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MYTHS

About

PDAS

—Debunked!

"Many librarians are wondering how to approach PDA technology: Should we ignore it, just tolerate it, or embrace it wholeheartedly?"

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Hand-held, or wearable, technology is here for the duration. We know—we're hopelessly hooked. Our PDAs are the reality of our world; they are never more than a few inches away. The availability of convenient, mobile devices is only going to increase, and library users will expect us to support this technology, just as we adopted PCs for library functions a decade ago.

Many librarians are wondering how to approach PDA technology: Should we ignore it, just tolerate it, or embrace it wholeheartedly? Some of our fear and worry is real, but much of it is just hooy—and we librarians ignore this technology at our peril. We're here to debunk 10 of the most common PDA misperceptions. We think by the end of this article you will a) go out and buy yourself a PDA, b) get one for your library, c) think up something new to do with your PDA, or d) all of the above!

Myth #1: It's Just a Fad

Statisticians estimated that at the end of 2002 there were about 16 million PDAs worldwide (about 40 percent of them in the U.S.). Growth has slowed because of the currently weak economy and improved interfaces on mobile telephones, but that number is expected to increase to about 60 million in the next 5 years, as prices drop and more applications become available.¹

When something new eventually does come along, it will have many similarities to today's PDAs—it will be *personal* and *digital* and *assisting*, and probably much more. We know that voice-activated devices are just around the corner—instead of just telling your phone to "call Ed," you will be able to tell your PDA while you are driving, "milk, eggs, sugar, lettuce, ...," and have the list by the time you get to the store—or maybe the groceries will be ready to pick up at the drive-through

window. Mobile devices with Internet connectivity will be an increasingly integral part of daily life in coming years.

Myth #2: Only a Few People Have Handhelds

A research group found in March 2002 that nearly 10 million Americans are using mobile devices for Internet access.² That's more than a few! While the data indicate that they are not as ubiquitous as mobile phones (or just less noticed because they are not as noisy?), we are definitely seeing more of them. Like PDAs, mobile phone sales have also slowed, although current estimates are about 400 million in use worldwide (about 60 million in the U.S.).³

It costs less than \$1,000 for a PDA, including wireless connectivity and support, versus more than \$4,500 to connect and support a laptop. So, because an increasing number of companies are trying to cut costs, the mobile workforce is growing at a staggering rate. The market for this sector has spurred new competition, and many new devices and services are being developed. Many mobile phones now contain the kind of connectivity and screens that used to only be seen on PDAs, bringing the number of mobile users who can connect to the Internet ever higher.

Myth #3: They Don't Have Much to Offer Libraries

The use of hand-held technology, particularly in conjunction with wireless connectivity, allows librarians to give point-of-need service. Medical professionals are adopting PDAs so that they can get much-needed medical information while at the patient's bedside. They cannot lug the 3,000-page *PDR* (*Physicians' Desk Reference*) around with them, but they can carry it with them digitally or access it

wirelessly on a PDA. Why shouldn't we in libraries provide the same type of service to all our patrons—service *when* it's needed, *where* it's needed?

"If you make your services easy to use, patrons will become dependent on them (and your library!) early on."

Using a handheld, a patron can access the library catalog (see sidebar for a list of ILS vendors that currently offer this service), perform searches, and retrieve information. While possible from any model via hotsync, this ability becomes more fully viable in wireless models—all the more so if the library has implemented a wireless network. Some libraries are providing cradles and syncing points where patrons without wireless service can connect their PDAs to download information from the library or the Web.

Not only can patrons search the library catalog via their handhelds, but they can also use them to access databases that the library has purchased and made available to them. The library can make group purchases of PDA-accessible databases and e-journals that patrons could not afford or would not buy themselves. More and more e-books are becoming available—many for free. Ask yourself: How well do they match my users' needs? Which ones? What should my library's role be in matching patrons with these resources? Librarians can also exert an influence on the marketplace by working with vendors and telling them what library patrons need.

Many libraries are already offering hand-held services:

Arizona Health Sciences Library

<http://educ.ahsl.arizona.edu/pda>

Charles J. Keffer Library, University of St. Thomas (MN)

<http://www.lib.stthomas.edu/keffer/services/palm/palm.htm>

Duke University Medical Center Library (NC)

<http://www.mclibrary.duke.edu/respub/guides/pda>

Lincoln Trail Libraries System (IL)

<http://www.ltls.org/pda.html>

University of Alberta Libraries

<http://www.library.ualberta.ca/pdazone>

Virginia Commonwealth University Libraries

<http://www.library.vcu.edu/tml/bibs/pda.html>

From your Web site, you can provide links to resources that support PDAs, such as Palm and other hardware and software vendors, or to discussion lists such as Handheld Librarians (<http://groups.yahoo.com/group/handheldlibrarians>). You can also provide handheld software, a lot of which is available for free, if users only know where to look. Librarians who gain expertise can provide instruction for PDA use, and all libraries can support discussion groups in which users can share experiences with one another.

