BRIEF COMMUNICATIONS

Adapting a new technology to the academic medical library: personal digital assistants

By Russell Smith
russells@usc.edu
Information Specialist

Norris Medical Library
University of Southern California
2003 Zonal Avenue
Los Angeles, California 90089-9130

As information professionals, librarians are concerned with staying ahead of the technology curve. Whenever a new information technology emerges, librarians invariably appropriate it and adapt it to the library setting. This paper describes the efforts of the University of Southern California (USC) Norris Medical Library to exploit the recent explosion of interest in personal digital assistants (PDAs) to support the information needs of its user population.

When confronted with an innovation as profound as the PDA, information specialists are challenged on a number of levels. The first requirement is to master the new technology. Next comes teaching others how to use it. Finally, information specialists must develop or provide PDA-deliverable content for the user population. The author of this paper accomplished the first goal, while the second and third objectives were achieved through collaboration with other library staff and with other departments of the USC School of Medicine.

In the spring of 2000, the Norris Medical Library sponsored a ''Medical Informatics Seminar'' on the topic of PDAs. The USC health sciences community responded overwhelmingly. To a standing-room-only crowd of approximately seventy people, the presenters demonstrated the most basic functions of handheld computers with some mention of medical applications. The audience included students, faculty, and staff, who displayed high levels of interest in the topic by raising numerous questions during the course of the seminar. The success of the seminar and the enthusiasm level of all participants was a strong incentive for the library to start a program devoted to PDAs and mobile computing.

In the summer of 2000, the library established a Palm User's Interest Group with various departments in the School of Medicine. Members included third- and fourth-year medical students, School of Medicine faculty, and staff from the office of the dean for student affairs. From the library's perspective, this group proved beneficial on a number of levels. Of primary concern was the desire not to duplicate the efforts of other departments in this area or to operate at cross-purposes. For instance, one faculty member managed a Website that provided instructional materials and schedules for first- and second-year students. Although he had already begun to post PDA-related links to this Website, it was agreed that the library would absorb the majority of the responsibility for this area.

The interest group served as a mini focus group, allowing the library to monitor the interests of the different segments of the Norris Medical Library user population, to gauge levels of proficiency, and to pick up new ideas and tips. The group also helped to advertise and promote the activities of the library to the medical school community. By spearheading an effort to incorporate the new technology of PDAs into the medical school's culture, the library also increased its visibility in the community as a whole.

The ubiquity of the Internet made it a convenient and logical place to begin a project involving both user education and delivery of services. From the Norris Medical Library home page, a site was created for medical applications for PDAs. Initially, this site was divided into three sections: devices, applications, and a section entitled Tips, Links and Discussion Groups. The section about devices provided links to the major manufacturers of PDAs based on their operating systems (PalmOS or WinCE). The section about applications provided links to add-on programs to enhance PDA performance. These links were further subdivided into general applications, medical applications, and games. The third section contained text authored by members of the medical school community, along with links to other sites devoted to PDAs and medicine.

The Norris Medical Library's PDA Website is reorganized and reevaluated on a continuing basis. New links are added, and others are deleted, but the basic organization remains the same. This site will also serve as a platform to launch PDA-deliverable content to the medical school community. When first initiated, the Website was highlighted in the Spotlight section of the library's homepage, so that visitors to the top-level page would find a directional icon to take them directly to the PDA site.*

Coinciding with the development of the PDA Website, the Norris Medical Library also offered a workshop during the fall 2000 semester on basic and medical applications for PDAs. Following a demonstration rather than a hands-on format, the class began by discussing built-in applications, such as the calendar, address book, memo pad, and to-do list. The second half

*The Norris Medical Library personal digital assistant Website may be viewed at http://www.usc.edu/hsc/nml/lis/tutorials/pdas.html.

of the class compared and contrasted medical applications. Covered topics included patient-tracking software and medical and drug information resources. Rounding out the curriculum was a discussion of systems-related issues, such as performing synchronization operations, adding programs, and working with Web browsers (such as AvantGo).

Attendance levels at the workshops varied from three to twelve attendees. Knowledge levels of the attendees varied as well, from complete novice to savvy users. This variety led the library to consider offering two courses, instead of one. The first would be geared to new users of PDAs, and the second would be devoted to more experienced users and would focus more heavily on medical applications.

The PalmPilot emulator is a valuable tool for both the development and implementation of this class. Offered free of charge through the Palm, Inc., Website,† the emulator software mimics the hardware of PalmOS platform devices. Once loaded on a computer drive, the emulator is a valuable teaching tool, particularly when used in conjunction with a computer screen projector. On the down side, the emulator can be a bit temperamental and prone to crashing. Despite these drawbacks, it is an excellent educational device to demonstrate applications for the Palm.

The Norris Medical Library continues to pursue an aggressive agenda regarding PDAs. Recently, the library purchased Palm VIIx® PDAs for each member of the professional staff, and many of the librarians use the wireless Internet capabilities of the devices. Additionally, all those who were issued PDAs are required to synchronize their calendars to the library's systemwide calendaring system. The library's goal is to facilitate the integration of handheld technology into the culture of the university's health sciences campus. Library personnel's use of PDAs in the course of campuswide activities should help promote this goal. Beyond the productivity benefits for the library, the staff believes this effort will improve the librarians' visibility as proactive, technologically savvy members of the medical school community.

Regionally, the Norris Medical Library also seeks to increase the knowledge level of other medical librarians in this exciting area of information technology. Plans to further this aim include a continuing-education program for the Medical Library Group of Southern California and Arizona. The library's PDA Web page has also been beneficial in getting the word out to other information professionals, not only in Southern California, but also nationally. Information professionals who browse randomly have begun contacting the library via email and telephone, seeking advice on the development of PDA programs for their libraries.

The Norris Medical Library's commitment to handheld technology provides an example to other libraries of a process for exploiting a new technology for the benefit of both the library and its users. Because PDA technology is in a constant state of flux, one may be tempted to adopt a wait-and-see approach before embarking on such a program; however, to do so runs the risk of falling behind the medical community. PDAs have the potential to revolutionize not only the world of libraries, but also the entire world of information technology.

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†The Palm, Inc., Website may be viewed at http://www.palmos.com/dev/tech/tools/emulator/.