On the Move with the Mobile Web: Libraries and Mobile Technologies
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About the Author

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Ellyssa is a published author and has written about emerging technologies and their applications in libraries for major library publications and scholarly journals. Her book *Web 2.0 for Librarians and Information Professionals* was published in February 2008. Ellyssa teaches professional development workshops and provides technology instruction throughout the country. She blogs at iLibrarian and InfoTangle.
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Imagine walking by a movie poster for the upcoming Harry Potter film and scanning it with a click of your camera phone in order to download associated ringtones, get showtimes, or even buy tickets. How about snapping a photo while browsing through a magazine to get a free sample of a new perfume? This may sound like science fiction right now, but in Japan, this type of mobile search technology is widespread, and in the United States similar services are already being developed, services that promise just this type of virtual engagement with the world around us. Think about the convenience of scanning the logo on someone’s Yankees cap to instantly receive the latest score from the game. This is what’s coming.

Today, most of us are using our cell phones primarily to download ringtones and check our e-mail, but there is an abundance of truly amazing services we can access through the mobile Web right now. Armed with a smartphone, PDA, or other Internet-ready mobile mechanism, users can retrieve local traffic information; check bus, train, and airline schedules; and look up weather reports. But more impressive, they can also access mobile social networks that will alert them when their friends are nearby; text in a pizza order to Domino’s; borrow e-books from their library; take a guided audio tour of a museum; and watch CNN. Through the mobile Web, people can download audiobooks, upload camera-phone photos to Flickr, receive turn-by-turn driving directions, and have in-store coupons delivered to them.

The computer, media player, and cell phone are all converging into a single device as manufacturers aim to provide a complete experience for the consumer. This evolution of handheld devices combined with new high-speed wireless data networks makes browsing the mobile Internet a more compelling experience. Much like the transition the Web experienced when broadband access became widely attainable, the mobile Web is turning a corner and becoming useful to the everyday user. While mass adoption is still in its infancy in this country, the landscape is developing quickly. Now is the time to get on board and on the move with the mobile Web.

The Mobile Web Defined

The mobile Web, simply put, is the World Wide Web accessed through a mobile device, ranging from a cellular phone to an iPod Touch. It includes the entirety of the Web and is not limited to Web sites that are specifically designed for mobile viewing. Handsets and mobile phones that have Web capabilities can search and browse the Internet from anywhere they can get a cellular signal. Web sites that are made especially for the small screen appear as scaled-back versions of their desktop counterparts, often with a numbered menu system for quick access to content. Web destinations that do not have mobile versions appear as if they were squeezed onto the tiny screen, and oftentimes have overlapping menus and links. If accessed by way of a search engine, a Web site may be “transcoded,” or have some formatting applied to it in an attempt to make it more viewable on a phone.

Who Are the Early Adopters?

Fifty percent of the world’s population, or 3.3 billion people, have mobile phone subscriptions, including 84% of U.S. residents. An era of mobile ubiquity has clearly arrived, yet only 16% of American cell phone owners regularly browse the mobile Internet, according to Jupiter Research. This number is exceedingly low when compared with other countries such as Japan, where over half
of mobile consumers consistently access the mobile Web. And not only access it, but wield it to pen bestselling novels and pay for purchases. The Pew Internet & American Life Project finds a slightly more optimistic outlook with its study, which shows 32% of Americans taking part in non-voice-related data activities such as texting, taking photos, and accessing the mobile Web on a daily basis, and 58% having tried their hand at these applications at least once.

In the United States, 9 out of 10 college students own a cell phone. Therefore, it’s not surprising that early mobile Web adopters include many from Generation Y, or users who fall into the 18–27 age range. Gen Y spends as much time on their cell phones as they do on the Internet for personal reasons, according to Forrester Research.

English-speaking Hispanics and other groups, such as African Americans, who have been slower to adopt the desktop Web, are the leading users of handheld data applications. On an average day, over half of Latinos and 50% of African Americans use their cell phones for an activity that requires the transfer of data. The use of mobile devices for non-voice-related tasks spans all income levels: in households with incomes averaging less than $30,000 per year, 44% of cell phone owners participate in data pursuits daily.

One significant use of mobile technology is for communication. Text messaging, or short messaging service (SMS) technology, is a way to exchange brief messages of up to 160 characters with other cell phone owners, while picture messaging—sending images from one mobile phone to another—is accomplished through the multimedia messaging service (MMS) technology. E-mail accounts can be accessed via mobile phones through Web e-mail, Microsoft Exchange, BlackBerryMail, and Enterprise servers and more. Mobile Web users can access instant messaging (IM) accounts such as AIM or MSN Messenger on their mobile devices to send and receive instant messages from their buddy lists.

Mobile phones can also be used to download various kinds of information and resources. Ringtones are customizable sounds or phone ringers, sometimes made from popular music tracks, that may be downloaded for use on mobile phones. Mobile games are widely available for download and offline play for cell phone owners, and music files may be downloaded onto most mobile devices, many of which double as MP3 players.

And increasingly cell phone owners use their mobile devices to search for information. Weather reports, breaking news, maps, and reference resources can all be found via the mobile Web.

**What Are People Doing with Their Mobile Devices?**

Handset owners are utilizing their mobile access for a variety of purposes, although currently the most popular data-related activities include text and picture messaging, downloading ringtones, e-mail, instant messaging, and games. Participation in these endeavors varies greatly across generational lines, yet tends to be lower among older groups (see figure 1).

**Benefits of the Mobile Web**

The mobile Web is the Internet for the small screen and therefore delivers many of the same rewards as its desktop counterpart:

- **Constant Connectivity**—Web-enabled mobile devices provide owners with around-the-clock access to the

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**Figure 1**