IT and Educational Technology: What's Pedagogy Got to Do with IT?

How IT staff can have an increasing role in teaching faculty about the pedagogy of technology

By **Shelly McCauley Jugovich** and **Bruce Reeves**

We recently had the opportunity to present "IT and Educational Technology: What's Pedagogy Got to Do With IT?" at the 2006 EDUCAUSE Midwest Regional Conference. The presentation addressed IT staff as teachers of pedagogy—not just trainers of how to use a tool—and how this change came about. We thought that the topic would capture the attention of many people in higher education, but we had no idea just how interested they would be. The presentation generated numerous questions and stimulated many conversations for the duration of the conference.

The topic centered on three issues:
- Recognizing the need for IT staff to teach both the mechanical skills of using an educational technology tool and its pedagogical uses
- Gaining acceptance of IT staff as teachers of pedagogy
- Measuring acceptance of IT staff as teachers of pedagogy

The presentation detailed our solutions to these issues and included recommendations for IT departments at other universities.

Recognizing the Need

At the University of Minnesota Duluth (UMD), as at many universities, the organizational structure separated the responsibilities for teaching the use of a technology tool ("Go to the Edit menu and click on Copy") from teach-ing the pedagogical application of the same tool. On our campus, Information Technology Systems and Services (ITSS) taught the mechanics of the tool, and Instructional Development Service (IDS) was responsible for teaching effective pedagogical uses.

During ITSS workshops, however, faculty began asking us how to teach effectively using technology tools (such as PowerPoint), in addition to questions such as how to animate a slide. Faculty recognized the need to combine instruction on using the tool with using it effectively for teaching. We realized that the organizational separation between ITSS and IDS was artificial and, as technology became woven into the fabric of teaching, made progressively less sense. Looking at other universities, we noticed a similar situation emerging. David Diaz, a faculty member at Cuesta College, exemplified this in his statement that "teachers will need to learn the pedagogical (not just technical) priorities related to instructional technologies."[1]

Gaining Acceptance

To gain acceptance of IT staff as teachers of pedagogy at UMD, we had to overcome four issues, which we found to be common at other institutions.
- Skepticism about IT staff as teachers of pedagogy
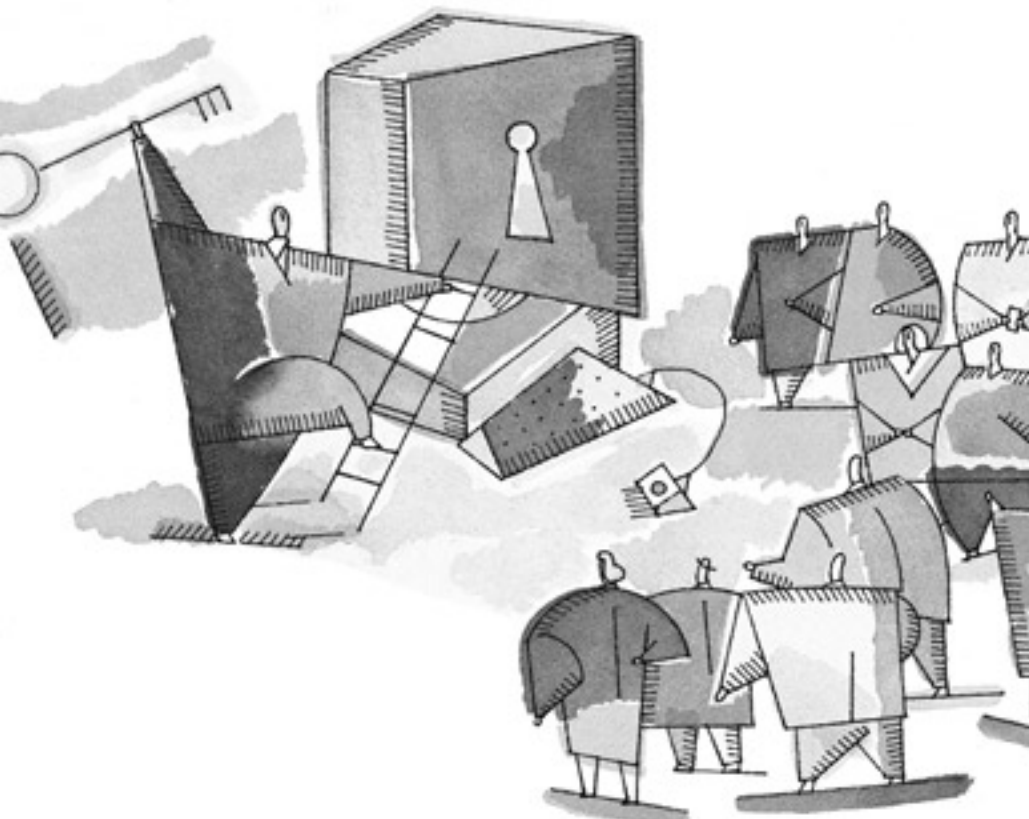- Organizational barriers
- Cultural differences among academic disciplines
- Matching personality to the job

