Pharmacy Automation and Technology

Pharmacy Technology: Are You an Enthusiast or a Luddite?

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Technology is here to stay in both our professional and personal lives. Our challenge is to make the appropriate selection and optimize the technologies that we use. This month, we address the pervasiveness of technology, especially in the pharmacy department's efforts to achieve its mission.

Think about your technology use. How positive or negative are you about the technology in your life? When we categorize people based on how they use technology, we start with the “clueless” group. You may have colleagues who are constantly asking you how to work their phone, their computer, and the software on their computer. For them, putting paper in a printer is synonymous with climbing Mount Everest. Thankfully, technology is so prevalent that these members of your work group are rapidly becoming the exception instead of the norm. We used to laugh about having to ask a 6-year-old to help us open up an e-mail attachment. Now, these kids are all grown up and working in your department. They probably think all this technology has always been available.

Most people only utilize about 5% to 10% of the capability of the hardware and software they employ in their personal and professional life. A significant number of your colleagues know how to operate the technology in the department only to the extent of being able to do their jobs. We can only imagine how much more efficient and effective the department could be if everyone used an additional 30% of the already embedded and paid-for capabilities of these systems. The strange thing is that the “power users” in the department are operating these technologies to their professional advantage, but many departments are not benefiting from this embedded expertise. We recommend that any time you run into a bottleneck or feel like you are doing things the hard way, take a look at your technology and ask whether there's an app or other support that can assist you.

You may not be aware of what the Luddite label means. In the 19th century, an English textile worker named Ned Ludd was incensed that factories were going to use textile machinery and would no longer need as many workers to do those jobs. He reportedly smashed some of the machines in a rage. The Luddites began using Ned's name for what has been characterized as collective bargaining by rioting. Would you panic more if new software was introduced into your department or if your health system went back to pen and paper record keeping? Do you embrace the technology you are using, or do you consider it a necessary evil?

A document created by the American Society of Automation in Pharmacy (www.asapnet.org) looks at a cost-benefit analysis on the value of technology used in pharmacy. Although the focus of the document is on community, specialty, and long-term care pharmacy practice, the categories of technology are relatively synonymous with those used in health system pharmacy. The complexity of the medication use process and health systems exceeds that of the ambulatory setting. Have you ever paused to consider how much technology you are using in every aspect of the medication use process? Do you know how much money you have invested in this technology? ASAP has done a good job of tabulating the answer to this question. We have permission to distribute this document, if you would like to see it. You will find our e-mail addresses at the end of this column, and we will quickly reply with the attachment of the file if you request it. We coauthor a regular column in a technology magazine called *ComputerTalk for the*

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Pharmacist. ComputerTalk and ASAP are affiliated, so if you find the ASAP report interesting or if you describe yourself as technology enthusiast, you may want to sign up for a free subscription. There is an additional version published for health system pharmacists. You may find that it complements *Hospital Pharmacy*.

The Institute of Medicine promotes that the benefits of pharmacy and all health care technologies should include safety, timeliness, efficiencies, effectiveness, equity, and a more patient-centric process. The ASAP document makes the assertion that as much as \$1.46 of total costs per prescription would come from the technology being used to create that finished transaction. When you consider the cost of your pharmacy department management system, workflow systems, barcode scanning, robotic automation, unit base cabinets, drug information databases including clinical decision support, and all of the support cost and service contracts that are layered on top of these technologies, would the overall cost for each transaction in the medication use process be significantly higher than those calculated by ASAP? We believe they would be.

As bundled payments and population-based capitated payments increase, it will be necessary to consider how each of the technologies used in your department contribute to patient care not only within

the walls of your health system, but also throughout the continuum of care. Handoffs to other care providers are becoming even more significant in moving from episodes of care to continuous care. We firmly believe that there is no scenario in our future in which technology will be employed to a lesser degree. If you are not an enthusiast, we ask that you at least consider how you can maximize the use of the technology in your life both personally and professionally. Don't be shy about asking a power user for a helping hand to get the most out of the technology in your department.

We consider it our job to push the envelope on the adoption of technology. As enthusiastic as we are about technology, we are also concerned about the way in which technology can be overused in our society. A great video has been posted on YouTube that illustrates the problem. Go to YouTube and search for the video, "I forgot my phone." The clip depicts a young woman going through the day without her phone when everyone around her has their smart phone involved in every human interaction. We would like to hear your thoughts and concerns about how to cope with this rapidly changing technology and health care environment. Please feel free to contact us by e-mail or on our blog. Bill can be reached at felkebg@auburn.edu and Brent at foxbren@auburn.edu. Our blog is located at www.pharmacy-informatics.com. ■