On the Move with the Mobile Web: Libraries and Mobile Technologies Ellyssa Kroski

What Can You Do with the Mobile Web?

Mobile Web Applications

he mobile Web opens up a world of knowledge that can be accessed on the go by shoppers, travelers, readers, listeners, and news hounds with an information need. It's now possible to listen to an audiobook on the commute to work, catch highlights of last night's game, issue a text message to a roster of 20 friends, find out when the next bus will arrive, or listen to satellite radio. This chapter summarizes many of the activities in which mobile Web users are currently engaged and will hopefully provide inspiration for either developing libraryrelated services or increasing personal productivity.

Some of these applications may not seem pertinent to libraries, and many of them won't be right for your library in particular. But, just as with Web 2.0 and other new technologies, having a picture of the landscape at large and knowing how industries are making use of these mobile technologies can be invaluable in sparking new ideas and initiatives. Innovation in any arena is built upon a foundation of knowledge. For instance, the mobile Web has spawned several new food-ordering services that enable regulars to avoid long lines by texting in advance requests for their favorites. How great would it be for patrons to be able to do something similar with libraries? One university library is already making it possible for students and researchers to check on the availability of lab computers while on their way to the library. Why not take it one step further and allow them to reserve a station while commuting so that when they arrive they don't have to wait or sign onto a list? Start to consider how you might apply some of these emerging services in your own environment.

E-mail

Anytime access to e-mail is a convenience for personal exchanges and an absolute necessity for business use. Web-based e-mail accounts can be accessed by visiting corresponding mobile Web sites. However, the method of choice for mobile users is "push" e-mail (see figure 7). Push functionality delivers e-mail messages directly to a user's mobile phone, eliminating the need to browse to a client and collect it. As new messages are delivered, the user is immediately notified that a new message is waiting.

Push e-mail is available on most of today's smartphones, PDAs, and iPhones. Users may configure several types of mail accounts on their device: POP3 or IMAP for personal e-mail, such as Yahoo! (see figure 8) or AOL Mail accounts; Microsoft Exchange Server or Good Mobile Messaging for accessing corporate e-mail; and Research In Motion's BlackBerry e-mail. If your phone does not have this type of functionality built in, you can install it yourself by downloading an application, such as emoze or the open-source Funambol, that will enable you to push e-mail as well as sync your contacts and calendars.



Figure 7 Push e-mail



Figure 8 Yahoo! Mail

E-Mail Links

Yahoo! Mail Mobile http://mobile.yahoo.com/mail

Gmail http://gmail.com

AOL Mail Mobile

http://mobile.aol.com/aolproducts/mobile-email

Windows Live Hotmail http://get.live.com/mail/overview

emoze

www.emoze.com

Funambol www.funambol.com

Text Messaging

Sending and receiving text messages is by far the most popular data activity for cell phone owners, with 42% of U.S. adults with a cell phone engaged in the activity.1 Indeed, Jupiter Research studies have discovered that 40% of mobile users aged 15 to 24 send more than 10 SMS messages per day.2 In addition to sending text messages to friends and contacts, participants in this mainstream mobile activity enjoy a host of ways to take advantage of the easy-to-use SMS technology (see figure 9). Mobile device owners can vote for their favorites on reality TV shows such as American Idol and Make Me a Supermodel; sign up for news alerts from an array of Web sites, including the Weather Channel and ESPN; and

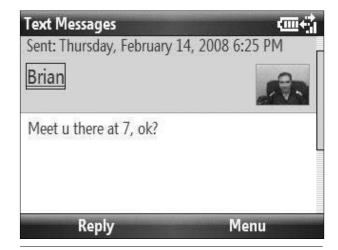


Figure 9 Text messages

even text a search term to Google or Yahoo! They can send SMS messages to groups of friends simultaneously through services such as bluepulse and Joopz, or utilize Web sites such as Mozes and Broadtexter, which enable members to create their own mobile clubs that broadcast alerts to subscribers. And many Web sites, including Mapquest, Yelp, and Evite, offer the option of sending information such as addresses and directions to cell phones via text messaging.

Text Messaging Links

Gooale SMS www.google.com/intl/en_us/mobile/sms

Joopz

www.joopz.com

bluepulse

www.bluepulse.com

Mozes

www.mozes.com

Broadtexter www.broadtexter.com

Ringtones & Wallpaper

One of the most popular diversions for mobile phone owners is downloading ringtones and wallpaper to enhance their handsets. These audio and graphics files can be purchased via the Web and sent directly to the user's cell phone. Most carriers have ringtones for purchase through their own portals. However, many other communities are also offering such mobile content. Web sites such as Thumbplay and Flycell offer monthly subscriptions at an average of \$10 per month entitling members to a number of credits used to purchase ringtones, graphics, or games. Other content providers, such as RingTone Jukebox, offer up ringtones for individual sale, ranging from \$2 to \$3 each. Additionally, many of today's movies, such as The Spiderwick Chronicles and Jumper, have themed ringtones and mobile graphics available for purchase in the Downloads sections of their official Web sites (see figure 10). ABC, CBS, and Nickelodeon television networks all have mobile Web sites with hundreds of wallpaper and ringtone files from their daytime and primetime lineups, including favorites such as General Hospital, Lost, Jericho, and Dora the Explorer.

Free ringtones, themes, and wallpapers are available for Windows Mobile device owners from Microsoft's Owner's Circle, and a selection of hundreds of ringtones are ready for download by all users from CoolFreeRingtones.

The Mobile Park community lets users download free wallpaper graphics and themes for their phones and even provides tools that allow them to make their own. Cell phone owners can create their own ringtones for free from their MP3s and other music files at the Phonezoo by simply uploading their audio files and selecting a section to use as a ringtone.

