

Welch Medical Library PDA Task Force Report

Findings and Recommendations

February 14, 2005

Table of Contents

1.Executive summary.....	1
2.Reasons for PDA services development.....	2
2.1The JHMI community has an interest in PDAs and PDA services.....	2
2.2There is a need for PDA services at JHMI.....	2
2.3Welch has the skilled staff and institutional environment to develop PDA services.....	3
2.4Libraries have a role in PDA technology and services.....	3
3.Current PDA Services at Welch.....	5
4.Barriers and challenges to developing PDA services.....	6
5.Recommendations.....	7
5.1Teaching the need and relevance of PDA services to the JHMI community and library staff.....	7
5.2Establishing a forum for PDA services development and for promoting collaboration among Welch staff and the JHMI community.....	8
5.3Performing a user needs analysis of PDA users at JHMI.....	8
5.4Focusing on PDA information resources rather than PDA hardware support when developing services, policies and systems.....	9
5.5Developing a Welch Library web site for PDA viewing.....	10
5.6Providing training/promotions for free PDA information resources and setting up free trials for PDA resources.....	11
6.Appendix A: Mobile @ Hopkins Event Statistics.....	12
7.Appendix B: Licensing Models for PDA Resources.....	15

Report prepared by Jeffery Loo

PDA Task Force Members

Nic Cecchino	Electronic Resources Librarian, Digital Library Services
Jeffery Loo	PDA Task Force Chair, NLM Associate Fellow, National Library of Medicine
Cindy Sheffield	Instruction Coordinator, Information Services and Education
Holly Willis	Liaison Librarian, Communication and Liaison Services
Caroline Zambrowicz	Senior Programmer/Analyst, Advanced Technologies and Information Systems
Ming Zhu	Web Development Programmer, Advanced Technologies and Information Systems

Consulted with:

Jonathan Gold	Fellow, Division of Health Sciences Informatics
Mary White	Fellow, Division of Health Sciences Informatics
Barbara Koehler	Director, Collection and Document Services
Kathy Hackett	Training Program Manager, Information Services and Education
Dave Wright	Senior Reference Specialist, Information Services and Education (Lilienfeld Library)

Definition

For this report, a PDA (i.e. Personal Digital Assistant) is defined as a conveniently sized and mobile handheld computer used for information storage, communication, and processing. They include: Pocket PCs, Palm handhelds, Tablet PCs, Smartphones, etc.

1. Executive summary

Within the JHMI community, there is an interest in PDAs, as well as a need for PDA services. Fortunately, the Welch Library staff has the technical knowledge and skills to develop such services. Other medical libraries already provide PDA services, and they have demonstrated their value to library users. Therefore, the development of library services for PDAs is highly encouraged.

However, there are barriers to PDA services development at Welch. The barriers are analyzed in section 4, and they center on the lack of a Welch-wide plan for PDAs.

Currently, the library provides some services. They include basic PDA training, promoting PDA information resources, and sponsoring the annual Mobile @ Hopkins conference. There are many services that the library could be providing, as outlined in the earlier reports prepared by Jeff.

(Read the reports at <http://intranet.welch.jhmi.edu/intranet/committees/iscomm/index.cfm>).

To overcome the barriers and catalyze PDA library services development, the Task Force recommends:

- Teaching the need and relevance of PDA services to the JHMI community and library staff.
- Establishing a forum for PDA services development and for promoting collaboration among Welch staff and the JHMI community.
- Performing a user needs analysis of PDA users at JHMI.
- Focusing on PDA information resources rather than PDA hardware support when developing services, policies and systems.
- Developing a Welch Library web site for PDA viewing.
- Providing training/promotions for free PDA resources and setting up free PDA resource trials.