Patrons can also use PDAs to download key information about the library, such as hours, contact information, maps with directions to the library or floor plans of the collections, a calendar of events, or when books are (over)due. With some third-party software, such as AvantGo, patrons can download entire Web pages and even include several layers of links below them. Keep in mind, though, that these small devices have miniature screens and limited memory. Regular Web site graphics can be downloaded but don't always transfer well, and many patrons may choose not to include graphics on downloaded pages in order to save time and space. Therefore, be sure to design Web pages with an <alt> tag for each graphic.

Some add-on applications will allow a patron to download a Web form, fill it out on the handheld, and upload it at the next syncing. This might include an OPAC or database search or an ILL request form.

(However, forms that are behind logins and passwords or a firewall won't work!) With e-reference and e-reserves, libraries can provide instant service to handheld users at any time and from anywhere.

An important step in the process is for us to learn what products are available in the marketplace and what products are emerging—particularly “library-type” products. We can influence vendors to port their products to this platform. Some vendors are already providing products specifically designed for the PDA. With Ovid@hand, for example, users can create customized personal libraries of the journals that are important to them.

As more and more of our patrons have PDAs, they are going to demand these types of support from us. Do you want to be the one to explain to a senior faculty member why he can use his handheld to purchase a book from Amazon.com but not to request an ILL from the library?

Myth #4: They Don't Have Much to Offer Librarians

Even if you don't provide services to the public, PDAs can provide indispensable services for library staff. One of the most popular uses of the PDA from the beginning has been the agenda (datebook) function, with its alarms and reminders. For staff—such as administrators who must attend a lot of meetings—it can be a real timesaver. Another basic function

of the PDA is the address book. The calendar and address book information can be coordinated so that appointment locations and phone numbers can be inserted into the calendar without re-keying.

Most PDAs come equipped with a to-do list and a memo pad function, which allow you to take notes on just about anything—an article, a workshop, a conference, a sudden thought, etc. Add-on software allows you to use additional applications, such as Microsoft Office. You can create Word documents or Excel spreadsheets on the PDA and later transfer them to and edit them on your PC. (This article, for example, was drafted entirely on a PalmPilot and later transferred to Word for editing.) Likewise, you can create documents on your PC and quickly transfer them to your PDA for use out of the office. Adding an inexpensive (around \$80) keyboard turns the PDA into a very portable PC. The keyboard folds up to a size barely larger than the PDA itself.

Many PDAs have an infrared “beaming” function, which allows data and applications to be transferred over short distances from one PDA to another. You can transfer your business card (making it a quick and useful way to exchange information on the exhibit hall floor), a spreadsheet or Word document, or even an entire application.

Myth #5: There Are Too Many Kinds of PDAs to Support

There are really only three modes of PDA: small devices using text (phones and BlackBerry/RIMs), Palm-based devices using the Palm OS, and Windows-type devices using Windows CE or Windows PocketPC. If you develop services for the lowest (text-only) platform, it will work on all three. As the high-end platforms improve, users may be able to access some Web sites in their current form.

Take a trip to your local computer store and test some of these machines out. Trying to access your library's Web site will give you an idea of how much work it will take to adjust your Web services for mobile devices. Next, decide what services you'd like to make available, and write on index cards the information you'd like the user to see and search. This will force you to strip down your text to just

the essential phrases. For example, to use a mobile phone effectively, each screen needs to ask only one question, and by selecting an answer the user negotiates through a remote system. (For example, in response to a screen that reads, "What do you want to do?" a user may scroll through several choices: Search OPAC, Renew Books, Get Library Hours. If the user selects Get Library Hours, he or she may then scroll through another set of choices: Today, Tomorrow, Other.) Remember to keep it simple—these mobile connections are slow and still somewhat expensive. These users appreciate services that respect them as mobile clients and accommodate their devices' current limitations.

Myth #6: It's Expensive to Provide PDA Services

Well, providing any service can be expensive—but for handhelds it doesn't have to be! The cost is dependent upon the level of support you provide. Set some reasonable expectation of what you hope to achieve, and increase your service as your budget allows. You can choose to provide a) support for patrons who already own devices, b) PDA use for library staff only, or c) a supply of devices that can be lent out for use either within the library or outside it.

At the most basic level, you can support patrons by facilitating discussion on handhelds through interest groups, workshops, meetings, and presentations. You can also create Web pages that point users to related resources, as we mentioned previously. To facilitate access to library resources inexpensively, all you need are some staff time and expertise to ensure that library Web pages—or a selected subset of them—are PDA-accessible. For a little bit more money, you can establish a wireless network in the library, which will allow some PDAs (those with 802.11b connections) to access library and Web resources. A small wireless network is fairly inexpensive and painless to set up, and the cost of an 802.11b transmitter (or hub) is low. [Editor's Note: For more on wireless setup, see "Will the Flexibility of Wireless Solve a Problem for You?" on p. 14 in this issue; and in the October 2002 issue of *CIL*, see "Exploring Planet PDA" on p. 32 and "Planning for Those 'Unknown Unknown' Projects" on p. 38.]

