Identifying the factors that encourage faculty to start using technology in their teaching is a constant challenge facing university administrators. The challenge applies both to the use of technology in general and course management systems in particular. Administrators need to identify the factors that cause or contribute to faculty course management system (CMS) use so that they can better support the technology and educate faculty in its use.

This chapter discusses why faculty members choose to use course management systems. Some faculty members begin using a CMS when they teach an online class, or as part of their involvement in a CMS-based distance education program. Interviews with faculty and technology administrators around the University of Wisconsin System (UWS), however, reveal that most faculty members start using a CMS as a response to one or more of the following factors:

- they need to solve a pedagogical problem or challenge;
- CMS training becomes available;
- peers recommend it;
- departmental or administrative pressure/persuasion comes to bear;
- students request that such tools be used; or
- other factors arise, such as the need for cost savings or the desire to organize and manage course delivery.

Figure 5-1 shows faculty assessment of these factors’ relative importance.

**Addressing a Pedagogical Challenge**

This factor’s importance in faculty CMS adoption didn’t surprise us. Researchers have hypothesized that faculty use CMS technology to address specific issues that arise in their teaching. However, the emphasis on this factor in the survey results is somewhat at odds with the qualitative information gleaned during interviews with faculty and support staff. In interviews, faculty stressed efficiency and time-management challenges as the major reasons for starting to use a CMS. The high score of pedagogical reasons in the online survey probably results from a conflation of pedagogical with more practical issues, such as hosting student discussions, posting grades and quizzes, and providing additional course materials. Faculty mentioned that they used a CMS to:

- enable online discussion or increase communication with students,
- post grades online or do online quizzes or testing,
Faculty's Stated Reasons for CMS Adoption

- provide students with additional course materials, and
- address more complex pedagogical issues such as different learning styles among students.

Facilitating Communication with and Among Students

Faculty often stated that they started using a CMS to increase communication with and among students in their courses. Faculty members were especially interested in how they could use the CMS discussion tool to incorporate online discussions into their classes. Such a tool was not easily available to them outside of a CMS, so the desire for access to a discussion board became a factor in driving faculty to use a CMS. Similarly, although many campuses provide listservs or e-mail distribution lists of students by class, the CMS provided faculty with an especially convenient way to reach an entire class via e-mail. The CMS e-mail function is frequently more convenient than a distribution list because it operates from within the CMS application.

Gradebooks and Assessment Tools

The need for an online and secure gradebook has been a significant driving factor in CMS adoption throughout UWS. As awareness about federal student privacy regulations increases, there is a strong push for faculty to deliver grades to students in a secure and confidential environment. Faculty increasingly see course management systems and their gradebook tools as an easy way to achieve this, so they're taking it upon themselves to use this tool or are being encouraged by administrators to do so. Faculty are also attracted to the CMS's online gradebook because using it saves time for both students and faculty. Faculty
members recognize that such tools help them manage some of the administrative tasks associated with running a class. This is particularly valuable in large classes, where course management systems are used heavily.

The gradebook is not only a management tool; it also serves a pedagogical purpose. Many faculty described the gradebook as increasing the level of transparency in their class. Having their grades always available lets students monitor their progress and thus become, in a sense, more active in the class. As Laura Fingerson in the UW–Milwaukee Department of Sociology put it, “Having student grades up there has improved my relationships with students. There is no ‘secret gradebook’; [it] has improved transparency.”

As Figure 5-2 shows, most faculty believe the gradebook is an important CMS tool. However, faculty satisfaction with current gradebook tools is much weaker. While 68 percent of faculty regard the gradebook as important, only 13 percent were “very satisfied” and found the gradebook to be excellent.

Overall, a slim majority (51 percent) of online survey respondents expressed satisfaction with the gradebook. In interviews, however, faculty complained extensively about CMS gradebook tools. They frequently had to spend more time than they would have liked using the gradebook, and they found its functions limited. Figure 5-3 illustrates faculty satisfaction with the gradebook tool.

