Functional Uses of Course Management Systems

This chapter discusses in detail how University of Wisconsin System (UWS) faculty use course management systems and related tools. Most use a CMS for regularly scheduled face-to-face classes, although many use the software for distance education as well. Faculty also use course management systems in many other creative ways.

Course Types

Most UWS faculty members use a CMS to support their regular face-to-face teaching, as Figure 7-1 illustrates.

Twenty-seven percent of the survey sample consisted of faculty who use a CMS to teach fully online classes. Some might be surprised at the fact that most faculty use a CMS for teaching face-to-face or hybrid classes, where online activity replaces some face-to-face meetings. Faculty CMS use in teaching fully online courses is probably even lower than the survey indicates. The higher percentage is likely a result of the heightened interest that faculty teaching fully online classes have in responding to a survey on course management systems.

Figure 7-2 breaks down the “Other” category in Figure 7-1.

Departmental or Organizational Support

Survey responses and interviews with faculty and support staff clearly show that course management systems are being widely used to support the activities of departments, other organizations, and other activities. Many departments use a CMS as an organizational tool, to post documents to share, or to carry out discussions online using the discussion board. For UW–Colleges department members, who reside at 13 different campuses, this is an especially useful tool, said Pat Fellows, an instructional technologist for UW–Colleges. Departments at other UWS institutions also use course management systems, for example,

- as a recruiting tool for potential students, to give them a taste of what their program might look like, according to Frank Hanson, Department of Music, UW–Whitewater;
- to help run and organize national and international scholarly associations and interest groups, according to Kayt Sunwood, Faculty Development Center, UW–Superior;
Figure 7-1. How Faculty Members Use Course Management Systems (N = 571)

Figure 7-2. Other CMS Uses (N = 43)
to organize and run student organizations, such as a campus chapter of Habitat for Humanity, according to Tim Nissen, Department of Sociology, UW–River Falls;

- to run interinstitutional projects and grant-based projects, according to Scott Cooper, Department of Biology, UW–La Crosse; or

- as a general organizational tool for an online program.

Many faculty and staff experienced problems when trying to use course management systems for organizational and departmental support. The most serious of these was the closed nature of the CMS, which made it difficult for people who were not members of a particular institution to gain access. The situation seemed to become even more difficult as course management systems obtained tighter access controls when tied into enterprise resource planning systems such as PeopleSoft's Student Administration System. This difficulty related more to policy than to technology integration. In all cases, faculty and staff had some difficulty using the CMS for the purposes they desired because the systems were not sufficiently flexible.

The lack of openness of course management systems and their course-centric nature affects faculty use in several other ways. A tension exists between the technology's structure and closed and proprietary nature, and faculty's desire for greater access and openness. A constant selling point of course management systems is that the security, class-centric structure, and password protection they offer constitute a big advantage for faculty, and core features of the technology, such as discussion boards, the gradebook, and groups, help faculty create a sense of community in the course.

All these things are true (for example, security means that many faculty and staff use a CMS to conform to Family Education Rights Privacy Act privacy regulations), and faculty members certainly appreciate these aspects of the CMS. Many faculty find additional advantages in the course-centric and private nature of CMS sites. Barry Cameron, Department of Geophysics, UW–Milwaukee, and Sharon Giroux, Department of Hospitality and Tourism, UW–Stout, said they like that the course sites are closed to all but the students in that course, because they share some of their in-progress research with their students and would prefer not to post such information to a more public site. Others use the CMS to share readings with distance education classes. They believe they can share these readings in the course of teaching with only those registered for a class and remain in compliance with copyright laws.

However, while faculty members appreciate these benefits, they also find aspects of the CMS overly compartmentalized and restrictive. This affects faculty in a number of ways. First, as described above, it limits the collaboration they would like to have. One of the major benefits of course management systems is that they make distributed learning possible. However, the software's closed and almost silo-like characteristics make it difficult to conduct collaborations or share materials or activities with people outside their institution. For example, Tom Lacksonen of the UW–Stout Department of Industrial Management runs a collaborative project with some students and colleagues in Turkey and would like to use the CMS to facilitate collaboration. He has been unable to do so because the people with whom he wants to collaborate are not members of his institution and therefore cannot get easy access to CMS accounts. Similarly, John Kunz at the UW–Superior Center for Continuing Education, who helps support the International Institute for Reminiscence and Life Review, wanted to use a site on the CMS to facilitate discussions and post member profiles. However, people outside the institution could not gain access to
the CMS site without Kunz’s going to enormous lengths to establish exceptions to the normal university policies of allowing only faculty, staff, and student access to the software.