2. Reasons for PDA services development

2.1 The JHMI community has an interest in PDAs and PDA services

1. Hopkins created and maintains a PDA version of its antibiotic guide: The Johns Hopkins POC-IT Antibiotic Guide (<http://hopkins-abxguide.org/>). This is a nationally popular PDA tool.
2. The Office of Academic Computing (OAC) provides on their student home page a PDA software library (<http://student.med.jhmi.edu/content/avantgo.html>). OAC also has an AvantGo server to provide students with mobile and PDA access to mission-critical applications and data, such as e-mail and the student calendar.
3. The Matthews Johns Hopkins Medical Book Center has a PDA store. In partnership with another company, the store provides a complete selection of hardware and software for Palm OS and Pocket PC.
(Visit their store at: <http://webmedbooks.com/hopkins/default.aspx/id=10153/>)
4. Hundreds of JHMI members attended the Mobile @ Hopkins conference on PDAs and mobile computing. Fifty-four percent (54%) of those that registered own a PDA; that's 321 PDA owners! From a survey completed upon registration, the results show that PDAs are being used for data collection and reference referral at the bedside and in the classroom, as well as for personal information management. Also, the surveyed registrants were interested in learning more about PDA services at Hopkins. (See Appendix A for details of the survey results.)
5. JHMI members are performing research in the use of PDAs for clinical services and teaching. Some of these projects were presented in the sessions at the Mobile @ Hopkins conference.
(Read some of the session abstracts: <http://mobileathopkins.jhmi.edu/content/all-abstracts.html>)
6. The Chief Systems Architect for Johns Hopkins Medicine, Alan Coltri, endorsed PDAs in his presentation at Mobile @ Hopkins, stating that: "PDAs are a GOOD thing. [They are] portable windows onto the world. They will become permanent features of the environment. But in healthcare, they are the data viewing and capture portion of LARGE and highly integrated systems."
(See his presentation slides at <http://mobileathopkins.jhmi.edu/content/handouts/coltri.pdf>)

2.2 There is a need for PDA services at JHMI

1. PDAs make information resources available quickly and conveniently, offering the mobility that many health care professionals and students would *likely* need for their urgent information needs and busy schedules. Having spoken with a few medical residents, they have stated that sometimes they are too busy to go to a computer terminal to look up information and would appreciate the convenience of a handheld resource. Also, some nurses appreciate the handheld medical calculators. Spoke to a few other doctors who feel that PDAs would be a great tool for storing information that is difficult to remember but needs constant regular referral. Of course, this requires further study in a user needs analysis.
2. PDA services will help meet the following LCME Accreditation Standard for information resources and library services:

ER-12. The library and information services staff must be responsive to the needs of the faculty, residents and students of the medical school.

A professional staff should supervise the library and information services, and provide instruction in their use. The library and information services staff should be familiar with current regional and national information resources and data systems, and with contemporary information technology.

Both school officials and library/information services staff should facilitate access of faculty, residents, and medical students to information resources, addressing their needs for information during extended hours and at dispersed sites.

(from <http://www.lcme.org/functionslist.htm#information%20resources>)

Note: The Liaison Committee on Medical Education (LCME) is the nationally recognized accrediting authority for medical education programs leading to the M.D. degree in U.S. and Canadian medical schools. The LCME is sponsored by the Association of American Medical Colleges and the American Medical Association.

3. PDAs can help the Welch Library promote its Touchdown suite philosophy and the emerging role of the informationist. PDA information resources on a wireless handheld can provide information quickly and more conveniently at the point of need. This is important for the distributed JHMI environment, where the library or computer terminal may not be nearby.

4. There is a need to promote PDA information services. A faculty member, who wrote to the Mobile @ Hopkins coordinators, noted that several medical students who attended the conference went in with no idea what resources were available and the types of services and research that Hopkins had to offer.

2.3 Welch has the skilled staff and institutional environment to develop PDA services

1. Welch staff members have the technical skills to develop PDA tools and services. ATIS programmers have created a prototype web page for PDAs that provide general library information. A patient data collection and tracking tool has been created for medical residents by ATIS for OAC.

2. Welch staff members are knowledgeable of PDA services. Welch has experience in the past in providing PDA training. Welch staff also has prior experience in liaising with the different schools on PDA services.

3. JHMI's wireless environment allows wireless PDA users to access the Internet. This is an opportunity for providing library resources.

4. OAC, the Office of Academic Computing of the School of Medicine and Johns Hopkins Health System, has an AvantGo server. This server lets you create mobile websites for handheld personal digital assistants (PDAs), smartphones, and other mobile devices. It may be possible that Welch could collaborate with OAC to develop a mobile Welch website.

5. OAC also provides limited PDA technical support for the School of Medicine.

2.4 Libraries have a role in PDA technology and services

1. Libraries providing convenient information access through PDAs may improve evidence-based health care. In a seminal paper by Sackett and Straus, they studied the efficacy of an "evidence cart" (which contains multiple sources of evidence and the means for projecting and printing them) during clinical rounds. They found that "[m]aking evidence quickly available to clinicians on a busy medical inpatient service using an evidence cart increased the extent to which evidence was sought and incorporated into patient care decisions." If it worked on an evidence cart, why not a PDA?