Ringtones & Wallpaper Links

Thumbplay www.thumbplay.com

Flycell www.flycell.com

RingTone JukeBox www.ringtonejukebox.com

ABC Mobile http://abcmobile.playp.biz

CBSMobile http://web.cbsmobile.com

Nick Mobile http://www.nick.com/minisites/nickmobile

Windows Mobile Owner's Circle https://www.microsoft.com/windowsmobile/domore/ default.mspx

CoolFreeRingtones www.coolfreeringtones.com

Mobile Park www.mobilepark.eu



Spiderwick Chronicles wallpaper

Ringtones & Wallpaper Links (cont.)

Phonezoo http://phonezoo.com

Beginner Tip #1: Make use of the bookmarks feature available in mobile browsers to save you time and typing.

Music & Radio

Many cell phones, smartphones, and PDAs available today are capable of playing MP3 files, Windows Media files, and other audio formats, making them an all-in-one device. Mobile phone carriers have realized the potential of offering music downloads and radio access and have started providing these as premium services. Verizon makes over 2 million songs available for purchase as a part of its V CAST service, and Sprint offers streaming music channels and SIRIUS Satellite Radio. Alltel offers downloadable music through its Jump Music service and provides XM Satellite Radio as well as its own Axcess Radio with over 40 channels. AT&T subscribers can choose from many different mobile music applications including XM Satellite Radio, MobiRadio, Napster Mobile, Billboard Mobile, and more. Smartphones, PDAs, and some multimedia phones that enable users to sync their devices with their computers have the ability to have music files transferred to them.

Radio lovers can listen to thousands of U.S. U.K., Canadian, Irish, and Australian live radio channels on their cells via the free Radio4PDA mobile Web site or can download the Mundu Radio application for more than 50,000 Internet radio stations. Pandora Radio offers an On the Go subscription service that integrates with its desktop Web site, allowing subscribers to listen to the stations they've created as well as rate and bookmark music. OverDrive media services provide music files as well as audiobooks and videos to subscribing libraries. Library patrons can download and borrow full albums in the classical, world, and New Age genres.

Music & Radio Links

Alltel www.alltel.com

Sprint www.sprint.com/index.html

Verizon V CAST http://products.vzw.com

Music & Radio Links (cont.)

TUNED.mobi (formerly Radio4PDA) http://tuned.mobi

Mundu Radio http://radio.mundu.com

Pandora Mobile www.pandora.com/on-the-go

OverDrive www.overdrive.com

Software & Games

Cell phones and handsets of all types come prepackaged with some mobile applications or games installed. But phone owners needn't limit themselves to those programs, as there are thousands of applications available for their devices. Most mobile phone carriers offer a variety of apps for purchase through their Web sites and will often create a shortcut for subscribers to navigate directly there on their phones. And there is no shortage of other Web sites and services offering similar mobile shopping experiences. Handango (see figure 11) offers thousands of mobile software applications, games, and utilities for purchase, such as office and printing programs, adventure games, cookbooks, mobile TV and radio programs, and championship chess. Handmark, makers of the Pocket Express travel software, has a large selection of games, such as Galaga, and programs such as virtual wallets and password managers. The CINET Download Web site offers over 6,000 free or free-to-try mobile software programs for device owners to nab, such as Adobe Acrobat Reader, a WiFi hotspot finder, and a ringtone maker.

The market leader in mobile games publishing, Electronic Arts' EA Mobile division, offers games such as SimCity and Orcs & Elves II for download at about \$3 each. Vivendi Games puts forward such titles as The Spiderwick Chronicles and Leisure Suit Larry, available for purchase through various carriers, while Glu Games presents Call Of Duty 4 and Age of Empires III for mobile. Playvoo is a mobile games community offering nearly 400 free titles for cell phone amusement. Likewise, Cellufun has a growing selection of free mobile games.

Software & Games Links

Handango www.handango.com

Handmark www.handmark.com



Figure 11 Handango

Software & Games Links (cont.)

CINET Download Mobile www.download.com/2001-2005-0.html

EA Mobile Games www.eamobile.com

Vivendi Games Mobile www.vgmobile.com

Glu Mobile Games www.glu.com

Playyoo Mobile http://m.playyoo.com

Cellufun www.cellufun.com

Instant Messaging

Some smartphones and data plans feature instant messaging as a built-in application. However, this is not a common feature. But instant messaging via cell phone is still possible for nearly any Web-enabled device. IM giants MSN Messenger and Yahoo! Messenger both offer Webbased chat clients, and AIM allows IM forwarding as text messages. And for those who prefer an IM aggregator, both Meebo and eBuddy (see figure 12) have mobile Web sites where users can sign in to their MSN, Yahoo!, AIM, and GTalk accounts at the same time. These solutions aren't perfect, as it is necessary to open up a Web browser rather than just signing into an offline application. But if you prefer to have an instant conversation rather than just send a text message, or if you have a contact who can't



Figure 12 eBuddy

shoot the breeze while at work, yet is constantly signed into an IM client, this type of mobile application may be worth a try.

Instant Messaging Links

MSN Mobile http://mobile.msn.com

AOL Mobile http://mobile.aol.com

Yahoo! Mobile http://m.yahoo.com

Meebo www.meebo.com/mobile

eBuddy www.ebuddy.com

Beginner Tip #2: Be on the lookout for Web sites that offer to text their mobile link to your cell phone.

Social Networking

According to JupiterResearch, MySpace ranks even higher than e-mail access as the second-most desired service for mobile teens, just behind downloadable content such as ringtones.3 But social networking isn't on the wish list for just Gen Y users. In June 2007, over 12.3 million people in the United States and Western Europe accessed a social networking Web site on their mobile phone, according to M:Metrics.4 Facebook (see figure 13) has over 2 million active users on its mobile Web site, which enables networkers to update their status information, poke and message friends, write on walls, write notes, access e-mail, search, and view profiles and groups. The MySpace mobile environment gives 3.7 million socializers nearly all of the features of the desktop Web site, including entering status and mood updates, blogging, managing comments, messaging and commenting on friends, search, and e-mail access.5

New social networks tailored specifically for mobile phone users are forming. The Australian-based mig33 enjoys a global network of over 9 million mobile users in more than 200 countries.6 Members of this social community can set up profiles, chat, IM, text, and send photos to friends, as well as make low-cost international calls through the VoIP service. MocoSpace members can set up mobile blogs, chat with friends, IM, and send photos and videos to their connections. The ZYB social network out of Copenhagen has over 200,000 members who can back up their cell phone contacts, calendar, and messages, and connect with friends through SMS, send photos, and update their status.⁷ The Google-owned Zingku mobile network, enables members to text and IM friends, send user polls and invitations, and create mobile flyers.

