

Medical palmistry

Creating hyperlinked documents for the small screen

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Generalists in medicine, particularly those in family practice, have to cope with volume overload when it comes to information. Because we do not have an exhaustive mastery of every topic in medicine, we must develop tools to help us when information we have not completely mastered is urgently required at point of care. Although computerized access to knowledge has substantially improved information retrieval, this knowledge is not always immediately available or organized for instant access. The personal digital assistant (PDA) has the potential to be a quick and appropriate source of information if care is taken to select and present information carefully.

The use of the PDA in medicine has been very much a bottom-up phenomenon¹ and, despite present incorporation in student and residency programs,^{2,3} each physician uses the PDA in a different way. Most physicians, however, underuse PDAs because we do not optimize our control over the data going into these devices. We do not participate in data input and we tend to do poorly with data retrieval as well, either because we do not know what information is available or because we cannot easily navigate the small screen.

This paper will describe how to organize and input data into a PDA, using hyperlinks to easily navigate a small screen. This process will allow users to search for required data knowing, rather than hoping, the data are there. This practice has allowed me to input information to suit my own unique areas of ignorance and use it at point of care. With repeated use, the material is often sufficiently learned to allow deletion of the topic.

The text reader

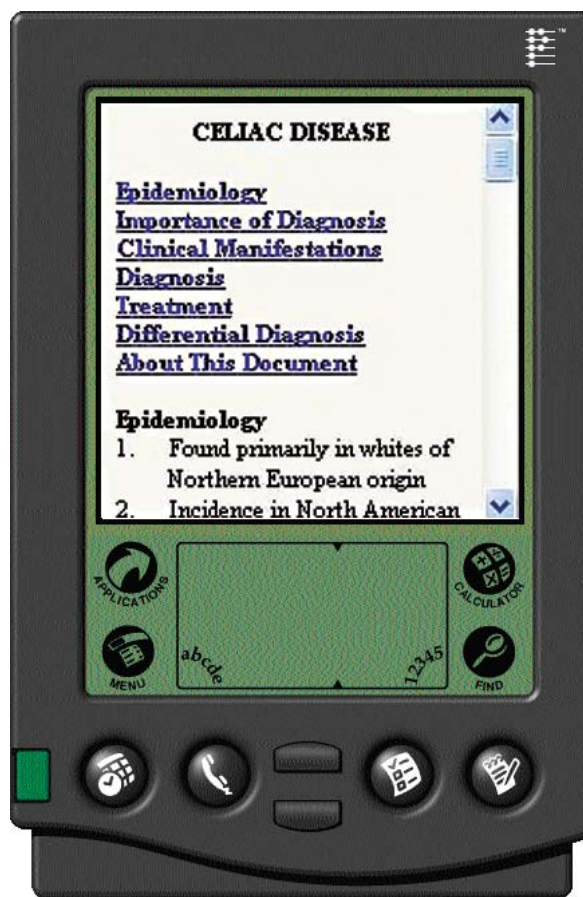
The text reader used for this discussion is iSilo. It is available for both Palm and Pocket PC format. Like the PalmPilot, iSilo has been one of the most popular platforms for medical applications for many years.³⁻⁵ Collections of applications for this platform can be found on the Web at the elegant Meistermed site (www.meistermed.com/isilodepot/index) and the Healthy PalmPilot site (www.healthypalmpilot.com), among others. This program is capable of capturing webpages from computer files or from the Internet and putting them into PDA format without loss of hyperlinks and bookmarks. It is capable of reading hyperlinks through several layers of webpages. It can handle

tables and graphics, although you need to be mindful of the limitations of the PDA's screen size. Documents formatted for iSilo carry the "pdb" extension.

A trial version of iSilo is available for 30 days as free-ware; however, if you wish to continue to use the hyperlink, bookmark, and tables and graphics capabilities, then you must register for the sum of \$19.99 (US). The iSiloX application is a companion graphical user interface, which can be downloaded free of charge; it is suitable for both Windows and Macintosh systems. The latest version of iSilo (for the PDA) and iSiloX (for the host computer) can be downloaded from www.isilo.com; iSilo is now available in version 5.02. This utility is highly recommended.