Sackett DL, Straus SE. Finding and applying evidence during clinical rounds: the "evidence cart". JAMA. 1998;280(15):1336-8.

2. The National Library of Medicine has developed 4 reference tools for PDAs:

PubMed for Handhelds <<http://certif.nlm.nih.gov:8080/nlm/>>

PubMed on Tap <<http://archive.nlm.nih.gov/proj/pmot/pmot.php>>

WISER (Wireless Information System for Emergency Responders) <<http://wiser.nlm.nih.gov/>>

NCBI Bookshelf PDA Books (free biomedical texts available for MobiPocket readers, currently in production)

3. Many other academic medical libraries are providing PDA services and training, and have done studies on the library's role in PDAs. Here are some interesting reviews:

PDAs and Handhelds in Libraries and Academia <<http://web.simmons.edu/~fox/PDA.html>>

PDAs for Health Care Providers <<http://educ.ahsl.arizona.edu/pda/index.htm>>

4. Introducing medical information resources for PDAs may be an important factor in preparing future health care workers for technologic innovations in mobile computing. (Bass SG. Wireless computing. Medical student and mobile medicine. MD Comput 2000;17(6):27.)

3. Current PDA Services at Welch

Currently, there are some PDA services provided by the Welch Library:

1. Organizing the Mobile @ Hopkins conference is powerful and extremely useful PDA service of the library. However, many JHMI members did not attend (maybe they couldn't because of class schedule conflicts, which might explain the relatively few students who attended). It would be ideal to provide PDA training and promote awareness of services in different settings and periods.
2. The library provides PDA classes in its Training Program for a fee of \$125. Two courses are offered: an introduction to PDAs and another class on advanced features.
3. There are free PDA classes as well. The Training Program provides some classes in its free structure. Also, education and liaison librarians provide some PDA resource instruction during their EBM classes and in the Welch Lecture Series.
4. Through OAC, ATIS staff have developed some PDA tools for patient data collection and tracking for the School of Medicine. These tools have been used in four different clerkships: Ambulatory Medicine, Gynecology/Obstetrics, Pediatrics, and Surgery.
5. Welch has a subject guide on PDA resources. However, it has not been updated for a while. (See <http://www.welch.jhu.edu/internet/pda.html>)

4. Barriers and challenges to developing PDA services

A) PDA services are not a high priority in library services development.

The exception is the Mobile @ Hopkins conference.

B) The library lacks a forum for Welch staff and the JHMI community to work together and develop PDA services.

In the past, a PDA user group was formed at Welch Library. Over time, attendance dwindled and the group disbanded.

C) JHMI PDA user needs are not well understood.

There are many PDA services that Welch Library can implement, as outlined in the reports and recommendations available on the Intranet at:

<http://intranet.welch.jhmi.edu/intranet/committees/iscomm/index.cfm>

However, to warrant the cost and effort to developing a service, the library needs to know the needs and interests of JHMI users.

Some studies have been performed by Welch staff. A good example is the registration survey from the Mobile @ Hopkins conference (see Appendix A). However, this survey has a strong sampling bias because respondents must have been interested in attending the conference in the first place and/or the respondents are somewhat knowledgeable with PDAs already. Also, Holly Willis has conducted a PDA user survey in the past, presenting the results in an MLA 2003 poster (http://www.welch.jhu.edu/about/mla2003/PDA_survey.pdf). An updated survey could be performed to understand user needs today.

A JHMI-wide PDA user group was formed in the past in order to promote PDA usage and provide a forum for communication of PDA needs, issues, and ideas. Interest amongst its members waned, and the user group disbanded.

It is already known that user needs and interest in PDAs vary from school to school and department to department at Hopkins. The decentralized environment adds to the complexity of understanding user needs. Take this example of how different groups can vary dramatically in their needs and interests:

When librarians spoke to the emergency medicine residents in the hospital, they were extremely enthused to learn about PDA services. So much so, the residents returned to the library the following week to learn more. This piqued the interest of the faculty who then sought to learn more about PDAs. Compare this situation to a free class the library offered on pharmaceutical PDA resources. The class experienced very low registration, despite the expected need JHMI members would have for such tools. A user needs analysis would help answer questions about this situation: Are people too busy to leave their labs and clinics to attend a class in the 2024 building? Or, do they already know a lot about pharmaceutical resources? Perhaps, users prefer classes being taught near their offices and labs? Or, is it some other factor altogether?