Social Networking Links

MySpace Mobile http://mobile.myspace.com

Facebook Mobile http://m.facebook.com

mia33 www.mig33.com



Contact Info

Emails: ek2251@columbia.edu ellyssa.kroski@liu.edu

Figure 13 Facebook

Social Networking Links (cont.)

MocoSpace www.mocospace.com

ZYB https://zyb.com

Zingku www.zingku.com

Social Mapping Networks

Social mapping is a mobile subgenre of social networking in which members' current locations are shared with friends and often plotted on a map. Many of these networks utilize GPS or other location-tracking technology to pinpoint members' coordinates. Social mapping networkers are alerted when in the vicinity of friends and can often leave geotagged notes for them.

Loopt is a subscription-based social mapping service available to Boost and Sprint customers that displays friends' locations and their status on a map and enables members to send messages and photos to local contacts, leave notes on locations (such as restaurants) for friends, and opt to be notified when friends are nearby. Socialight (see figure 14) is a free mobile social network that lets users create sticky notes along with photos, sounds, and video and associate them with places they've visited in order to share their experiences and recommendations with friends. Members are able to log in to the service to receive sticky notes, such as restaurant recommendations, for the area they are currently in. Dodgeball is a Google-owned mobile social network that lets members text their location to friends and acquaintances, who are notified if they are within a 10-block radius. Plazes offers their members a cross between microblogging and geotagging in their social network. Members text in their location, which is plotted on a map with their brief comments about the locale. Similar social mapping services include Buddy Beacon for Helio and StreetHive for Cingular subscribers.

Social Mapping Links

Loopt https://www.loopt.com

Socialight http://socialight.com

dodgeball www.dodgeball.com

Social Mapping Links (cont.)

Plazes

http://plazes.com

Buddy Beacon

www.helio.com/#services_gps

StreetHive

www.wavemarket.com/products_page.php?product=5

Mologogo

http://mologogo.com

X SOCIALIGHT

Moto: Fantastic Bistro on Brooklyn's Broadway



Like the sets of Triplets of Belleville and Delicatessen come to life. French bistro feel on Brooklyn's Broadway.

Figure 14 Socialight

Media Sharing Social Networks

The most basic form of media sharing is MMS, or multimedia messaging service, which enables cell phone owners to send messages that contain media objects such as photos, videos, and audio to other phones. A new class of social networking community has developed that revolves around creating and sharing multimedia files from mobile devices. The free photo and video messaging service Veeker facillitates sending and receiving video, photo, and text messages to a list of contacts or groups and creates an archive of all media exchanges. The photo-sharing Web site Flickr can be accessed via the mobile Web or the Yahoo! Go widget for uploading and sharing photos and exploring those of others. A cross between moblogging and social networking, mobile media sharing communities such as JuiceCaster, Zannel, Treemo, and Kyte allow members to share photos, videos, and text with friends or upload their media to a blog or a social network such as MySpace or Facebook.

Media Sharing Links

Veeker

www.veeker.com

Flickr Mobile

http://m.flickr.com

JuiceCaster

www.juicecaster.com

Zannel

www.zannel.com

Treemo

www.treemo.com

Kvte

www.kyte.tv/mobile

Search

Mobile search is a booming industry with advertising revenues predicted to reach \$1.4 billion by 2012, and all the major players have entered the field.8 Google's mobile search brings back the top six search hits in a traditional list style, with priority given to the mobile versions of resulting Web sites. Yahoo's oneSearch displays enhanced search results, offering mobile access to relevant content such as nearby business listings, Flickr photos, news articles, Yahoo! Answers, products, and Wikipedia entries, along with traditional Web results and links to call site owners. Microsoft's Live Search presents similarly enhanced results and also offers 1-click directions. AOL's mobile search defaults to provide local results first, allowing searchers to tab to receive results from Web, image, news, and ringtones categories. The Ask.com mobile search returns Wikipedia entries and images preceding the top five relevant search results. 4INFO is a mobileonly search engine that returns results to searchers via SMS text messaging on topics including sports, business, travel, and entertainment. Users are able to visit the 4INFO mobile Web site to conduct searches, subscribe to alerts, or simply text in their queries.

Search Links

Google Mobile Search www.google.com/mobile/search/index.html

Yahoo! oneSearch http://mobile.yahoo.com/onesearch

Search Links (cont)

Live Search Mobile
http://mobile.live.com/search

Ask Mobile Search http://m.ask.com

AOL Mobile Search http://wap.aol.com/search

4INFO

http://wap.4info.net

Multimedia Search

New mobile Web sites enable searchers to discover music, video, and image files. Taptu returns music, videos, lyrics, and MySpace and Wikipedia results, while UpSNAP searches the Web for mobile content including ringtones, wallpaper, and videos. And SeeqPod provides playable music search results for those who want to listen on the go.

Multimedia Search Links

Taptu

http://taptu.mobi

UpSNAP

http://wap.upsnap.com

SeegPod

www.seegpod.com

Local Search

Local search engines will find nearby merchants, restaurants, movies, and more on mobile devices. Loki will triangulate your position based on WiFi access points and deliver location-based search results. TrueLocal accesses 14.5 million businesses in the United States and Canada and 50 million local Web sites to return regional results, and Local.com (see figure 15) has a database of over 16 million business listings in the United States.

