



Select Your Array of Information Appliances

By Bill G. Felkey



EVERY PHARMACIST needs to be connected to the people, evidence-based information, practice management systems, and data necessary to operate in an efficient and effective manner.

Some have a stationary workplace from which they practice. Others are moving within and between entire facilities throughout the majority of their days. Some pharmacists leave their practice site and don't engage in professional decision-making until they return to it. Still others are either "on call" or highly connected 24/7. You will notice that the title of this article talks about the possession of an array of information appliances. The most common appliances available in this array are as follows: workstations, thin clients, notebooks/laptops, netbooks, ultra-mobile personal computers, personal digital assistants, smart phones, cellular phones, and pagers. While I personally own devices in every one of these categories, two or three of these should satisfy the personal and professional needs of most pharmacists. Remember, technology continues to weigh less and do more. Thus, I actually employ fewer categories of appliances in my work because each device is supporting larger amounts of multitasking.

VARIETY OF OPTIONS

Which device should own your desktop? The answer, of course is, "It depends." Workstations are designed to be operated in a fixed location and are usually connected to a network

by actual wires. They are powerful and contain multiple drives, flexible expansion, a connected printer, and offer large keyboards and displays. Thin clients provide the large display and keyboard, but it is assumed that most of the data processing will be done on applications that are available on a server or distant network. There is also a class of notebook computer that is labeled a "desktop replacer" because it tends to be as powerful as a workstation and offers a large screen and keyboard with many features contained in workstations such as optical drives. Pharmacists could select a powerful notebook computer with a docking station to enjoy the benefits of the workstation, and still retain the portability of the notebook. Thin clients and notebook computers decrease the need for keeping multiple devices harmonized for document management purposes. In other words, a letter would be stored on a shared access server for the thin client and would be with the end-user on the hard drive of a notebook computer whenever it was needed to be accessed.

Extremely mobile practitioners may select a notebook computer as their primary information appliance. There are three popular iterations within this category. These include standard configuration notebook computers, and convertible notebook computers that offer a standard keyboard but also a display that swivels into a tablet computer configuration. This allows for a touchscreen and stylus interface. The third category is a tablet style computer, commonly called a slate. The stylus, handwriting recognition, and on-screen keyboard serve as the primary input technology. Pharmacists who work with medical records will frequently employ this type of computer and will use continuous speech recognition applications to supplement the other input modes.

The notebook computer I am using to write this article weighs more than 10 pounds and has a huge screen and keyboard. I recently purchased a netbook computer that weighs less than two pounds, offers an 8.9 inch screen, is



one inch thick, and has a keyboard that is less than half the size of the one I usually use. I purchased this device for only \$349 with shipping. It uses Windows XP and is powerful enough to do everything but support my speech recog-

nition software. It has 1 GB of RAM and 140 GB of hard drive space. A supplemental battery allows the device to operate for more than eight hours. I connect using WiFi or a cellular air card.

The netbook, to me, is analogous to the difference between a large single lens reflex (SLR) camera and my digital point and shoot camera. While I will lug my large camera on occasion, I always have my smaller digital camera with me at all times. I am even willing to take my netbook with me in the trailer I pull behind my road bicycle when I am doing a day trip or overnight camping adventure so that I can keep up with my e-mail load.

ULTRA MOBILE PERSONAL COMPUTERS

I am going to finish up the array by minimizing my coverage of ultra mobile personal computers (UMPC). They fit a specialty niche for pharmacists who need a computer that fits in a lab coat pocket. You can easily spend \$1,000 on one of these devices and still not match the features I get in my netbook. I believe that smart phones that combine the cell phone and personal digital assistant functionality will likely provide the features that would obviate the need for a UMPC. Smart phones usually fit in a shirt pocket and will do most of the functions that larger computers offer. Whether you own a Palm, Windows Mobile, BlackBerry, or iPhone, you will probably want this as part of your array. Having a tertiary reference with you whenever you are asked a clinical question seems to me a no-brainer.

Simple cellular phones and pagers have a place in the array of information appliances employed by pharmacists, but they increasingly are either bundled as part of a smart phone or their features are included in more advanced products in the array. I personally started feeling like I was wearing Batman's utility belt, so I now only carry a smart phone. I have a USB flash drive on my key ring and do simple computing tasks on my netbook. I do speeches and speech recognition on my desktop replacing notebook computer. My wife and I share a desktop workstation and a wireless network at home. My university supplies me with a workstation on my desk that I can remotely connect to from anywhere in the world.

I would enjoy hearing your comments and taking your questions regarding the information discussed here. You can e-mail me at felkebg@auburn.edu, or visit my share site at felkey.shutterstockly.com to see more details and related health care technology resources. 