D) There are strong concerns regarding the sustainability of PDA services, particularly with the (1) human and technical resources required for service deployment, and the (2) rapid rate that PDA technology is changing.

Every library department consulted for this report expressed these two concerns.

5. Recommendations

The recommendations do not form a proposed philosophy of PDA services at Welch. To get to this level, we'll need to create a PDA forum and conduct a user needs analysis beforehand.

5.1 Teaching the need and relevance of PDA services to the JHMI community and library staff.

PDA's are fast becoming an important tool for many health professionals. Their usefulness and value have been studied in the literature, for example:

- Barrett JR, Strayer SM, Schubart JR. Assessing medical residents' usage and perceived needs for personal digital assistants. *Int J Med Inform.* 2004 Feb;73(1):25-34.
- Fischer S, Stewart TE, Mehta S, et al. Handheld computing in medicine. *J Am Med Inform Assoc.* 2003 Mar-Apr;10(2):139-49.
<http://www.pubmedcentral.nih.gov/articlerender.fcgi?tool=pubmed&pubmedid=12595403>

However, there are many who are not enthusiastic about PDA's and PDA services. From my experience (Jeffery Loo's) talking with JHMI members about PDA's, the unenthusiastic fall into two groups:

- Group 1: people who are unfamiliar or uncomfortable with PDA technology, and
- Group 2: people who don't see how PDA's could be useful (outside of the personal information management domain) as a reference information tool.

Perhaps, the library has a role to help these two groups learn about the need and relevance for PDA's in the health profession:

- To address Group 1, those unfamiliar with PDA technology, the library could provide basic PDA instruction. Show users that PDA's can be useful, easy to learn, and safe. To win them over, it may be necessary to promote non-library functions and services that are fun and useful, such as:
 - **Vindigo** (www.vindigo.com) for map services and entertainment recommendations
 - **AvantGo** (www.avantgo.com) for free headlines from major newspapers or magazines, weather forecasts, etc.
 - using a PDA for listening to music or as a voice recording device
- To address Group 2, those who don't see the relevance of PDA information services, the library could demonstrate PDA reference tools to users, and promote trial services on WelchWeb. This will encourage users to explore medical textbooks, drug guidebooks, and other useful handheld medical databases.

Perhaps at the next Mobile @Hopkins conference, there could be a roundtable for PDA experts and enthusiasts to explore ways of effectively promoting PDA information services throughout the institution.

5.2 Establishing a forum for PDA services development and for promoting collaboration among Welch staff and the JHMI community.

A forum for Welch staff in education, liaison, and systems would be ideal. Each group needs the other to identify user needs, to develop systems and services, and then to train users and promote the services. Collaboration may extend beyond the Welch Library to those in the JHMI community working on PDA projects, such as the Johns Hopkins POC-IT group (Johns Hopkins Point of Care Information Technology <<http://www.poc-it.org/>>).

5.3 Performing a user needs analysis of PDA users at JHMI.

An extensive user needs analysis is an important step to take. Results from this analysis will set the direction for PDA services development. It will justify the cost of creating and providing the services.

Some opportunities for studying user needs include:

- Evaluate the user needs analysis and program evaluations of other academic libraries. The University of Alberta has some good documentation on their research:
 - http://www.library.ualberta.ca/staff/denise_k/index.cfm
 - Carney S, Koufogiannakis D, Ryan P. Library Services for Users of Personal Digital Assistants: A Needs Assessment and Program Evaluation. Portal. 2004;4(3):393-406.
 - www.thealbertalibrary.ab.ca/netspeed/netspd2003/presentations/A4_Ryan_Kouf.ppt
- Create focus groups.
- Take advantage of Mobile @ Hopkins. Currently, the conference's registration survey provides important user data. Further needs analysis opportunities include: (1) a follow-up or post-conference survey, (2) roundtable discussion sessions would be a useful forum for discussing service needs.
- Demonstrate free or trial PDA information resources (such as JournalToGo, Wiley InterScience Mobile Edition, and the Johns Hopkins ABX guide) and then survey users on their experiences and opinions.
- Install free institutional trials of PDA resources. Before the user can install the resource, survey the users on their PDA expectations and needs and then follow up with a post-trial survey.
- Survey users of "full-sized" database resources and ask if they would like to use the PDA version of the tool (such as Pocket PC version of UpToDate)

5.4 Focusing on PDA information resources rather than PDA hardware support when developing services, policies and systems.