Local Search Links

Loki www.loki.com

TrueLocal www.truelocal.com

Local.com Mobile http://m.local.com

Shopping Search

NearbyNow gives users the opportunity to search the inventory their local mall and sign up for text alerts announcing sales, while Slifter enables local searching for products and shopping list creation. Cellfire (see figure 16) delivers in-store coupons to mobile devices for retailers such as Enterprise Rent-a-Car, Subway, and Hollywood Video.

Shopping Search Links

NearbyNow http://nearbynow.com

Slifter http://slifter.com

Cellfire www.cellfire.com

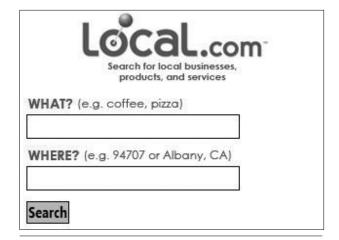


Figure 15 Local.com



Figure 16 Cellfire

Visual/Camera Phone Search

These search technologies enable mobile users to find information related to the world around them by employing pattern recognition technologies or utilizing quickresponse (QR) 2D barcodes. Mobot enables cell phone owners to take photos of posters, magazine pages, CDs, billboards, and brand logos in order to connect with mobile content, Web sites, information, and purchasing options. Thrrum allows camera phones to take point-andclick snapshots of any text found in books, on billboards, in stores, and so on in order to receive related search results. The Semapedia project strives to tag real-world objects with 2D barcodes that can be read by camera phones (see figure 17). When phones scan these barcodes, users are led to encyclopedic entries from Wikipedia. You can create your own Wikipedia barcodes on the site, as well as locate a link to install your own barcode reader. 2D barcodes can also be easily created on Winksite or Semacode Web sites.

Visual/Camera Phone Search Links

Mobot

www.mobot.com

Thrrum

www.thrrum.com

Semapedia

www.semapedia.org

Winksite

www.winksite.com

Semacode

http://semacode.com



Figure 17 Semapedia Library of Congress tag

Voice Search

Both Google and Microsoft have free voice-activated search available. Cell phone users simply speak the business name and location they are looking for and are automatically connected. Users also have the option to have the information and relevant neighborhood maps sent to their phone via SMS text messaging.

Voice Search Links

GOOG-411 www.google.com/goog411

Tellme www.tellme.com

Beginner Tip #3: Set yourself up for mobile ease by setting up accounts and adjusting preferences and profiles, etc. on your desktop computer first.

Mapping

One of the most convenient services to have on a mobile device is quick access to maps and directions. Microsoft's Live Search Mobile (see figure 18), Yahoo! Local, and Google Maps for Mobile are all free applications that will retrieve turn-by-turn directions on a zoomable map with an optional satellite view. After installing these programs, mobile users can access local traffic information, search nearby businesses, and send locations to friends via SMS.

GPS navigation services that utilize the global positioning system to determine location are also available for



Figure 18 Live Search Mobile

mobile owners. These applications provide voice-guided turn-by-turn directions, 3D moving maps, and pedestrian routes. MapQuest Navigator is a paid service available from AOL that also provides traffic information with alternate route suggestions and integrates with AOL Cityguide to offer searching local information about restaurants, music venues, and events and forwarding locations to contacts. TeleNav GPS Navigator is available through most U.S. carrier services and also offers traffic alerts, 1-click rerouting, and a Biz Finder business search for discovering local restaurants, WiFi hotspots, and more. Nokia Maps is a free downloadable collection of maps of over 150 countries and 15 million points of interest. The accompanying Nokia GPS navigation system is a paid service that offers users the option to purchase Berlitz and Insight guides that integrate with maps.

Mapping Links

Microsoft's Live Search Mobile http://livesearchmobile.com

Yahoo! Go http://get.go.yahoo.com

Google Maps for Mobile www.google.com/gmm

MapQuest Navigator www.mapquest.com/mobile

TeleNav GPS Navigator www.telenav.com

Nokia Maps www.nokiausa.com/A4686840

Widgets

Widgets are free mini-applications that can be downloaded onto a mobile device to provide access to Web-based information without having to open a browser. Remember following colorful icons in AOL that led to chat, e-mail, and shop channels? These easy-to-use browser alternatives use the same idea to offer users quick access to content. Widgets have enjoyed the most success in Japan with the mobile phone carrier NTT DoCoMo, which offers a subscription-based i-channel service delivering widget content to over 20 million mobile users.9

While some widget sets are preloaded by mobile carriers, many are downloadable by phone owners. Yahoo! Go (see figure 19) offers a carousel of widgets including Yahoo! Mail, calendar, contacts, oneSearch, Flickr, weather, local maps, and Yahoo! news channels, along with a widget gallery with optional MTV, MySpace, and eBay widgets. Nokia WidSets are compatible with over 300 phones and enjoy more than 3 million users. 10 There are 4,000 widgets to choose from, such as Sudoku games, eBay, Twitter, Flickr and many more created by Nokia's community of users. Plusmo boasts over 20,000 widgets in its gallery, including widgets for the iPhone, and football widgets that report play-by-play action. The Microsoft-backed Zumobi provides a 16-tile view of widgets, with content ranging from political news to Amazon search, that can be shared with friends' phones. And the home screen on Apple's iPhone features a set of widgets leading to e-mail, weather, maps, and other tools and information.