Skepticism About IT Staff

Many faculty members were understandably skeptical over whether IT professionals have the ability and quali-fications to teach pedagogy. Traditionally, IT departments have not required pedagogical expertise when hiring staff because the majority of IT jobs do not require this background. As a consequence, when IT staff added technology training to their duties, the focus was on the mechanical use of the tool. For many years this was acceptable, but as educational technology became more commonplace and its use more widespread (including laptop initiatives and online education, for example), training sessions naturally turned to the pedagogical use of the technology.

At this point, IT staff without a background in pedagogy did not have a voice in the conversation because of their lack of training and experience in this area. The literature, both online and published, revealed some interesting beliefs about IT staff as teachers of pedagogy, as demonstrated by this quote from John Tarjan, a faculty member at California State University, Bakersfield:

> We have some great technical support people who in many cases are perhaps even more conscientious and helpful than

workshops we model effective uses of the technology tools we are teaching others to use. These activities give us the opportunity to establish and maintain credibility with the faculty.

Organizational Barriers

As mentioned, ITSS traditionally taught faculty the mechanical use of technology, while IDS addressed pedagogical application. Therefore, the idea of ITSS teaching faculty about pedagogy could not happen without addressing the organizational structure. The historical division of duties between ITSS and IDS was very clear, and some administrators were not eager to make changes. This resulted in ITSS instructors' keeping a low profile while teaching the pedagogical use of technology. Over several years, however, the addition of new faces and new ideas, a replacement in administrative personnel, and collaboration between ITSS and IDS to eliminate the barriers brought about the necessary organizational change. Although the two department structures remain intact, everyone involved understands the importance and benefit of not separating the mechanical from the pedagogical uses of the tool.

Cultural Differences Among Disciplines

Another issue we faced was that each discipline on campus has its own language or jargon, and within each discipline, a faculty member may have his or her own language. Department cultures are different; they cannot be approached as if cast from the same mold. Being sensitive to the particular style of each department and each faculty member was critical to the success of our work.

For example, the word "rubric" might be appropriate when discussing teaching with an education department faculty member, whereas some faculty from industrial engineering use the phrase "benchmarks for grading" to refer to the same concept. Some terms are not common across disciplines and can meet resistance in disciplines where the terms are atypical. Instead, we focus on what the faculty member wants his or her students to learn, and the faculty member

the faculty they support. However, they are not experienced in pedagogy, teaching, and learning. A wall separates us. It arises from differences in training, job function, language, and so forth.[2]

This comment came from Lisa Spangenberg, a self-proclaimed digital medievalist:

Frequently faculty who would like to use technology are bewildered by the jargon and by the unfortunate arrogance of the technical experts they must work with, who, for all their technical expertise are, not surprisingly, sometimes woefully ignorant about pedagogy, and have no interest or understanding of the humanities.[3]

On our campus, we heard similar comments from faculty in workshops, in hallways, and in offices. These comments can be paraphrased as: "We have another service [IDS] with 'real' pedagogy professionals."

We address such skepticism by demonstrating our experience with, knowledge of, and ongoing commitment to pedagogy. UMD and the ITSS department encourage and support the pursuit of coursework, degrees, and professional development in the pedagogical use of technology. Moreover, our work on campus with faculty members from all disciplines provides access to campus best practices on a regular basis. We publicly share with the campus community our credentials and experience in campus publications, meetings, workshops, and so forth, and in our

expresses these desires in language most appropriate to the discipline.

