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Abstract

Unlike engineering, librarianship is a humanistic discipline. Therefore it may be somewhat counterintuitive to think that partnerships between librarians and new engineering faculty members would be an efficient way of achieving the goals of both participants. Faculty members are required to publish in their area of research while effectively teaching classes. New faculty members find it especially challenging to meet these demands. It is common for academic librarians to be assigned as a liaison between the library and faculty. Librarians have a vested interest in seeing these faculty members succeed as researchers and teachers. They have the responsibility to see that the information needs of the faculty and students in their assigned subject areas are met. Meeting the information needs of faculty members enables them to successfully perform their research. Meeting the information needs of students can enhance their learning experience, which in turn can help create a more effective teaching environment.

This paper focuses on ways to build partnerships in both of these areas, meeting the information needs of faculty and students. Each partnership is different, but effective partnerships work toward helping both the faculty member and librarian achieve their goals. Identifying common ground is the starting point for building a synergistic relationship. Examples of effective partnerships will be presented from literature as well as the author’s personal experiences. The purpose of this paper is to encourage new engineering faculty and librarians to creatively seek out partnerships in order for each to become more effective.

Introduction

New faculty members face several challenges, each requiring time and effort. Research projects and programs need to be developed. Grant proposals must be written. Graduate students need to be mentored as they are incorporated into research teams. Classes need to be taught. Assignments have to be developed, distributed, and graded. Tests must be given to assess learning. Of course, everything has deadlines which seem to come due long before they should. All the while they are trying to acclimate to the culture and politics of a new university.

In today’s society of limited budgets and outcomes-oriented assessment, universities are asked “to perform miracles by doing more with less, producing more and better research, and graduating highly employable individuals.”¹ Faculty members are pressured to increase productivity, especially those who have yet to reach tenure. One thing that faculty do not need is additional drains on their time. Rather they need allies to help them accomplish all that is required of them.

This paper explores a not so obvious ally for faculty members, their subject librarian. Librarians have a vested interest in seeing faculty succeed. One of a subject librarian’s main
responsibilities is to help the faculty and students in their assigned disciplines with their informational needs. Partnerships which enable faculty members to do better research focus on meeting the faculty member’s informational needs. Partnerships which support the faculty member’s role as a teacher focus on meeting the students’ informational needs. There are many ways to collaborate between faculty and librarian. Some examples from literature and the author’s experience will be presented in this paper.

Each faculty-librarian partnership will be uniquely defined by the needs and interest of the participants. Each of the types of partnerships mentioned in this paper may not be applicable to each faculty member. It is hoped that the paper will help new faculty members determine which new partnerships may work for them by making them more successful and producing good results with limited efforts.

Partnerships to help with research

Librarians can help faculty succeed with their research in several ways. They can insure that each faculty member is aware of all the scholarly resources available as well as provide instruction on using those resources. This is especially important for new faculty members. Each university will have a different set of article databases and services offered through the library. A brief overview of these resources may save time, effort, and possibly frustration for the researcher. In this case, the partnership could be a brief introductory visit by the librarian to the faculty member’s office augmented by periodic updates.

In fact, this partnership can naturally be extended into one where the librarian supports the faculty member in finding the information they need. Subject librarians should be seen as resources in finding scholarly literature. Even after training with the available databases, those hard to find items creep up. Librarians are like the private investigators of the information world. Partial citations are common in engineering literature, especially for the obscure conference proceedings. In recent years, the way we find information has changed drastically. It is continuing to change. Although most of these changes have made access to literature easier, it may not be obvious where to identify and obtain specific pieces of information.

Another partnership to help faculty succeed concerns building the collection of scholarly information needed for research. As effective budgets continue to shrink, libraries struggle to provide the necessary resources. Librarians have the primary responsibility to build collections, but faculty members rely on these materials to obtain the scholarly information needed in their research. Forming a partnership to obtain faculty input into collection decisions improves the quality of information available. It is understood, as Tucker, Bullian, and Torrence pointed out, that “it may be in the faculty member’s best interest to collaborate, but realistically the library collection will remain secondary to teaching, research, and other responsibilities demanded by the individual’s department.”

