MOBILIZE YOUR INSTRUCTION WITH WIRELESS

BY MOLLY SUSAN MATHIAS AND STEVEN HESER
From cataloging and inventory to circulating laptop computers, librarians are finding more and better ways to use wireless technology. You may want to consider whether your library could make a bigger impact by integrating wireless into its bibliographic instruction program, like we did here at the Milwaukee Area Technical College (MATC). Our mobile classroom is one example of how you can generate your own flexible training space and create a larger profile for your library within the institution, producing important partnerships with other areas on campus in the process.

MATC is a large 2-year institution that operates as one of 16 technical school districts under the Wisconsin Technical College System (WTCS). WTCS empowers all of the 16 local district boards to levy property taxes; these provide the majority of MATC's funding. The college is located in downtown Milwaukee, and its three outlying regional centers serve a three-county area. These different locales allow MATC to provide educational services for a culturally and economically diverse population that totals approximately 65,000 students. MATC administration endorses a philosophy that strongly emphasizes an institutionwide commitment to teaching and learning.

The libraries at each of these locations provide materials, services, and education to support the curriculum. Since 1996 the MATC library has nearly doubled the size of its collection and expanded its electronic resources from one command-based database to nearly 60 proprietary Web-based resources. Bibliographic instruction (BI) has always been a mainstay of our library and until recently was our primary means of outreach to the college. Despite our improved resources, our BI lacked space and standardization, and the technology was inadequate. We needed to turn our BI program around, and wireless technology provided the answer.
The Old Orange Couch Was Holding Our Library Back

Originally, we decided to upgrade our BI equipment to wireless in order to address space constraints in the library and the negative effect this had on our ability to present clear, organized instruction sessions. As the library’s offerings were expanding, space to teach people about them seemed to be shrinking! None of MATC’s four libraries has any training labs for bibliographic instruction, and expansion is not an option at the Milwaukee campus location. Until fall of 2001, BI and library orientations took place on a centralized group of workstations within the library, which nearly always involved disrupting students who were studying. At the Milwaukee campus, library sessions were conducted on the infamous “orange couch,” which could seat about eight students, leaving those remaining to stand or sit in chairs around a single computer. In general, library orientations were disruptive, awkward, and lacked effective demonstration facilities.

After some unsuccessful attempts to expand the library, we saw wireless technology as the most viable option for our space woes. This decision meant we would go from using a few stationary PCs in the library to 20 wireless laptop computers transportable via a cart. As we put our wireless plan into action, however, we discovered that in addition to offering a solution to the space crunch, our “mobile classroom” created the groundwork to partner with important groups on campus, and it eventually improved the library’s image as a technology leader.

Details, Details, Details

In most cases, choosing to go wireless involves some knowledge of the capabilities of your own network in addition to the functions you’d like the wireless solution to provide. In our situation, some research was required to see if our network backbone would be sufficient to handle wireless technology. As it turned out, our college had a T-1 backbone that was more than sufficient to handle wireless communication. The challenge of choosing laptops, network cards, and hubs was not an issue because of MATC’s service contract with the vendor Omni Tech. Choosing the wireless technology for the library involved checking a few boxes on a list provided by
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Information Technology (IT), so although we had some say in the make and model of the wireless laptops, the big decisions were made for us already.

The first order for the wireless classroom in April of 2000 included the purchase of 20 Simply Mobile Toshiba notebook satellite 2180CDT units, an outlet and extra battery for each notebook, and wireless 3Com communications cards and software. The order also included two mobile carts, two network access points (hubs), and 1 day of setup and training. Three wireless network/communication cards were also purchased to upgrade existing laptops. The entire cost of the wireless infrastructure was approximately $43,000.

The notebooks came equipped with a PC card that allowed them to exchange data with a 3Com Wireless network hub. The hub, included with the cart, plugs into a data jack that allows a connection to the network backbone. Since these data jacks are available in virtually every classroom at MATC, almost any place on campus can be transformed into a high-tech computer lab or library training space.

Not only did it get us in on the ground floor with wireless, but it also created a positive image of the library with respect to technology and generated interest in our bibliographic instruction that had not previously existed. In an exit survey conducted by ER&D, nearly 80 percent of faculty members attending the workshop stated that their level of usage for library databases would increase moderately or substantially in the future.

Our change to wireless was fundamental because it allowed us to bring library instruction to the students, not the other way around. But when our methods changed, we weren’t the only ones affected. Instructors not only had to deal with the introduction of library services into their classroom environments, they also had to process this “new” electronic database information along with their students.

The workshop emerged from natural partnerships with other areas on campus, without which our experiment with wireless BI would have been considerably more difficult. ER&D is a union-based program that provides professional development to new and experienced teachers and has a solid reputation among faculty. ER&D also helps instructors to integrate technology and learning into the curriculum, so when the opportunity arose to collaborate with them and premier the college’s wireless network within the workshop, we jumped at the chance.

We saw in this collaboration an opportunity to elevate the library’s profile and help educate faculty about our electronic resources.

The workshop and wireless cart also strengthened our relationship with the IT depart-

Our Instruction Process

The format we used to instruct faculty within the workshop strongly influenced the new instruction program we put together for students. In planning for the program, we had decided early on that we needed to create a “BI presentation template” using the form and content of the workshop as our guide. Every librarian at MATC can now follow this template when using the wireless cart. But even with this new standardization in place, getting a mobile session off the ground involves a little preparation time. First, instructors contact the reference desk to schedule a library orientation. Classes must be scheduled at least 48 hours in advance because our reference staff must find out what room the class is in. The librarian must then go to the room and write down the jack number for the IT Helpdesk to activate, since not all jacks are kept active at MATC in order to maximize network speed.