Widget Links

Yahoo! Go http://get.go.yahoo.com

Yahoo! Go http://get.go.yahoo.com

Nokia WidSets www.widsets.com

Plusmo www.plusmo.com

Zumobi www.zumobi.com

iPhone www.apple.com/iphone

E-Books

The recent popularity of the Amazon Kindle, which sold out in the first 5½ hours after it went on the market, has



Figure 19 Yahoo! Go

indicated a strong desire by readers to be able to view books on portable devices. With the installation of free software, many of today's mobile phones can also double as e-book readers. One of the more popular e-book reader applications and standard e-book formats is the Amazonowned Mobipocket. The reader can be downloaded and installed on the owner's mobile device and desktop computer, and books are collected, read, annotated, and bookmarked synchronously on both devices. The Mobipocket Web site has over 40,000 titles (more than 11,000 of them free) in its inventory. Many Mobipocket titles are available through local public library systems and can be downloaded from Web sites such as eNYPL, MyMediaMall, and over 7,500 libraries that are using the OverDrive media service.

E-books may also be read on mobile devices in Adobe PDF format and the Microsoft Reader for Pocket PC format. Books formatted for these standards, in addition to Mobipocket, are available at many online e-book Web sites such as Fictionwise eBooks (45,000 titles) and Ebooks. com (100,000 titles). There are over 20,000 free e-books available from the volunteer-built Project Gutenberg, which are readable with the free Plucker e-book viewer. And, if you don't want to bother with a reader, the Web site DailyLit will send you e-books in short, digestible packets straight to your e-mail inbox.

E-Book Links

Mobipocket www.mobipocket.com

eNYPL http://ebooks.nypl.org

MyMediaMall www.mymediamall.net

E-Book Links (cont.)

Mobipocket www.mobipocket.com

eNYPL http://ebooks.nypl.org

MyMediaMall www.mymediamall.net

Audiobooks

Audible's subscription-based service is the leading source of digital audiobooks on the Web. Members are able to download and listen to a selection of over 40,000 audio titles and may also transfer them to mobile devices. The iTunes Store has over 30,000 audiobooks for sale, which may be loaded onto portable devices such as smartphones or PDAs as well as iPods. Those who are looking for free audio entertainment will appreciate LibriVox, which is a collection of free audiobooks in the public domain. A large selection of audiobooks are available from public library systems that are utilizing the OverDrive digital media platform, which enables patrons to download audiobooks and use a wizard to transfer the books to their portable devices. And some libraries are offering e-book and audiobook titles from OCLC's NetLibrary collection.

Audiobook Links

Audible www.audible.com

iTunes www.apple.com/itunes

LibriVox http://librivox.org

OverDrive www.overdrive.com

OCLC NetLibrary www.netlibrary.com

Beginner Tip #4: Use synchronization software on the desktop computer to quickly and easily organize files and uninstall programs on your smartphone rather than working on the device.



Figure 20 SprintTV

Mobile TV/Video

Mobile TV unites two favorites-mobile phones and television-into one portable, mini entertainment center. Mobile phone carriers have begun to offer live and madefor-mobile television services on PDAs, smartphones, and other devices including Verizon's V CAST TV, SprintTV (see figure 20), and Alltel's Axcess TV. These services, some offering as many as 40 channels such as CNN, ESPN, Fox Sports, VH1, and Nickelodeon, are made available in paid packages by carriers. Mobile TV can also be accessed through a subscription service such as MobiTV, a mobile TV distributor with over 3 million subscribers, or by downloading software programs such as HandiTV.11 Mobile phone owners can also download video clips of their favorite television shows on NBC or search for amateur video and TV content on YouTube's mobile Web site. And TivoToGo lets Tivo owners send their recorded programs to their handhelds.

Mobile TV/Video Links

AllTel www.alltel.com

Sprint

www.sprint.com/index.html

Verizon V CAST http://products.vzw.com

MobiTV

www.mobitv.com

HandiTV from Handango www.handango.com

Mobile TV/Video Links (cont.)

NBC Mobile www.nbc.com/Mobile

YouTube Mobile http://m.youtube.com

TivoToGo

www.tivo.com/mytivo/domore/tivotogo/index.html

Travel Information

Travelers with cell phones now have a mobile information center at their fingertips. Drivers can access up-to-theminute traffic information via mapping services and also through Web sites such as Traffic.com's mobile destination. Amtrak has a mobile Web site that enables riders to check on a train's status and book and cancel reservations. FlightStats provides a mobile menu full of information options, such as checking flight status, arrivals and departures, airline information, security wait times, and airport chatter that includes comments made by other users (see figure 21). And SeatGuru will let you view seating charts for most airplane models.

There are also several mobile Web sites available to people navigating their way around major metropolitan areas. i-Metro and HopStop provide detailed instructions for taking the most direct route from one point to another in major cities via walking and public transportation including buses, subways, and ferries. Commuters will appreciate NextBus, which is a Web site that tracks individual city buses via GPS satellites to let travelers know when the next bus is due at a particular stop. And travelers in new cities can take advantage of Yelp's mobile Web site to check reviews of local restaurants and nightlife and T-Mobile Locator to find WiFi hotspots.



Figure 21 FlightStats

4. Airport Chatter - New!

5. Airport Information

Travel Information Links

Traffic.com http://mobi.traffic.com

Amtrak

http://amtrak.com

FlightStats Mobile http://mobile.flightstats.com

Mobile.SeatGuru http://mobile.seatguru.com

i-Metro http://i-metro.mobi

HopStop www.hopstop.com/pda

NextBus www.nextbus.com

Yelp Mobile http://mobile.yelp.com

T-Mobile Locator http://locator.t-mobile.com/pda

Jiwire WiFi Finder http://wap.jiwire.com

Browsers

All Web-enabled phones are sold with an Internet browser or microbrowser preinstalled. Windows Mobile devices come with the default Internet Explorer Mobile browser, the Safari browser is installed on iPhones, the Blazer browser on Palms, and so forth. But there are also browsers that users can install themselves. OperaMini is a mobile version of the Opera browser, designed with mobile devices in mind. Opera Mini autosizes text and images on Web sites to the size of your phone; makes the content in them zoomable for a closer view; and offers a landscape mode view, a virtual mouse for scrolling, and power scrolling shortcuts. While the OperaMini browser does offer some encryption, if you want the best security for banking, and so forth, the full Opera Mobile browser is recommended. Opera Mobile has Flash support, zoom navigation, landscape mode, multiple windows, and tabbed browsing on some devices. Mozilla's Minimo browser is a small-screen version of the popular Firefox Web browser, which offers tabbed browsing, RSS, and widget support.