Developing PDA user services should focus on (1) providing information resources at the point-of-need and (2) providing PDA instruction. Less of a priority is hardware support, such as lending hardware, facilitating purchasing decisions, and providing extensive technical support. These hardware services are a challenge for the library due to the rapid rate of PDA technology development. This approach of “focusing on the resource and not the container/medium” is similar to the one for electronic journals.

The Office of Academic Computing (OAC) provides PDA technical support for the School of Medicine’s patient tracker applications and some other applications as they are able. For the other JHMI institutions, it is uncertain whether there will be technical support from their respective IT departments.

Technical support is a very complicated issue that needs further study. It would seem reasonable that staff and students learn how to use their PDA themselves, as they currently would with personal computers. A question to look into: Are the technical demands of PDAs more advanced than PCs and laptops to warrant a devoted PDA technical support service at JHMI?

On the other hand, hardware support for library staff is important. The staff needs up-to-date PDA hardware to provide instruction and to learn and explore PDA resources and services. In order to answer users’ questions effectively, the staff also need comprehensive training in the hardware and the technology.

Many medical information resources are available for the PDA, as outlined below:

1. Many resources are free and the library could quickly begin promoting them and providing instruction.

Here are some popular free PDA resources that the library could promote:

- Wiley Interscience Mobile Edition (http://www3.interscience.wiley.com/mobile_edition/)
- PubMed for PDA (<http://nmlm.gov/scr/scnn/sep-oct03/pdas.htm>)
- JournalToGo (<http://www.journaltogo.com/>)
- Epocrates has some free services (<http://www2.epocrates.com/>)

2. The licensed resources require more time to develop. With the high costs and complexity of electronic resources licensing, a lot of research is necessary to justify the expense and the effort of a PDA resource acquisition.

Currently, hospital staff have licensed access to *mobileMICROMEDEX*, which provides comprehensive, independently reviewed drug information. This resource was purchased by the Johns Hopkins Hospital. Also, the JHMI community has access to FIRSTConsult Handheld through its institutional license to FIRSTConsult.

The library needs to begin researching the licensing and cost issues, perhaps by:

- Contacting other libraries about their licensing of PDA resources
- Contacting PDA resources vendors about their licensing agreements

For an introduction to PDA resources licensing refer to the following article preprint (particularly page 6, and see also Appendix B for an excerpt/summary):

- Koufogiannakis D, Ryan P, Dahl S. Just Another Format: Integrating Resources for Users of Personal Digital Assistants. *The Acquisitions Librarian*. 17(33/34): *not yet published*. Preprint available: (http://www.ualberta.ca/~pryan/AcqLib17_33_34.pdf)

Here are some popular licensed resources the library could explore for acquisition. (Other medical libraries have experience providing these resources to patrons.)

- InfoPOEMs/InfoRetriever
Searches eight databases at once: POEMs, Cochrane Database of Systematic Reviews, 5-Minute Clinical Consult, plus clinical decision rules and calculators, and summaries of evidence-based guidelines.
- PEPID (Portable Emergency and Primary Care Information Database)
Several versions available:
 - ED: Emergency Medicine Suite - Emergency Physicians and Residents
 - PCP: Primary Care Plus - Physicians, Residents and Dentists.
 - RN: Clinical Nursing Suite - Nursing and Allied Health
 - CRC: Clinical Rotation Companion - first and second year Medical Students.
 - PDC: Portable Drug Companion Suite - Pharmacy

Here are some libraries that provide the above licensed information resources for PDAs:

University of Rochester Medical Center

<http://www.urmc.rochester.edu/hslt/miner/resources/pda_resources.cfm>

Virginia Commonwealth University

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

University of Virginia

<<http://www.healthsystem.virginia.edu/internet/library/services/computing/pda/medsoft.cfm>>

University of Alberta

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

5.5 Developing a Welch Library web site for PDA viewing.

Welch has developed a prototype web homepage for PDA viewing. This page could be put into full production, or serve as a model for later development. A PDA web page will provide alternative means to access Welch and it will market the library as a PDA expert.

The prototype WelchPDA page includes the following:

- Library news
- Contact info and library liaison contacts
- Tables of contents for the top 5 ejournals
- Reference question forms
- Information on eLearning resources, the Welch Lecture Series and PDA resources
- Access to PubMed
- Johns Hopkins Science Calendar (of events)
- Proxy Server (RAUL) Info

Collaboration with OAC would be necessary in order to use their AvantGo server.