Matching Personality to the Job

A faculty member who attended an ITSS intensive seven-day workshop made the following comment: "You're not like normal IT people." When asked for clarification, the faculty member said that we (the authors) talk on their terms in non-techie language and that we are committed to their success instead of telling them what they should do or how they should do it. This sentiment was not isolated—feedback from other training workshops echoed a similar theme. These comments reveal the need for IT departments to match staff personality to the job. Working with faculty, an IT staff member should have a philosophy of working with the individual to help find an effective use for each specific situation based on the faculty member's needs (technical skill level, time constraints, resource availability, and so forth).

As ITSS expands its role within the university, the definition of a "normal" ITSS person also expands. For our positions, an IT background is only one of the requirements. The positions also require an understanding of teaching and learning and of life as a college professor. We also need the interpersonal skills to communicate this understanding to faculty. These interpersonal skills include the ability to

■ develop trust,
■ create a safe environment, and
■ empower the faculty member to direct his or her own learning.

This is not to say all IT staff should possess these skills. Instead, we seek a good fit between the job requirements and the IT staff member. Some people get into IT because of their love of hardware. To them, nothing is better than the glow of LEDs, the gentle whirr of computer fans, and the chatter of hard drives. These IT staff might not be comfortable working with faculty on a one-to-one or group basis.

At our EDUCAUSE conference presentation, some argued that peer mentoring between faculty members was sufficient for the development of educational

> We focus on what the faculty member wants his or her students to learn, and the faculty member expresses these desires in language most appropriate to the discipline

technology skills and that having IT staff address pedagogy was not necessary. While peer mentoring is a good option, one we use on our campus, we have found successful peer mentoring is subject to the same limitations of interpersonal skills listed above. Some faculty do not feel comfortable exposing their vulnerabilities to a colleague. Some faculty believe peer mentors take control of the learning. Even if peer mentoring among faculty is all that a campus is doing, ensuring that it includes the three interpersonal skills listed above is critical.

Measuring Acceptance

How did we measure whether ITSS staff were effectively teaching pedagogy along with technology skills? Although we did not pursue formal assessment measures, several factors indicated that ITSS's new role has been successful.

■ Faculty continue to ask how to effectively incorporate the pedagogical application of the technology tools they are learning.
■ Faculty continue to request workshops combining both technology and pedagogy from ITSS.
■ IDS staff have increased the number of workshops ITSS staff present both *for* IDS and *with* IDS.
■ The interaction and collaboration between IDS and ITSS has increased and appears seamless.

Recommendations

As we evaluated the process we have been through, we offer the following recommendations to our colleagues at other institutions who want to embark on a similar path:

■ Assess the current climate on your campus to help formulate a strategy.
■ Create a partnership with your faculty development staff, if you have not already done so.
■ Make an ongoing commitment to learn about pedagogy.
■ Create relationships with the faculty built on trust.
■ Model sound pedagogical practices in the services you provide.
■ Commit to hiring IT staff with pedagogical backgrounds.

If the attendance at our session and the subsequent conversations we had with colleagues were any indication, our presentation resonated with many IT staff, faculty, and administrators from other institutions. From what we have learned, many universities are somewhere along the continuum of IT's teaching the mechanical use of a technology tool and faculty development staff's teaching pedagogical use. For those wanting the distance between these two end points to decrease, we hope our experiences will prove helpful. *e*

Endnotes

1. D. P. Diaz, "Taking Technology to the Classroom: Pedagogy-Based Training for Educators," *Technology Source*, November/December 200,1 <http://technologysource.org/article/taking_technology_to_the_classroom/> (accessed August 11, 2006).
2. J. Tarjan and D. Spence, "What I (a Faculty Member) and What I (a Chief Academic Officer) Learned From Team Teaching in Both a Classroom and a Distance Learning Environment," *Exchanges: The Online Journal of Teaching and Learning in the CSU*, September 26, 2003, <http://www.exchangesjournal.org/print/print_1109.html> (accessed August 11, 2006).
3. L. Spangenberg, "About this Blog," *IT: Instructional Technology* (blog), November 2004, <http://www.digitalmedievalist.com/it/about.html> (accessed August 11, 2006).

Shelly McCauley Jugovich (smccaule@d.umn.edu) and Bruce Reeves (breeves@d.umn.edu) are Learning Technology Coordinators with the department of Information Technology Systems and Services at the University of Minnesota Duluth.