Browser Links

Opera Mini www.operamini.com

Opera Mobile www.opera.com/products/mobile

Minimo www.mozilla.org/projects/minimo

Beginner Tip #5: Make sure you know the details of your mobile carrier plan before you start texting and using the mobile Web!

News

According to the Newspaper Association of America, nearly 60 million people read an online newspaper in July 2007.12 While much of today's news can be accessed via mobile widgets such as Yahoo! Go and portal Web sites such as MSN Mobile, newspaper enthusiasts are still able get their fix by taking their papers to go on mobile devices. Newspaper heavyweights such as the Wall Street Journal, Washington Post, and Chicago Tribune offer readers local, national, and international news for the small screen along with the ability to e-mail stories to friends and contacts. USA Today offers a colorful interface and, along with the New York Times, provides the capability to send stories to friends by both e-mail and SMS text messaging to their cell phones. The Times' mobile Web site also offers registered readers the option to save their stories.

The nonprofit news and entertainment provider NPR (National Public Radio) enables its mobile Web site visitors to click to call in and listen to news stories or songs, as well as read transcripts of the radio shows. Dgm8 is a mobile version of the social news Web site Digg in which readers vote to determine the priority of news stories. Readers can share stories via SMS, e-mail, or Twitter; add them to favorites; or subscribe to receive text alerts.

News Links

MSN Mobile http://info.mobile.msn.com

New York Times Mobile http://mobile.nytimes.com

USA Today Mobile http://m.USATODAY.com

News Links (cont.)

Wall Street Journal http://wsj.com

Washington Post Mobile http://mobile.washingtonpost.com

Houston Chronicle Mobile http://mobile.chron.com

Chicago Tribune Mobile http://mobile.chicagotribune.com

Los Angeles Times Mobile http://mobile.latimes.com

NPR Mobile http://m.npr.org

C|NET News.com Mobile http://m.news.com

Dgm8 http://m.dgm8.com

Blogging

Mobile blogging, or "moblogging," is a popular on-the-go pastime that involves creating blog posts or uploading photos and video files to a blog from the author's cell phone. Bloggers can e-mail in text and photo posts to some of the major blogging platforms such as Blogger and Tumblr, which also allows video and MP3 files to be sent to users' tumblelogs. These posts are sent from an e-mail address linked with an existing blog and are automatically posted to the blog as they are received. Typepad bloggers can download software to create and edit text posts right on their phones as well as upload images and manage comments. Cell phones capable of accessing Mobile AIM can send IM messages to AOLJournal, and the messages will be immediately posted to users' blogs on the network. Nokia device owners may download the Lifeblog application, which enables them to manage and store their mobile multimedia files and post the files to a Typepad blog. Mobile bloggers can also e-mail their posts to moblogging Web sites, which allow them to easily post text, voice, photos, and videos to multiple blogging sites. Mobloggers can post text and multimedia files to MySpace, Blogger, Facebook, LiveJournal, and WordPress through the Utterz Web site community and other media sharing social networks.

Bloglines

[Mark All Read] 82 Feeds (337) (285)

Daily Feeds (163) (237)

- TechCrunch (26) (16)
- Micro Persuasion (1) (7)
- ReadWriteWeb (13) (32)
- WebbAlert (1) (2)

Figure 22 **Bloglines**

Blogging Links

Blogger Mobile www.blogger.com/mobile-start.g

Tumblr

www.tumblr.com

TvpePad Mobile www.typepad.com/features/mobile.html

AOL Mobile Blogs http://mobile1.aol.com/mobileaim/journals

LifeBloa http://r2.nokia.com/nokia/0,,86958,00.html

Utterz www.utterz.com

RSS Feeds

Reading RSS feeds on the go is as straightforward as navigating to your favorite mobile news aggregator and browsing your subscriptions. Major news readers, Bloglines (see figure 22), Google Reader, and NewsGator have all created mobile outposts from which users can access their feeds. Both Bloglines and NewsGator display links to individual feeds, while Google presents the most recent nine posts from all subscribed feeds. The Netvibes start page has also recently launched a mobile site with the same modular approach as its desktop Web page. Although there is more scrolling involved than with the readers mentioned above, this may be the preferred pick for those who want to view news headlines at a glance, yet still have them organized by feed.

RSS Feed Links

Bloglines Mobile www.bloglines.com/mobile

Google Reader Mobile www.google.com/reader/m/view

NewsGator Mobile http://m.newsgator.com

Litefeeds www.litefeeds.com

Netvibes Mobile http://m.netvibes.com

Food Ordering

Take-out has just gotten more efficient for cell phone owners as new services allow them to text in their favorite orders via SMS. GoMobo's New York City-based food ordering service enables callers to set up their preferred restaurants along with their regular orders and credit card information ahead of time. Their 5,000 users simply text in their order numbers when ready. 13 A similar service, Campusfood.com is available at over 300 college and university campuses and has over 1 million members. 14 Users of these free service don't need to have the restaurant phone number at hand, needn't wait on hold, or give out credit card information over the phone. Additionally, some restaurants which do not accept call-ahead orders will accept SMS ordering. Mobile owners can skip long lines in the morning by texting in their coffee order to Dunkin' Donuts, and save time at lunch by having their Subway sandwich made-to-order while they are still blocks away. And pizza lovers will be pleased to know that Domino's, Papa John's, and Pizza Hut have all rolled out SMS ordering capabilities.