The laptops are charged as necessary for each session; up until this point, we have never scheduled more than one wire-
less activity during any given day. All of the laptops are battery powered and ideally have 2 hours of life, although we do have eight extra batteries in case a laptop begins to lose power. Fortunately, all MATC buildings are linked by skyways, so we can easily move the cart wherever we want. The network login process requires that we go to the classroom about 10 minutes before the session starts to plug in the hub and begin to set up the computers. The classroom may or may not be equipped with a teaching computer with display capabilities, but if there is no such computer, we hook up a video projection unit to one of the wireless laptops and begin the instruction session.

Wireless Changed Our Instruction for the Better

So far, the response to our wireless BI program has been positive. Since the library brings the computer lab to students in their classrooms, they are able to remain comfortable in their own environments, rather than being uprooted to go to the library or a computer lab. The wireless laptops also have a certain “wow factor,” and most students express an interest in how the technology works. As a result, they seem to be more interested in the electronic resources we’re offering them. Plus, the hands-on technology allows the library to incorporate more active learning opportunities for our students.

The mobile cart was also an impetus for us to standardize bibliographic instruction. Now the library has developed a core set of PowerPoint slides that we use for every instructional session, although databases and examples are customized for each class at the instructor’s request. Whereas library instruction on the orange couch had seemed unfocused and haphazard, library orientations using the wireless cart deliver a clear and centralized message. This format does require some work for the librarian, since we must do more prep work and prepare for instruction outside the library, but we have adapted quickly.

Where Our Program Is Now

Overall, we love the wireless cart since it provides us with an instant computer lab. Two of our library locations now have their own carts, and the others can schedule time to use other mobile classrooms available at their campuses. We especially like the fact that we are increasing accessibility to library resources. The mobile classroom provides the library with a flexible training program that allows us to go wherever, whenever we’re needed. We have also gained a great publicity tool for the library for campus outreach. Most importantly, our wireless cart helps us fulfill the library’s commitment to and emphasis on teaching and learning at MATC.

That first cooperative workshop that we hosted in spring 2001 evolved into faculty workshops that were conducted at all four campuses last fall and a one-credit professional development course for faculty that is being offered early this year.

Since the inception of our wireless classroom, we’ve also joined forces with IT on a number of occasions. Presently, the library is working with IT on several projects, including redesigning our Blackboard services and beta testing Blackboard portals. This stronger relationship and gained trust has opened up the possibility for future collaborative projects between us.

Recently the college purchased Hewlett-Packard Omnibook XE3 laptops to replace the Toshiba models in our newer carts. We don’t work for HP,
but we can tell you that we prefer the Omnibooks mainly because of their longer battery life (1 1/2 to 2 hours in the Toshiba vs. 3 in the HPs) and the performance gains in reliability and speed. The Tobasbas also take a lot longer to boot up and connect to the network. What we don’t really like about the Omnibooks are the latches to open them—they get hooked on the matting within our cart, making them nearly impossible to close when we store them.

The change hasn’t all been smooth-going. Faculty members are very pleased with the change in library instruction, but we need to work on increasing their comfort level with the laptops. While they have been enthusiastic about the wireless technology the wireless cards we have now stick out of the laptops and are always in danger of being jarred loose.

We also have to tackle the printing issue; we don’t have a printer networked to the wireless cart. Although most databases allow students to e-mail their results, students enjoy having some tangible result from their library instruction session. A new cart with more storage capacity, a networked printer, and some permanent wireless access points are all on our wish list.

We would like to increase use of the mobile classroom by going beyond library instruction to “network” with other departments. The library has maneuvered the cart to professional development meetings and data jacks— despite the wireless technology, the mobile classroom is only as versatile as the existing wiring at your school.

- Get interested faculty on board right from the start; their support and interest will convert other instructors, and more importantly, they will request mobile library BI sessions for their students.
- Use the existing infrastructure at your school to work for you—you may realize you don’t need to reinvent the wheel to go wireless by collaborating with other departments.
- Finally, marketing your mobile classroom is a must. Every instructor at your institution should be aware the library has wireless and know how the mobile classroom can benefit his or her students.

Wireless technology allowed the MATC Library to move its instruction program into the 21st century. Our mobile cart has improved the quality of our bibliographic instruction and fostered relationships between the library, faculty, IT, and professional development departments. The most satisfying development that has emerged from our experience with wireless is that we now feel the library is helping to propel the academic life of the college forward and into the future. The mobile classroom has provided a solid foundation to build on and to improve our service to students and staff. It has allowed us to create training space virtually anywhere and to leave the old orange couch behind.

Molly Susan Mathias is a reference librarian and instructional specialist at Milwaukee Area Technical College. She holds an M.L.I.S. and an M.A. from the University of Wisconsin–Milwaukee. Her e-mail address is mathiasm@matc.edu. Steven Heser is the north campus librarian and Web developer at Milwaukee Area Technical College. He holds an M.L.I.S. from the University of Wisconsin–Milwaukee and an M.A. from Marquette University in Milwaukee. His e-mail address is hesers@matc.edu. Both Molly and Steven have presented at regional and national conferences on the use of wireless technology in bibliographic instruction.