Faculty expressed particular frustration with the gradebook’s inability to calculate

Figure 5-2. Faculty Rating of the CMS Gradebook's Importance (N = 548)

Figure 5-3. Faculty Satisfaction with the CMS Gradebook Feature (N = 533)
grades (especially grade weighting) and handle class enrollment. Enrollment-related problems seemed exacerbated when faculty used a CMS integrated with a student information system.

The need for an online quizzing or assessment tool has also driven some faculty to adopt a CMS, according to Kayt Sunwood of the UW–Superior Faculty Development Center. As with the gradebook, the assessment tools’ lack of functionality, difficulty of use, and inflexibility caused the faculty enormous frustration. Figure 5-4 illustrates the importance faculty attach to assessment tools, and Figure 5-5 indicates their satisfaction with them.

Faculty members were frustrated because the assessment tools were time consuming and did not allow for data portability across course management systems or between course management systems and other applications, such as word processing programs. CMS upgrades seemed to cause particular problems in use of the assessment tools. Numerous faculty described how they lost many of their quizzes and test banks in the upgrade process and had to manually reenter them. This resulted in significant time expenditures and growing levels of frustration with the CMS.

Despite these problems, however, some faculty members continue to look favorably on CMS adoption because of the assessment capabilities it offers. A need to contain the costs of photocopying exams is also a frequent motivating factor.
Providing Additional Course Materials

Content management and presentation is by far the most compelling reason for faculty CMS use. Faculty frequently cited the desire to easily provide materials to students over and above those provided in class. Others said they wanted to provide students with actual lecture materials so that they might more easily follow along in class or review what was discussed in the face-to-face setting.

Addressing Other Pedagogical Issues

Apart from the reasons described above, few faculty chose to use a CMS to resolve other pedagogical or teaching problems. Numerous support personnel pointed out that some faculty who ask them to help resolve a technical problem are, in fact, asking for assistance with a pedagogical problem for which a CMS might provide a solution. Where faculty did start using a CMS because of a specific pedagogical problem, their reasons were quite varied. For example, LeeAnn Garrison, chair of the Department of Visual Art at UW–Milwaukee, started requiring her faculty to use a CMS to connect the more theoretical “foundations of art” courses with the more practical, hands-on studio courses. Using a CMS during studio courses let faculty incorporate content from the foundational courses, so that they could refer students back to the images and art they learned about earlier.

However, faculty generally did not speak much about the pedagogical challenges driving them to adopt and use a CMS. Most faculty members seemed to use a CMS because it offered practical time- and content-management solutions.

Peer Recommendations

Peer recommendations are a powerful factor in persuading faculty to start using a CMS. More than 15 percent of the online survey sample cited this as the primary reason they began to use the technology. In qualitative interviews, however, faculty cited this factor even more frequently to explain why they started to use a CMS. Faculty learned about potential CMS uses and advantages from a wide range of colleagues, not just those in their immediate department. Although they might not always be the primary reason faculty start using a CMS, peer recommendations do significantly influence faculty adoption and use of the technology.

Departmental or Administrative Pressure

In the online survey, relatively few faculty members (40) listed departmental or administrative pressure as an important factor driving their CMS use. But again, in interviews, faculty and administrators frequently referred to this factor as playing a large role in faculty adoption. CMS adoption rates tend to be far higher where this is an administrative priority. Administrators at the level of dean and department chair also play a strong role in shaping faculty CMS adoption. In interviews, many faculty ascribed their initial CMS adoption to a department chair’s or dean’s influence.

Examples from around UWS help shed some light on how administrators can shape CMS adoption and use. Encouraging fac-
Faculty to use technology in their teaching has long been a high priority for UW–Colleges. Early on, senior administrators decided to promote and facilitate faculty CMS use whenever appropriate. Administrators used various strategies to encourage faculty CMS adoption. In some cases, they offered stipends to faculty as incentives. The administration also offered a wide range of training, often at a distance, using programs such as Placeware. Among its emphases, this training showed faculty various CMS pedagogical uses by having those already using a CMS showcase what they had done.

