of audio books both free-and subscription based services are available for download and also transferable to mobile devices.

Libraries can make use of multimedia messaging service (MMS) on mobile devices to share photos, videos, and audio. Most of the e-book publishers provide 24x7 accesses to the library subscriptions from any internet terminal within the campus, as well on mobile devices, such as iPads, Android devices, and Kindle.

4.6 Library guide
Libraries can give users the best of library guide information such as library use guide, question answering service, and library statistics delivering rich content in a way that works best for users. If users have questions and want to contact the librarian for help, they can get a fast response from the library via the mobile device and find the appropriate information needed.

4.7 Document / Text reference service
Through Mobile various opportunities arrive, such as sending document requests, scanned images, monitoring use of collections, automation of administrative operations. It supports funds transfer, online marketing, online transaction, electronic data interchange, and automated inventory management systems. Library gives responses to high volume of enquiries, which may be brief responses of facts or service to instant answers, and links to articles/references in real time.

4.8 Library Virtual/ Audio Tours
Library Virtual/ Audio tours, instruction/induction/orientation programs have been quite significant in bringing the non-users to libraries and also help the remotely located or users located in different geographical locations. Library users, who don’t have time or inclination to attend an on-site workshop, can get access through library tours on their mobile. Audio/ virtual library tours can be produced fairly quickly, reasonably, and could reduce staff time spent in helping new users to orient library and
explaining the facilities available. It can easily be provided both as downloads from the library website and on mobile devices.

4.9 QR Codes on Mobiles
QR code stands for ‘quick response’, and are basically two-dimensional bar codes that can contain any alphanumeric text and often used to store urls, text, url links, geo coordinates, and text known as ‘mobile tagging’. Data can be translated into a QR code by any QR generator, many of which are available as free download. Data may be translated, generator produces the code, then displayed electronically or printed format. Information can decode by mobile camera phone that has a QR reader, freely available in most devices.

5. MOBILE DEVICES USED IN LIBRARIES
Design of mobile devices and services is important for access as reading becomes more inclusive of diverse communities; libraries require focusing ongoing accessibility and challenges of mobile world.

1. PDAs (Personal Digital Assistant)
2. Smart / Cell Phones – Blackberry, Sony, Samsung ultra, Apple's iPhone, Nokia N93
3. iPods and MP3 players- Apple's iPod touch, Sony play station portable
4. Tablets/ Pocket-size computers

6. COMPONENTS
1. Users – library management, members – faculty, students and others
2. Devices- Pocket PC- HP, Dell, and others, smart phones
3. Operating systems – Palm OS, software/ application development, Handwriting recognition, Biometric integration
4. Palm software, Windows Mobile software
5. Services –SMS alerts, reference
6. Content – library materials
7. Vendors of e-materials

7. PREREQUISITES FOR IMPLEMENTING MOBILE-BASED LIBRARY SERVICES
Mobile technology is able to supply necessary service on its own, but needs to be integrated with digital technology as per library services. The following basics were identified:

1. Digitized information base
2. Information products should be designed for an e-platform
3. Electronic information service delivery
4. Design of electronic access systems

8 MOBILE SITE DEVELOPMENT TOOLS
Even though libraries create own mobile apps, various services available to translate website into mobile interface e.g. use of CSS (Cascading Style Sheets) / ADR(Auto-Detect and Reformat Software) allow website to reshuffle manage and navigate for size of the screen to view. Library websites OPAC designed for viewing on mobile devices are as-American University Library, University Library, Cornell University Library, Duke University, etc
There are many standard apps available we should familiar for reasons as they are used for more than a year and usage is rising. They are part of an ecosystem that works as native mobile app, web app, and possibly a desktop app offer effortless ways to send information. Many apps cover basic and useful things for people do on mobile devices. Some APPS useful for both Android and iOS, except Fantastical and iBooks are:

a) **Evernote** cross-platform app designed for taking notes, organizing archiving

b) **Drop box** storage file hosting service for cloud, file organization, personal / client software.

