
AC 2011-2338: A LIBRARY INSTEAD OF A LAB: FORGING A SPACE PARTNERSHIP IN A NEW BUILDING

Jeff McAdams, University of Texas, San Antonio

Jeff McAdams graduated with a Bachelors of General Studies from The University of Kansas and a Masters of Library and Information Science from Emporia State University. He worked at Spahr Engineering Library at The University of Kansas and is currently working as the Science and Engineering Librarian at The University of Texas at San Antonio.

**A Library Instead of a Lab:
Forging a space partnership in a new building**

Abstract

Our university library recently created a satellite bookless library in a science and engineering building. The library was a product of a need for student space and a conversation with our engineering and library deans. The facility was designed to be a model for an electronic library, focusing on student collaboration and research assistance. Many of our services remain the same as our main library. As we move forward, our assessment is to make the space more useable for students and to grow our presence in providing information literacy and research assistance with the students and faculty in this building complex, while our collection development goals will be to grow our electronic collections.

The New Science and Engineering Building

Our university is a new campus, relative to many universities in the state. However, it is growing rapidly, especially in the sciences. In the last five years, our university opened two multi-disciplinary science and engineering buildings. The newest building, the Applied Engineering and Technology Building, opened for occupancy in Fall 2009 and officially in Spring 2010; our library opened few months later, in May.

In the original plans for the building, a laboratory space was built where our library is now. The architects and builders outfitted the room with various lab specifications, including an eye-wash station, a multitude of power outlets, cabinets and counter spaces. The school did not assign the space when offices began to move in. This is when the conversation began between our two deans (Library and Engineering). The Dean of Engineering saw the need for more student space in the complex. He wanted to emphasize a space for students to be collaborative. The Dean of Libraries saw the opportunity to involve the library and get students associated with our research assistance and electronic resources. They both agreed that turning an empty lab into a state-of-the-art bookless library was the right path to follow.

Satellite Library Without Books

The two Deans moved forward with designing and renovating the lab space into a bookless library. The decision not to include books was partly based on the available space, which is small and could not house all or most of the collections for the appropriate subjects. Another big factor in creating a bookless library was the low use of print books, and high use of electronic books and journals. We are purchasing more electronic resources than print resources now, and this direction will only increase. This was an opportunity to make more space for students and engage them in instruction of our resources, all of which are discovered electronically.

However, the bookless nature of the new space does not mean we did not retain our previously held print volumes, nor will we not continue to purchase print materials. We will just store them in the main library where they always have been shelved. These books are still browsable and available. We will even send them to the AET Library upon request, which I mention later. As browsing online becomes better and more natural, this issue will decrease in importance.

The Library Space

The library is about 2,200 square feet broken into small spaces divided by furniture or partial walls. There is a lounge of 12 comfortable chairs with desk arms for laptops. Students can check out one of three group study rooms, two of which have a table that seats six and a 52 inch digital display to which they can connect their laptops. The digital display service is used by everyone who uses those rooms, to our surprise. It is a very popular feature. The remaining group study room is slightly smaller, only holding a table that seats four. All three group study rooms also feature a large white-board on one of the walls, along with three glass walls which allow for marker writing (and are also used heavily). The rooms check out for four hours, and we have students lining up at our door before we open to grab them. They are in constant use throughout the day until we close.

There are ten desktop computers on a high counter that is a comfortable height for walk-up use. However, for each computer there is a comfortable chair that is raised for the counter height (See Fig. 1). The computers are managed by our campus Office of Information Technology. They have the same image as the computers in the rest of the general academic computer labs on campus. At this time, we do not have any specialized science or engineering software, as those are handled by departmental computer labs. We are looking into changing this, however, because the specialized software is a common request from the students.



Figure 1

Attached to one of the computers is a large scanner capable of 11"x17" documents. It also has a document feeder on the lid so people can scan multiple pages quickly. Although, the special type of graph paper engineering students use for their homework assignments is too thin for the feeder rollers. The paper is not strong enough and will easily crumple in the process. Students still make good use of the scanner for everything else.