5.6 Providing training/promotions for free PDA information resources and setting up free trials for PDA resources.

As outlined earlier, setting up free trials for PDA information resources is important for acquiring user needs and for conducting acquisitions research. Free trials are highly encouraged.

PDA resource training can take many forms: brown bag lunches, in-class library orientations, eLearning guides, Welch lecture series, etc. The training needs to be flexible and adaptable to the different levels of users:

- Novice users require basic instruction
- Intermediate users may be interested in information resources
- Advanced users may be interested in developing PDA services and tools

Promotion of services can be achieved through advertising on the LCD screens throughout campus. Also, WelchWeb can improve access to PDA resources by providing a PDA category for organizing electronic resources in WELMA.

6. Appendix A: Mobile @ Hopkins Event Statistics

Mobile @ Hopkins Data: Attendance and Attendee Profiles

Please see the next page.

Please see the file: [Mobile@HopkinsRegistrants.pdf](#)

Popular sessions by session registration

Most popular sessions (top 2 to top 3) by conference periods.

Period	Session	Number of Registrants
9 – 10 am	Intro to Handheld computing	207
	PubMed in Your Pocket ... Medical Research at Your Fingertips	85
1 – 2 pm	Wireless @ Home, Security and Terminology A presentation of wireless at home and security terminology as it applies to the enterprise campus.	184
	Getting Started with PDAs (Hands on)	128
2 – 3 pm	Databases and Other Applications	124
	Invasion of the Handhelds Abstract: When operating in an institutional environment these systems (handheld systems) must meet the same standards of development, testing, and records integration as traditionally deployed systems. The nature of some of these requirements will be discussed, with emphasis on the unique attributes and challenges presented by the handheld devices.	97
	Tablet PCs in the Classroom: High Tech Gadget or Useful Tool	94
3 – 4 pm	Use of Wireless PDA Devices with Hopkins Email Systems	193
	Evidence Based Medicine and Information Databases for Handhelds	83
	Mobile Devices to Enhance Classroom Instruction	73

Top ranking sessions by user satisfaction and user evaluation of informativeness

The top ranking sessions generally (1) introduce PDA technology or (2) provide examples of how PDAs can be used to improve work life:

- Handhelds in Nursing (van de Castle)
- Evidence Based Medicine and information databases for handhelds (Vogel)
- Mobile Health Computing Technology in the Surgical Rounding Process (Awad)
- Invasion of the Handhelds (Coltri)
- A Day in the Life of an NP and her Pocket PC (Selway)

These results have a strong subjective bias as well as a sampling bias.

7. Appendix B: Licensing Models for PDA Resources

An excerpt/summary of:

Koufogiannakis D, Ryan P, Dahl S. Just another format: Integrating resources for users of personal digital assistants. *Acquisitions Librarian*. 17(33/34): accepted for publication. Preprint available at: <http://www.ualberta.ca/~pryan/AcqLib17_33_34.pdf>

1. Free with existing licensed product

PDA content is free with the subscription to an existing licensed product.

eg, eMedicine <<http://www.emedicine.com>> (known as iMedicine for institutional subscribers).

2. User add-on purchase

Library users may independently purchase a PDA add-on if the library has an existing subscription or site license to the online product.

eg, Harrison's on Hand (HOH) <<http://harrisons.accessmedicine.com/>> has a discounted price deal for individual subscribers whose institutions have a site license to Harrison's online.

3. Institutional site license

An institutional site license is available for the PDA product with a set yearly cost, allowing as many downloads as required. This is not a very popular option with publishers at this time.

eg, PEPID, InfoRetriever <<http://www.infopoems.com/>>, and Landes Bioscience.

4. Set number of downloads

The library must purchase a set range of downloads, often as an institutional add-on to an existing online product.

eg, OVID@hand <<http://www.ovid.com>> and PDXMD <<http://www.pdxmd.com>> which group numbers of users by 1-100, 101-250, etc., or charge a set rate per PDA download.

5. Electronic loaning with due dates

The library subscribes to an e-book system that allows loaning of PDA-compatible titles that expire after a set time period. A library user would download an e-book to the device of their choice (PDA, PC, laptop), with access expiring following the set borrowing period.

eg) systems such as libwise <<http://libwise.com>> and OverDrive <<http://www.overdrive.com/>>

6. Loaning Books the Size of Postage Stamps

Purchase e-books on expansion cards for loaning.

eg, many books available from Franklin Electronic Publishers <<http://www.franklin.com/ebooks/>>