The personal reference station:
Meeting the information explosion head on

Society is experiencing an information explosion, yet our ability to comprehend and use this information is limited. The challenge lies in finding a way to easily access, organize, and navigate through this data. Academia is one of the places where this challenge is felt most keenly.

John S. Mayer, M.D. and assistant professor in the department of radiology at Pennsylvania State University's Milton S. Hershey Medical Center, believes that the NeXT Computer can help people meet the challenge. ªI think the NeXT Computer is the first personal workstation that will realistically allow non-programmers to better assimilate and manage large volumes of reference literature,º says Mayer.

The concept of a digital reference library is especially intriguing to Mayer. Dr. Mayer and his project team are currently working on their first contribution to the Digital Library: an on-line version of *Gray's Anatomy*, the classic human anatomy book with more than 1,600 pages and 1,000 illustrations. The program will have a variety of options and features such as fast searches, book markers, and ªnotebooksº for collecting excerpts and taking notes. It will also be able to interact with other NeXT applications such as Digital WebsterÐan on-line dictionary and thesaurus that comes with the NeXT Computer. With the on-line version of *Gray's Anatomy*, physicians, medical students, and anyone else interested in human anatomy will find it more convenient and efficient to look up anatomical facts.

ªWe're anxious to set a standard for how digital reference books and periodicals should look, feel, and of course, perform,º says Mayer. ªOur digital on-line references won't replace the bound volumes, but they will offer advantages. For instance, they'll give you the ability to conduct powerful searches, to manipulate data to meet specialized needs, and to compare text and illustrations side-by-side. They could also interact with other applications such as an atlas that would supplement *Gray's Anatomy*.º

Another major advantage of digital references is that they support interactive images. As Mayer explains, ªInteractive images are particularly useful for studying anatomy in the broad sense: aside from human and animal anatomy, let's say, the anatomy of machinery. Suppose you quickly needed to know where a

particular component would fit into a complex machine. You would double-click on its name which would bring up a diagram showing the part highlighted and labeled in the machine. That kind of reference is pretty powerful.°

[a]I think the NeXT Computer has the potential to function as a *personal reference station*Ða great personal reference library. Until now, affordable, easy-to-use personal workstations have not had enough memory, speed, or storage capacity to enable non-technical people to manage large volumes of digital literature. The NeXT Computer has changed that,° says Mayer. [a]In the overall picture, what NeXT offers is a harmonious orchestration of hardware and software features that is more advanced than other computers that have graphical interfaces.°

In explaining why he chose the NeXT Computer for this project, Mayer cites the easy-to-use development environment featuring Interface Builder and NextStep; UNIX; the high-resolution display; and the computer's large memory and storage capacity. [a]The NeXT system is a clean new start, very well thought out,° he says.

[a]I see the Digital Library as one of the greatest advantages of this machine, and maybe its most significant contribution to society. Once we get a critical mass of reference literature on-line, the NeXT Computer should be the workstation of choice for many professionals. It would be useful for the study of any topic imaginable from economics to art history to astronomy,° Mayer concludes.

John S. Mayer, M.D.
Assistant Professor
Hershey Medical Center
Department of Radiology
500 University Drive
Hershey, PA 17033

jsm8@psuvm.psu.edu
(717)531-7589