Food Ordering Links

GoMobo http://gomobo.com

Campusfood.com www.campusfood.com

Domino's Mobile www.dominos.com/home/mobile.jsp

Papa John's Short Message Service www.papajohns.com/sms

Pizza Hut Mobile Ordering www.pizzahut.com/mobileordering

Microblogging

Keep your circle of friends updated with status reports, links, and short messages of up to 140 characters with mobile versions of popular microblogging applications. All three major services have launched mobile sites that can be accessed via a cell phone's Web browser, and both Twitter and Jaiku will allow you to text in your updates and receive friends' via SMS. Just see their help sections for the numbers and instructions. Additionally, Jaiku's new beta version for the Nokia S60 integrates the micro messages with your phone's contact list.

Microblogging Links

Twitter Mobile http://m.twitter.com

Jaiku Mobile http://m.jaiku.com

Pownce Mobile http://m.pownce.com

Mobile Web Quick Picks

Here are a few quick recommendations for interesting mobile Web viewing:

- ComVu PocketCaster lets mobile members broadcast live video footage from their camera phones to their blogs and other Web sites free of charge.
- Moviefone Mobile provides movie search on the go, offering showtimes, closest theaters, maps, and directions.
- Comeks enables texters to spice up their SMS messages by designing custom avatars to accompany their short messages.
- Soonr lets users remotely access documents and files from their PC or Mac desktop computers on their mobile phones for free.
- **Jott** lets users create hands-free to-do lists, e-mail messages, and blog posts via voice, which Jott transcribes.
- GrandCentral, now owned by Google, provides mobile users with one telephone number that rings all their phones and provides a centralized visual voice mail box that aggregates all their messages.
- Fring allows mobile users to make free calls via Skype and aggregates IM buddies from MSN Messenger, ICQ, Google Talk, Twitter, AIM, and Yahoo! for live chat.

• Google Docs Mobile lets cell phone owners take their documents to go with an easy-to-navigate Web site.

Orb's MyCasting enables users to access the music collections, photos, videos, and other media on their desktop PCs and broadcast them on their mobile devices.

Links for the Quick Picks

ComVu PocketCaster www.comvu.com

Moviefone Mobile http://wap.aol.com/moviefone

Comeks

www.comeks.com

www.soonr.com/public/web/front/home.jsp?

Jott

www.jott.com

GrandCentral Mobile http://m.grandcentral.com

fring

www.fring.com

Google Docs Mobile http://docs.google.com/m

Orb's MyCasting www.orb.com

iPhone Only Applications

iPhone applications are Web-based programs that have been built specifically for use with Apple's multitouch technology and 3.5-inch screen. These programs consist of well-known Web sites that have developed iPhone-only editions, such as the slick Facebook and Moviefone for iPhone applications, as well as new programs that were conceived of solely as iPhone-compatible applications. One such new application is the iRovr social network, a mobile community for iPhone owners, which enables media sharing, blogging, and social bookmarking. Another is the TextOnPhone program, which offers visitors access to more than 20,000 free e-books that have been formatted for their devices. The Web site has over 50,000 registered members and is similar to the Readdle book reader that gives iPhone users 50 MB of space to store their e-books and supports the Plucker format used by Project Gutenberg. 15

The PimpMyNews application lets users listen to print news stories that interest them by converting them into a customized daily podcast for their iPhones, iPods, or PCs. And the familiar iTunes application can be used in conjunction with the iPhone to sync up music libraries as with the iPod. Over 900 iPhone applications can be found on the official Apple Web site, and more than 1,700 on the AddFone search engine Web site. iPhone applications will soon be available through iTunes as well.

iPhone Application Links

Facebook for iPhone http://iphone.facebook.com

Moviefone for iPhone http://iphone.movies.aol.com

iRovr www.irovr.com

TextOnPhone www.textonphone.com

Readdle http://readdle.com

PimpMyNews http://pimpmynews.com

iTunes

www.apple.com/itunes/sync/iphone.html

iPhone Web Applications www.apple.com/webapps

AddFone www.addfone.com

iPhone Quick Picks

Here are a some quick recommendations the iPhone:

- Yelp Grub Finder for the iPhone lets hungry users search for restaurants in their area, call them, and retrieve directions and a map.
- **iZoho** brings the office to the iPhone through Zoho's suite of productivity tools designed specifically for Apple's device.
- · 101 Cookbooks delivers deliciously formatted recipes to iPhone owners.
- HarperCollins Publishers are letting iPhone users browse inside the pages of their books.

- Zagat has a free restaurant, hotel, and nightlife finder for the iPhone that enables users to send venues to friends via SMS.
- **Digg's** social news Web site is available on the iPhone with voting capabilities and slick browsing.
- webChattr enables users to set up their own live chat rooms to have real-time conversations with multiple friends on their iPhones.
- The Ferengi Rules of Acquisition-all 285 of themare now available for Star Trek fans to view on their iPhones.

Links for the iPhone Ouick Picks

Yelp Grub Finder for the iPhone www.bodesigns.com/projects/yelpV2.html

i7oho

http://mini.zoho.com

101 Cookbooks www.101cookbooks.com/iphonerecipes

HarperCollins Publishers: Browse *Inside for the iPhone* http://mobile.harpercollins.com

Zagat for the iPhone www.zagat.mobi

Digg for the iPhone http://digg.com/iphone

webChattr http://webchattr.com/go/thelounge

Rules of Acquisition for the iPhone www.ferenginews.com/iphone

Mobile Web Applications Resources and Reports

Arrington, Michael. "The Holy Grail for Mobile Social Networks." TechCrunch, Sept. 11, 2007, www.techcrunch .com/2007/09/11/the-holy-grail-for-mobile-social-net works (accessed Feb. 14, 2008).

Baig, Edward C. "Social Networkers Reach out More with Cellphones." USA Today, Nov. 13, 2007, www.usatoday .com/tech/wireless/2007-11-13-moible-networking_N.htm (accessed Feb. 14, 2008).

Balas, Janet L. "Of iPhones and Ebooks: Will They Get Together?" Computers in Libraries, Nov./Dec. 2007.