We have a new copier/printer that is also managed by our campus Office of Information Technology. One of the great features is that students can print directly from their own laptops to this copier from anywhere on or off campus and come to the library to release the print job by swiping their student ID card in the printer and pick it up. We also made sure it is set up for 11"x17" printing, which is also heavily used by a set of the students who need to print out design plans. Because of the location in the building, we are heavily trafficked by people needing to print.

Since the library was originally outfitted as a lab, our renovation left many of the amenable features remain. There are still power outlets where ever you turn your head. The long wall with all of the exterior windows has a counter top with cabinets and seating spaces. This is used by students who want to study alone, but can still spread out their materials without taking up too much space. They also benefit from the direct natural light that comes in through the tall windows.

There is a reference/service desk right near the entrance. It is an ideal, interactive desk. There are two staff chairs and computers one one long side, and opposite are two seats for patrons who can sit comfortable with knee space under the desk top. The computer monitors swivel 180 degrees so they can be used by by staff and patron. We have a 30"x30" sign at the end of the desk that reads:

Welcome to the AET Library
Research | Collaborate | Study
Need help? Ask Us!

This is everyone's direct eye-line as they walk in the door. We want to greet everyone in a friendly manner and also let them know we are here to help them.

Collaborative spaces

In addition to the group study rooms, there are seven groups of tables, each able to seat six people. These spaces are all set apart by a semi-opaque partition divider that is suspended by wires from the floor and ceiling. They are not as closed in as the group study rooms, but these spaces feel like a group study carrel. The partitions are a hard plastic which the students can write on with dry-erase markers. In addition, one entire wall of the library, where many of these group tables line up, is composed of a whiteboard. It is a wallpaper that was rolled on directly to the sheetrock. From floor to ceiling and wall to wall, students in these areas can write on the wall with dry-erase markers (See Fig. 2). On every table we provide a supplies canister that holds markers, an eraser, a spray cleaner and paper towels.



Figure 2

In our observations thus far, we notice that science and engineering students are very visual when they study in groups. They make full use of the entire whiteboard space, and each time a group study room is checked out, they connect their laptops to the digital displays to show homework problems or solutions. For them, writing out equations is their practice how to figure out/explain an assignment as a group. If there is a surface for writing, they will make use of it. We keep reassessing our supply needs for markers and cleaners because of that.

Services Make the Library

After seeing our banner with AET Library on it, a common question asked by visitors to the library was, “Where are the books?” It is a natural reaction to the word library. However, after a few months, those perceptions have changed. Our library is defined by our services. Rather than using the space to store books, we use it to give students a place to study collaboratively, but also a place library staff can engage students in various ways to instruct them about appropriate resources available to them and how to make easy use of them.

Library assistants operate our reference/service desk. They are available to answer questions, troubleshoot technical issues with the monitors, computers, printer or scanner. They also refer research questions to subject specialist librarians who can provide 1-on-1 assistance right where the students are studying. We train them to understand our library's processes so they can listen to a question and offer a solution of our many services, including Interlibrary Loan, requesting a purchase, and searching our hundreds of databases. Our library assistants are

engineering and science students, including a graduate assistant. The quality of our students is an integral part of our service quality. They are also able to assist with slight tutoring when needed, since they are all upperclass students.

Even though there are no books stored on site, a patron can request a book that we own or don't own through an online request form to be delivered to the AET Library. Because our campus is not gigantic, and we are the only branch on our main campus right now, these requests are usually filled within a couple of hours. Regarding print materials, our attitude is one of delivery in a speedy manner, rather than browsing in their building. They can also return or renew any print books there and we will discharge and return them to the main library.

We communicate with students with three 52" digital monitors in strategic places in the library that display announcements designed for students. They include information about upcoming research opportunities, research news, library workshops, resource additions or trials, job opportunities, and library information. We are working on a way to have a display sync with a Twitter account using software to also show students' response Tweets. In this way we hope to make it an interactive announcement board. This has been especially difficult to attempt.

Also coming in the near future are e-reader devices. We have ordered two each of Amazon Kindles, Sony E-Readers, and Barnes & Noble Nooks. Our plan is to load appropriate textbooks, common reference works, and essential classics on these for students to check out. Our pilot of this model will likely change as time goes by, but we want to push forward and experiment with electronic delivery models of information. We are still unsure as to how science and engineering students will respond to these, since they mostly use textbooks from the library, but we are looking forward to finding out.