For the past several years journal and book prices have increased faster than library budgets. As a result journals have been cancelled. To minimize the number of cancellations most libraries have used a larger percentage of their budgets for journals which has reduced the money available for books. Libraries use a number of factors in determining which journals to cancel
and which to keep including cost per use, publisher bundling, and perceived need to support the research of faculty and students at the university. Several articles describe formalized programs in which libraries have sought input from faculty on collection development, but individual partnerships between a faculty member and subject librarian can be productive as well. The more proactive faculty members are in detailing which journals are crucial to their research the more likely those journals will survive a cut. Collaboration between faculty and librarians influences decisions in every aspect of collections. Which journals are okay to access through interlibrary loan? Which need to be available electronically even if it will cost more? The same is true for purchasing books. Books requested by faculty are much more likely to be purchased. If specific titles aren’t known, informing the librarian of weaknesses in the collection alerts them to what subjects require additional attention, thus enabling better informed selection of materials, which, in turn, enables better research. Felix Chu explains that faculty can be especially helpful in identifying materials in new areas of research which might otherwise fall between the cracks.

A relatively new arena where librarians are partnering with faculty in regards to their research is in the area of disseminating that research. Institutional repositories (IRs) can provide free access to research produced at an institution. Many IRs include theses and dissertations produced at the university. IRs are expanding to include faculty member’s publications, effectively making the articles available directly from searching Google. Copyright presents a major obstacle to making this work. Most professors give away full copyright to the journal publishers when articles are accepted. Libraries are working to educate faculty as to how to protect their rights. The Scholarly Publishing and Academic Resources Coalition (SPARC), an organization developed by the Association of Research Libraries provides resources to authors including documents to aide in negotiating with publishers so that the author will not surrender exclusive rights. Some universities, like Harvard, are mandating that faculty keep at least a shared copyright so that all publications can be included in an IR. Strong statements like this have made copyright negotiations much easier. Sometimes the publisher basically requests the right to publish the article first with a short embargo period before it can be placed in an IR. The mandates for open access to research are no longer coming only from universities. The Consolidated Appropriations Act of 2008 requires that all publications of research sponsored by NIH funding be freely accessible from PubMed. The NIH requires that embargo periods be no greater than twelve months. It may not be long before other agencies will require the same level of open access. Many libraries offer assistance to faculty with these and other scholarly communication issues.

Partnerships to help with teaching

Faculty members and librarians are both committed to helping students succeed in their university experience. Librarians will not be able to help with many aspects of classroom instruction, but there are several instances in which creative partnerships can greatly benefit the faculty member, the librarian, and, most importantly, the students. The criteria for ABET accreditation includes in its required program outcomes that the students must obtain both a “recognition of the need for, and an ability to engage in life-long learning” and “an understanding of professional and ethical responsibility.” In order to be life-long learners, students must be information literate. The Association for College and Research Libraries
eloquently states the following which appeared in *Information Literacy Competency Standards for Higher Education*.

Information literacy forms the basis for lifelong learning…. It enables learners to master content and extend their investigations, become more self-directed, and assume greater control over their own learning. An information literate individual is able to:

- Determine the extent of information needed
- Access the needed information effectively and efficiently
- Evaluate information and its sources critically
- Incorporate selected information into one’s knowledge base
- Use information effectively to accomplish a specific purpose
- Understand the economic, legal, and social issues surrounding the use of information, and access and use information ethically and legally.

Students need to learn where to find information. Today, it seems that students prefer to use Google to all other avenues of finding information. Li and Baer found that “over 60% of undergraduate students either agreed or strongly agreed that Google is sufficient to meet most of their research needs.” They also noted that over 80% of undergraduate students had “no knowledge” of databases like Compendex and Web of Science. Macklin and Forsmire pointed out that since students feel confident online they feel they can find information accessed in electronic format. “The problem lies in the fundamental user belief that competence with technology and the ability to retrieve information are the same skill sets. In fact, they are not.”

Librarians can offer training for databases and other information resources, but that training is of little value on its own. Students, especially those in disciplines like engineering, have difficulty seeing the value of such training for them. Melissa Moore noted that “the most successful group instruction which takes place is in the context of a course, with the involvement and support of the teaching faculty member.” It works especially well when tied to an individual assignment or project. The literature shows many examples from freshman seminars to senior design classes. Some very effective learning experiences come from creative partnerships between librarians and teaching faculty.