If you want to invest in PDAs for staff use, the expense depends on how many staff members you want to support, and for what types of uses. Or, you can invest fully in PDA hardware and software and make them available for checkout to patrons just like any other resource.

**Start out simple.
Even if you just
make your library
hours available
and allow users
to search your
catalog, you
have a service!**

Of course, if you want to supply the devices—either for staff or patrons—there will be an upfront hardware cost. If you have limited resources, start by purchasing only a device or two. If your budget permits, you can purchase add-on software, accessories, subscription services, and advanced PDA features. Color, for example, is a nice luxury for some applications—and essential, or nearly so, for others. Another increasingly popular feature is wireless functionality. With wireless, the user can upload and download information without a physical connection to the network. Some devices have integrated cell phone technology in the unit.

Each add-on feature comes with a price tag—sometimes hefty. Now, while libraries are still catching on to this technology, a PDA project could be a subject of some successful grant writing.

Plenty of Web sites provide free tools for individuals or organizations to develop mobile applications and simulate their use without a handheld. Two important sites are PalmSource (<http://www.palmsource.com/developers>) and Openwave (<http://developer.openwave.com/support/techlib.html>). In just a few hours, either site can have even a novice HTML coder making cool PDA apps! Remember, even if you just make your library hours available and allow patrons to search your catalog, you have a service!

Myth #7: We'd Have to Provide Handhelds for Users

No, you won't have to buy a lot of handheld devices—the point is that soon many library users will have their own. In a university, the library may decide to provide handhelds to support the curriculum; this is a particularly popular service for medical schools. But in general this technology is personal—so most people want their own. The trouble is that once they've started using PDAs, patrons are really going to want one to do all the things in the library that we've mentioned in this article.

Myth #8: PDA Service Will Soon Become Obsolete

First, a couple of years is a lifetime in technology! But even so, this technology is here to stay—shrinking your Web site and

'Anywhere' OPACs

While a number of ILS vendors claim to be exploring how their OPACs can be adjusted to display on hand-held devices, only three advertise this possibility on their Web sites (as of Jan. 1, 2003). A number of others claim to have products "in the pipeline."

TLC/CARL's YouSeeMore includes access to an iPAC hand-held device.

Cuadra STAR's XML interface can be used for access by hand-held devices.

Innovative Interfaces has **AirPAC**, a catalog interface designed for wireless devices. Patrons with Internet-enabled cell phones or PDAs can search the OPAC, browse titles, and peruse bibliographic records or item lists.

offering mobile-accessible services is the future. Users' personal convenience is what this is all about, and someone else (a competitor) will offer the service if you don't.

Myth #9: No One Will Use the PDA Service We Provide

One good reason to adopt this technology now is to stay ahead of the curve. If you wait until users demand it, you may meet their expectations. But if you adopt the technology *before* they demand it, you will *exceed* their expectations. So, why not adopt now?

Besides, early deployers find that word spreads quickly, and users pick up these features quite fast—just as they did with the Web. If you make your services easy to use, patrons will become dependent on them (and your library!) early on.

Myth #10: No One Else Is Doing It

Though this technology has been around for a decade, libraries as a whole seem slow to adopt it. We are way behind other professions. But all the big Web sites are doing it: Amazon.com, CNN.com, Ask-Jeeves.... Why, if I can find out on my Palm whether a book that I'm about to buy at Borders is in stock at Amazon.com for a better price, can I not find out if it's on the shelf at my local library and place a hold on it? (See the sidebar for a list of folks you know who are already offering mobile services.)

There are many options when it comes to offering mobile services. But however you do it, do it you *must*. Just take a look at some of our competitors and some

other leading industries. What kinds of services are they offering? Two hours before a United flight, you can get your seat assignment, your gate information, whether the flight is on time, and whether your seat upgrade has been accepted—delivered *automagically* to your PDA. OpenTable lets you find a restaurant near you that has a table for the number of people in your party, at the time you want and in the price range you want. Movie-fone helps you find a movie; and CNN gets you weather and sports. But what can you get from your library channel?

So, go out there and catch the mobile wave. If you do, you'll be sending out the message that your library is sensitive to users' changing technological needs—and that they should consider it as essential to their daily lives as CNN. The actual cost of providing PDA service is low (unless you want to go into the hardware lending business), and the hardest part is *thinking small* (literally). So, shrink those services—mobile users like us are ready and waiting!



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To Contact the Companies

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<http://www.rim.com>

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