Assessment

In order to determine the use and effectiveness of our library, we use many different assessment tools. We use a gate count to measure how many people visit the library. We study our e-resource and web page views, to see what resources people use. Our library assistants write down a summary of each patron interaction they have, including any comments, questions and answers given. They use a Survey Monkey online form, from which we can easily produce reports, graphs and spreadsheets. We also have a comment box for any patrons who have suggestions for us. The patrons of our library are direct and social people by nature, and we engage in impromptu conversations frequently about their use of the facility and how we can improve. All of these methods help us understand what works and what needs to change.

In many cases, we can make a change quickly by adding a sign or moving furniture. In one instance, we decided to eliminate furniture that was not being used and replace it with something more useful. We have 12 comfortable chairs that are overstuffed, space-age designed chairs with a laptop arm. Almost no one ever uses these. It is a big space of the library that the designers hoped would be a nice individual study space. Yet, the students do not take advantage, we believe because they don't have enough space to spread out books, paper, ruler, and maybe a laptop. So, we plan to replace that area with more collaborative tables and try to squeeze in a few comfortable individual spaces elsewhere. This will add a few seats, but ultimately make 12

used seats that were previously never used (See Fig. 3). Whatever the comment, we want to be responsive and flexible to their needs, and because we do not have to worry about managing stacks of books, it is often easier.



Figure 3

The response from both students and faculty alike has been overwhelmingly positive. The faculty are not big users of the library space, and they already have been taking advantage of our office delivery service. However, they comment frequently that this space is needed for the students to collaborate have access to library help. They even use the group study rooms to meet with their graduate students sometimes, because the monitor and white-board are not always available in their labs or offices. The students absolutely love the space. They are practical, problem-solving students. In every class I meet and do instruction for, they bring up how much they enjoy the library.

Other Libraries

Our library is not the first to suggest a bookless or limited book design. Kansas State University, Stanford, and Cornell are three libraries that have implemented or are implementing such a design. Kansas State University's Fiedler Engineering Library was dedicated in late 2000, and it resides in Fiedler Hall, also built at the same time.¹ The library is located in the middle of engineering education on campus, and to take advantage of that real estate, they decided to leave all of the books, save for a few reference titles and current periodicals, in the main library on campus.

Stanford University's Terman Engineering Library recently opened their newly constructed library with many fewer printed materials and copious and flexible student study spaces. They are responding to the fact that digital production of scholarly materials, including books, will only increase, while the need for librarians to adapt their roles to focus more on information transfer in student populations, since information searching has transformed dramatically with digital materials and the Internet.²

Finally, Cornell University's Engineering Library is currently undergoing a renovation and removal of a massive amount of their printed collection, and will only retain current and circulating materials. This is to partly utilize the space for student collaboration and better engage with students and their information needs.³

These other libraries, along with ours and more to come in the future, show the growing interest and need for merging libraries into collaborative working spaces next to the lab and instruction facilities on campuses. The constraints of physical collections are becoming less burdensome as media becomes more available online. Discussions will undoubtedly continue to occur about what to do with our library spaces.

Conclusion

We created the AET Library with science and engineering students in mind. As we collect academic resources, more and more are in electronic format. Our focus will be on delivering information about those resources and instruction on why, how and when to use them with regards to a student or researcher's individual needs. Computers and other electronic devices that break into the marketplaces will be our method of discovering rich scholarly resources. We won't discount or forget past works in print, and we still want to make them available to discover and deliver on demand. The future is always impossible to predict, but we think this model will serve us well.

Bibliography

1. *About Fiedler Library*. 2008 [cited 2011 March 11]; Available from: <http://www.lib.k-state.edu/branches/fiedler/aboutfiedler.html>.
2. Edelson, R., *Stanford: Engineering a Digital Library*. Information Today, 2010. **27**(10): p. 1-42.
3. *Engineering Library Transition*. 2010 [cited 2011 March 11]; Available from: <http://engineering.library.cornell.edu/node/6791>.