One of the author’s most memorable examples occurred in a graduate level environmental engineering class. The professor wanted the students to explore a subject in depth. With the author’s help a series of assignments were created, starting with creating an annotated bibliography and culminating with a poster session presentation on the last week of class. A lecture on library resources was presented as the students started looking for literature to include in their bibliographies. The librarian was seen as a partner by the professor as well as by the students. Timing was very important. Since the students needed to find articles from quality sources they were actively interested in learning the specialized databases in the subject. Having the librarian in the classroom explaining these resources made the students feel that they could contact the librarian for further assistance, and many did, both for that assignment and others. The professor was also satisfied that the students’ learning experience was enhanced by the process.
Synergistically improved learning experiences are common results of such partnerships. Bhatt, Ferroni, Kackley, and Rose reported on creative partnerships at Drexel University and the University of Maryland. Faculty and librarians collaborated extensively on the projects with great success. “The mutual bond that evolved contributed to learning experiences among all the participants involved in the project.” Kearns and Hybl add, “Collaboration between library and teaching faculty is crucial to the vitality of information literacy program[s] incorporating both curricular objectives and student relevancy.”

Teaching the ethical use of engineering information is another area in which faculty and librarians can successfully partner. All too often students don’t understand plagiarism or worse they choose to ignore it. Alice Trussell found that “faculty began seeing students who not only equated scholarly research with web searches, but who viewed the ability to copy and paste as a precursor to ownership and authorship of prose.” Similarly Clifton Poole noticed that “there is a tendency to think that cutting and pasting from the Internet is a form of good research and not plagiarism.”

The manufacturing engineering department approached the author with a concern about plagiarism. They had noticed widespread problems and were investigating ways to combat the problem. In addition to using the SafeAssignment program they wanted to use education. Lectures on the ethical use of engineering information were scheduled, but both the faculty and librarian felt that more could be done. Through a collaborative effort, a series of short digital videos was created. The videos focused on plagiarism, copyright, and citations. They were designed to be inserted into each class’ BlackBoard page. A short quiz was developed which could also be downloaded into BlackBoard and graded automatically in the grade book. Students could watch the videos on their own. Worksheets in PDF format were provided to help the students work through plagiarism and citation issues. Pre- and post-tests showed a better grasp of ethical issues of information.

Note that this last example uses technology that wasn’t available a few years ago. Partnerships are not as limited as they used to be. Dibble and Frank state, “Now with tools such as Blackboard librarians are able to take the library to particular classes and to incorporate instruction and library materials directly into course materials.” Non-traditional teaching aids can be developed for the web. Some librarians are developing products like this, but it is the author’s view that these projects can be improved by faculty input. As Felix Chu points out, “Student needs as observed by librarians differ from their needs as perceived by the teaching faculty.” By partnering together professors and librarians can benefit from each other’s knowledge and expertise to enhance the student’s learning experience.

Conclusion

So how does one go about creating partnerships? Ruth Ivey pointed out four behaviors that are crucial in creating successful partnerships. They are finding a shared goal, developing mutual respect and trust, having competent partners, and ensuring ongoing communication. Wijayasundara lists listening, “proactiveness rather than negativity,” and collegial relationships as factors to success. Partnerships, by their very nature, are built upon relationships. The first
step in creating a partnership with the librarian is to open the channels of communication. At many universities the subject librarians try to meet with new faculty members. If this happens, seize the opportunity and invite them into your office or lab. Otherwise, seek out the librarian and introduce yourself. Look for and then vocalize common goals. Discussion of common goals can lead to creative projects which are mutually beneficial. Early in a partnership it is important to balance innovation with reality. The best partnerships take time to develop, because relationships take time to develop.

This paper has discussed several examples of librarian-faculty partnerships. These relationships offer several benefits to the individuals involved as well as the institutions they serve. A better understanding of the library resources helps the faculty members perform research more efficiently. Having a partner to help find articles can relieve or eliminate a source of frustration in the research process. Faculty members can be a great help to librarians in building a collection of resources that supports the research needs of the university community. Most importantly, these partnerships have a positive impact on developing students into an informed society of lifelong learners.

Even though librarians may not be an obvious choice of partner to help faculty members succeed in their research and teaching efforts, such partnerships have much to offer. Each partnership will be unique in its depth and breadth, depending upon the needs and goals of the participants. They can exist for a brief period or span several years. They can change from time to time. Not every class will be ideally suited to include an information literacy component, but great partnerships can emerge from unlikely situations.

References