- Catone, Josh. "Is the iPhone the Ultimate eBook Reader?" ReadWriteWeb, Feb. 14, 2008, www.readwriteweb.com/archives/is_the_iphone_the_ultimate_ebook_reader.php (accessed Feb. 17, 2008).
- Dean, Samuel. "Five Unsung iPhone Applications—Most of Them Free." Web Worker Daily, Jan. 17, 2007, http://webworkerdaily.com/2008/01/17/five-unsung-iphone-applications-most-of-them-free (accessed Feb. 7, 2008).
- Kirkpatrick, Marshall. "Mobile MySpace on Sprint: Do Carrier Deals Make Sense?" ReadWriteWeb, Dec. 13, 2007, www .readwriteweb.com/archives/mobile_myspace_on_sprint _do_ca.php (accessed Jan. 3, 2008).
- Knight, Charles. "The 55 Piece Mobile Search Tool Kit." ReadWriteWeb, Feb. 20, 2007, www.readwriteweb.com/ archives/the_55_piece_mobile_search_tool_kit.php (accessed Jan. 3, 2008).
- MacManus, Richard. "5 Essential Mobile Web Apps." ReadWriteWeb, Nov. 15, 2007, www.readwriteweb.com/archives/5_essential _mobile_web_apps.php (accessed Jan 3, 2008).
- MacManus, Richard. "Mobile Social Networking: MySpace, Facebook, MSN the Leading Services." ReadWriteWeb, Aug. 16, 2007, www.readwriteweb.com/archives/mobile _social_networking.php (accessed Feb. 14, 2008).
- Malik, Om. "Multiply Social Network Comes to iPhone." GigaOm, Aug. 17, 2007, http://gigaom.com/2007/08/17/multiply-iphone (accessed Jan. 3, 2008).
- Pash, Adam. "Top 10 iPhone Applications." Lifehacker, June 29, 2007, http://lifehacker.com/software/lifehacker-top-10/top -10-iphone-applications-273407.php (accessed Feb. 17, 2008).
- Perez, Sarah. "The New Browser War: Mobile Firefox vs. Opera Mini." ReadWriteWeb, Jan. 28, 2008, www.readwriteweb..com/archives/mobile_firefox_opera_mini_new_browser _war.php (accessed Feb. 3, 2008).
- Stern, Allen. "PizzaHut Joins Papa Johns in Mobile Pizza Ordering; Is Mobile Food Ordering Here to Stay?" Center Networks, Jan. 16, 2008, www.centernetworks.com/ pizzahut-goes-mobile-order-sms-web (accessed Feb. 17, 2008).
- Strother, Neil. "Mobile Video: What Consumers Want to Watch on their Phones." Jupiter Research, Oct. 19, 2007.
- Strother, Neil. "US Mobile Marketing Forecast 2007 to 2012." Jupiter Research, Volume 2, 2007.

Notes

- Charles S. Golvin, "Which Generations Are Doing Mobile Data Activities, 2007," Forrester Research, Jan. 4, 2008.
- Thomas Husson, "Mobile Social Networks: Complementary Communication Tools for Online Social Networking," Jupiter Research, Sept. 19, 2007.
- 3. Julie Ask, "Mobile Social Networking: Enable Sharing and Connecting to Drive Use," Jupiter Research, Dec. 21, 2007.

- "Mobile Social Networking Has 12.3 Million Friends in the US and Western Europe", M:Metrics, Aug. 15, 2007, www .mmetrics.com/press/PressRelease.aspx?article=20070815 -socialnetworking (accessed Feb. 14, 2008).
- 5. Ibid.
- Nick Gonzalez, "Big Money for Mig33's Mobile Social Network,"TechCrunch, Jan. 28, 2008, www.techcrunch .com/2008/01/28/big-money-for-mig33s-mobile-social -network (accessed Feb. 1, 2008).
- Michael Arrington, "Zyb, The Mobile Social Network," TechCrunch, Aug. 21, 2007, www.techcrunch.com/2007/ 08/21/zyb-the-mobile-social-network (accessed Jan. 3, 2008).
- "Mobile Search Advertisers Up Spend," eMarketer, Sept. 12, 2007, www.emarketer.com/Article.aspx?id=1005356 (accessed Feb. 24, 2008).
- Julie Ask, "Mobile Internet: Leave the Browser at Home on the Desktop," Jupiter Research, Volume 3, 2007.
- "WidSets Has Emerged from Beta with New Features," Nokia press release, Nov. 13, 2007, www.nokia.com/ A4136001?newsid=1168081 (accessed March 18, 2008).
- "MobiTV Releases Mobile Television Advertising and Viewership Data," MobiTV press releases, Feb. 25, 2008, www.mobitv.com/about/press/releases/?page=press/ release_022508 (accessed March 8, 2008).
- 12. Jeff Sigmund, "Newspaper Web Sites Continue to Expand Medium's Footprint," Oct. 31, 2007, Newspaper Association of America Web site, www.naa.org/PressCenter/SearchPressReleases/2007/NEWSPAPER-WEB-SITES-CONT-EXPAND-FOOTPRINT.aspx?lg=NAAdotORG (accessed May 2, 2008).
- Sarmad Ali, "Text Messaging Speeds Up Fast-Food Orders," Wall Street Journal, Sept. 20, 2006, http://online.wsj. .com/article/SB115870978859668270.html (accessed Jan. 31, 2008).
- 14. "Penguin Young Readers Group's Pioneers Advertising Strategy with Campusfood.com for Nick Hornby's SLAM," CampusFood press release, Oct. 19, 2007, www .campusfood.com/press/penguin-books-promotion-SLAM .asp (accessed Feb. 17, 2008).
- "TextOnPhone and ITW Make Thrilling History with Unique Reading Content for TextOnPhone's 50,000 Users," PRLeap, Feb. 11, 2008, www.prleap.com/pr/114108 (accessed March 12, 2008).