Also, in fall 2002, UW–Colleges created a course shell for every course offered and informed faculty members of their availability and that they were free to use them or not. This strategy has the potential to backfire, but it appears to have worked for UW–Colleges. In a recent audit, technology administrators found that fully one-third of courses were making significant use of the CMS course shell. UW–Colleges faculty viewed the strategy positively. They regarded the automatic creation of a course on the CMS as a convenience and as an incentive for them to use a CMS where they might not have otherwise.

Department administrators can also have a strong positive effect on faculty CMS use. The UW–Milwaukee School of Nursing provides an example of a successful departmental initiative to promote CMS use. Senior department administrators encouraged (although never required) faculty to adopt a CMS in their teaching and even took courses from the campus Learning Technology Center themselves. The dean of the School of Nursing was among the first to use a CMS in her teaching, and she constantly stressed to her faculty how easy it was to learn and use. This sent a strong message to the faculty and resulted in the widespread and quite effective adoption of the technology, according to Mary Wierenga in the UW–Milwaukee School of Nursing.

Administrative initiatives to encourage faculty CMS use can backfire if poorly handled. In some UWS departments, administrators decreed that their faculty had to use a CMS in each of their courses. In nearly all cases, this resulted in widespread faculty resentment, and faculty soon stopped using the technology. Enforced (and consequently halfhearted) CMS use also resulted in serious student dissatisfaction. In one department, students complained in departmental meetings about the faculty’s sporadic CMS use. Students said they never knew when they should be checking the CMS for updates and felt that much of the activity structured within the CMS was busy work.

**Student Requests**

Faculty consistently rated student requests as a minor factor driving their CMS adoption. There is a widespread misconception that students are enthusiastic about course management systems and are a large factor driving their use. In interviews, faculty and administrators consistently argued that this was not the case, and this is reflected in the survey results shown in Figure 5-1 above.

**Other Reasons**

In both the survey and the interviews, faculty members gave several other reasons for starting to use a CMS (Figure 5-6). These include

- the need to provide distance education (although most UWS use is for courses that also include face-to-face sessions);
- faculty initiative (one faculty member said, “No one cares what I do”) and faculty desire to teach with technology as well as to advance their careers; and
- grants from the Learning Technology Center or other sources (some faculty
started using a CMS because doing so was specified in a grant they had been awarded.

Relatively few faculty members used a CMS for the security it offered. The capacity to post materials and conduct activities in a password-protected environment was not a significant factor driving faculty to use course management systems. This was clear from both the qualitative interviews and the online survey.

This chapter demonstrates that faculty members adopt course management systems for many different reasons, but especially for the pedagogical and time-saving functions they offer. Peer pressure and departmental or administrative persuasion are also important incentives. Chapter 6 will discuss how these factors are creating a powerful momentum, with faculty members starting to use the technology at ever-increasing rates.

Figure 5-6. Other Stated Reasons for Faculty CMS Adoption ($N = 87$)
Endnotes

1. The fact that most students don’t use their university-assigned e-mail addresses is a recurring problem and affects even CMS use.

2. The Federal Education Rights and Privacy Act (FERPA) regulations require that faculty protect the confidentiality of grades as part of each student’s record. Some faculty find that they must follow elaborate processes if they are posting student grades outside of a CMS. Procedures vary but are often cumbersome. Scott Cooper of the UW–La Crosse biology department referred to these procedures as “a real hassle.”

3. Many faculty members, through their CMS use, find themselves exercising a form of “accidental pedagogy.”

4. In interviews, Taggert Brooks of the UW–La Crosse economics department and other faculty mentioned that administrators and department chairs encouraged technology use in general and CMS use in particular in response to pressure or encouragement from accreditation bodies.

5. Where faculty members don’t see the role technology plays in their course, their CMS use will likely be limited. Several faculty members interviewed had started and then stopped using a CMS. In many of these cases, the faculty member had been told or encouraged by the dean or department chair to use a CMS but hadn’t restructured the course to effectively use the technology. Students frequently complained to the faculty member about such CMS uses, further reducing the likelihood they would continue using the software.