c) **Instapaper** (saving web pages for reading offline) is a bookmarking service owned by Interest. It allows web content saved and "read later" on a different device, such as an e-reader, smartphone, and table.

d) **Pocket** known as Read It, its application and services manage read list of articles from Internet. Available for macOS, Windows, iOS, Android, Windows Phone, BlackBerry, Kobo eReaders, and web browsers.

e) **Fantastical** calendar iOS you'll enjoy Mac calendar. Quickly create new events and reminders with natural language input and more

f) **1Password or Last Pass** is secure password managers developed by Agile Bits Inc. provides space to store passwords, software licenses and other sensitive information in a virtual vault locked with a PBKDF2-guarded master password.

g) **Kindle** globally popular e-reader and e-reading app on the market, and was created by Amazon. Due to its connections with Amazon it has a huge selection of books to choose from in a multitude of categories.

h) **iBooks** is iTunes app access to the iBookstore for a wide variety of reading materials.

i) **Free Books** app provides 23,469 classic titles for your selection, and allows for highlighting, notes, dictionary support, and bookmarks, which make it an asset for any library.

j) **Skype** application software provides video chat, voice calls linking computers tablets mobilesmart watches via Internet and telephones.

k) **Google Voice for** phone calls you can stay in touch from any screen, use your free number for text, call, check voice mail everything from one app.

l) **Zinio app for** magazine lovers can use digital by iPad, iPhone, Android, Mac & PC. News may break and stories live on Zinio.

m) **Next Issue** magazines app on monthly fee, gives you all-you-can-read access to a large library of digital magazines

n) **Feedly and Flipboard** learners use on their phones and tablets to follow the blogs, magazines and other sources that matter to them.

o) **GeniusScan** is a pocket scanner enables you for quick scan of documents and export your scans in JPEG or PDF, users has won several productivity app prizes and awards like Genius Scan+ integrates with Box, Dropbox
p) Social media apps Twitter, Instagram, Facebook, Pinterest, Foursquare for start your service.

There are lots of apps available in the areas of news, reference, productivity, multimedia, speech recognition, interactive e-books, art, drawing, photo editing, music listening & creation etc.

10 Conclusions

Mobile applications in Libraries are used mainly as network access becomes more affordable and reliable. They have also seen mainstream acceptance in teaching, learning, and research. This trend will continue as libraries can respond to this emerging trend is to make the library's website easily accessible via web-enabled mobile devices.

Libraries should conduct analyses and make smart decisions, such as – support staff education, explore partnerships, new funding models, ready to compromise with traditional information delivery models, protect themselves from deceptive content agreements with third party providers.

Expert knowledge of mobile devices to flow through the profession, 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. Lectures or discussion groups or include such information in their websites, blogs, or newsletters.

Libraries should consider some issues before start the content and services of mobile apps such as licensing information of products for mobile devices also hosting or pointing to institutional content intended for mobile devices, e.g. podcasts, preserving new content types and formats, providing instruction on the devices themselves, not just access to content.

Library staff learns and use the technology to serve their users also libraries face management for funds and training for technical knowledge. Libraries should make conscious choices about what they want to offer and act accordingly. Future will tell if a completely mobile-accessible library, in terms of its services and collections, will become common place. Through this we take a giant step toward becoming a round-the-clock service.

References


We consider advantages and disadvantages of mobile apps for business and compare them with benefits of having a mobile website to help you decide. The first difference with a mobile application lies in the internet connection. Customers need it to use full capabilities of the website. From the financial point, the difference between a website and mobile apps lies in a price range. In a majority of cases, websites are more budget-friendly. Talking about a mobile app, it’s a piece of software created to run on a certain platform like iOS or Android. They are fully-featured, can be downloaded on app stores as well as used in both offline and online mode. Advantages of mobile applications often surpass benefits from having the mobile website. Why some apps became more popular and how to monetise your application? A few helpful tips. This clearly indicates what purposes are people using mobile apps for. They tend to do business, communicate, entertain and play games, educate themselves, and relax, of course. Gaming apps. For you to secure such an app, ensure you seek help from a reputable mobile app development service.