Creating a hyperlinked document

The following outline explains how to make hyperlinked documents for a PDA:



Step 1. On the host computer, organize your material by creating headings, which can subsequently be used as bookmarks and hyperlinks.

Step 2. Insert your text (ie, the information you will want to reference) into the organized framework using Microsoft Word or similar word processing software. It is possible to indent and assign numbers or bullets for clarity, but remember that you sacrifice some screen space when doing so. A single level of indentation at most is practical, and often no indentation at all is required if there is adequate space between sections. Bullets and numbers can also be added without indentation.

Step 3. Insert bookmarks to quickly access areas of text you might wish to jump to.

Step 4. Insert hyperlinks in the parts of the text previously labeled as bookmarks. These are links embedded in the text to help users navigate through the document or between documents, allowing you to find material quickly.

Step 5. Insert other links. There are many other areas of text, other than main headings, that might need to be connected elsewhere. For example, for parts of the text referring to different aspects of electrocardiogram tracing, you can include a link to an explanatory graphic.

Step 6. As mentioned in step 5, the text reader can link to “jpg,” “gif,” and other graphics files. Hyperlinks to these files are made in exactly the same way as hyperlinks to regular text.

Step 7. Create flowcharts. Flowcharts are especially useful in the summation of a medical investigation. Hyperlinks allow each step in the flowchart to be contained on a separate page. Each branch of the flowchart can be represented as a set of hyperlinks, linking each choice to the next appropriate page.

Step 8. Create a hypertext markup language (HTML) document. The Microsoft Word document you created with a “doc” extension needs to be converted into a document formatted for a Web browser. This means saving the document as a webpage (with the “htm” or “html” extension). Double-click on the file with the new extension to bring up your work in your browser. You can

port this file directly to your PDA using iSiloX, which will queue the file (now in a “pdb” format) for installation during your next HotSync (the process of synchronizing information between your host computer and your PDA).

Step 9. Edit or update information. Although your HTML file cannot be edited within the browser, it can be edited if uploaded back into Microsoft Word or whatever word processing software you use. The toolbar at the top of the screen will usually give you this option. If it does not, open the HTML file directly in Microsoft Word.

Intuitive users might not require further guidance. Conversely, those wishing for more detailed instructions can find them on my website at www.palmedpage.com. This site contains a tutorial and a number of topics that I have developed for the PDA; these topics are downloadable. The Meistermed website also contains a tutorial and a large selection of medical topics for the iSilo text reader.

This discussion is specific for making documents for the PalmPilot, using iSilo as a text reader. The same text reader, or another program that can handle hyperlinks, can be used with the Pocket PC or other PDA formats; however, I have limited familiarity with such devices. 🌿

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Competing interests

None declared

References

1. McAlearney AS, Schweikhart SB, Medow MA. Organizational and physician perspectives about facilitating handheld computer use in clinical practice: results of a cross-site qualitative study. *J Am Med Inform Assoc* 2005; 12(5):568-75. Epub 2005 May 19.
2. Barrett JR, Strayer SM, Schubart JR. Information needs of residents during inpatient and outpatient rotations: identifying effective personal digital assistant applications. *AMIA Annu Symp Proc* 2003:784.
3. Criswell DF, Parchman ML. Handheld computer use in U.S. family practice residency programs. *J Am Med Inform Assoc* 2002;9(1):80-6.
4. Daher R, Awada H. [The usefulness of personal digital assistants (Palm and Pocket PC) in the medical field.] *J Med Liban* 2007;55(1):19-28. [French]
5. Fischer S, Stewart TE, Mehta S, Wax R, Lapinsky SE. Handheld computing in medicine. *J Am Med Inform Assoc* 2003;10(2):139-49.

We encourage readers to share some of their practice experience: the neat little tricks that solve difficult clinical situations. Practice Tips can be submitted on-line at <http://mc.manuscriptcentral.com/cfp> or through the CFP website www.cfp.ca under “Authors.”