The closed and compartmentalized nature of course management systems limits faculty’s ability to share their course materials and means that no part of their course can be publicly available. Many respondents want to share course content with colleagues in their departments or colleges, or beyond. Others want at least part of their course to be public, either because they want colleagues at other institutions to be able to see how and what they are teaching or because they believe that part of the university’s role is to create this kind of public knowledge. Taggert Brooks of the UW–La Crosse economics department said he “wants the externalities of putting material online.” He makes his materials available online and can surf the Internet to see what others have made available. Looking at how others are teaching econometrics helps him improve his own course. Brookes argues that this is “fantastic for society as a whole” and that creating these sorts of externalities is “part of why we get paid” in the university. The closed and silo-like nature of course management systems reduces that access and those externalities.

**Enhancing Distance Education Courses**

Faculty members use course management systems in distance education not only to provide wholly online courses but also to supplement distance education courses offered through other media such as compressed video or interactive television. Faculty provide course documents, host online discussions, and use the CMS assessment tools while conducting class sessions over video or television networks. The use of course management systems to supplement distance education courses offered through other media is an application that has been largely ignored. It is an important and creative use, and one that highlights the common misunderstanding that distance education is offered either wholly online or through some other medium. Increasingly, those media are mixed.

**Limited CMS Uses**

Some faculty and staff use a CMS only for one narrow purpose, usually to provide a secure online gradebook for a face-to-face class or for one that uses another form of support, such as an extensive Web site.

**Cost Reduction, Organization, and Time Savings**

Many faculty use a CMS specifically as a cost-savings tool, for example, to reduce costs of paper duplication. In some cases, those costs merely shift from one part of the institution to another, while in other cases, costs are actually reduced.

Faculty also use course management systems as a way to organize themselves as
teachers and to save time. Some emphasized CMS management assets, which require a certain discipline to use effectively. Many use the technology as a sort of class repository. Tim Nissen of the UW–River Falls sociology department said the CMS “organizes me ... let’s me stash things” and provides a framework for both him and his students. In response to the online survey, a tenure-track engineering faculty member from UW–Platteville said that course management systems “are a convenience. It takes time initially to put course materials on the Web, but once there, I know where they are. I tend to lose papers, and too many papers fill up my office. It takes time to place something online, but once online, I need only make slight modifications between semesters.”

Although many faculty members find course management systems time consuming, others say they can save time by using a CMS. One way they do this is by using a CMS in very large classes to cut down on housekeeping tasks and student requests. If all course documents are available in the CMS and students can get their grades through it, faculty members have fewer students coming to their office and staying after class. In classes of hundreds of students, this time savings can be considerable. Scott Cooper of the UW–La Crosse biology department commented that he wanted his interaction with students to be “quality time,” and the CMS dramatically reduced the mundane tasks and requests from students.

This use of a CMS as a management and organizational aid hasn’t received much emphasis from CMS vendors or administrators and trainers supporting faculty use of the technology. By emphasizing the pedagogical benefits of course management systems, these parties tend to sideline other CMS aspects. This is unfortunate, because the organizational and management features and advantages of course management systems hold enormous promise for faculty. These benefits are relatively quickly and easily realized, while the pedagogical payoffs take longer and are frequently questionable.

**Third-Party Tools**

A number of faculty and staff use other tools in conjunction with a CMS. In part, this use seems to stem from their frustration with the CMS tools. Figure 7-3 shows the percentage of survey respondents who use other products in conjunction with a CMS.

![Figure 7-3. Faculty Use of Outside Tools to Supplement a CMS (N = 563)](image-url)
Figure 7-4 illustrates which outside tools faculty use most commonly to supplement the CMS.

As Figure 7-4 shows, where faculty supplement their use of the CMS, it is with an outside gradebook product. Faculty members frequently use Excel or other spreadsheets to keep or calculate grades, but they also use other gradebooks. Use of third-party gradebooks is not surprising, given respondents’ mixed feelings about these tools in the CMS.

Ten percent of survey respondents also reported that they use a different discussion tool from that included in the CMS. The comparatively high level of satisfaction with the CMS discussion tools largely explains the lower rates of third-party discussion tool use. Figure 7-5 illustrates the level of faculty satisfaction with the CMS discussion tools.
Apart from third-party gradebooks, quiz tools, and discussion tools, the most frequently used third-party software is mathematical and scientific software, such as Scientific Notebook. Science and mathematics faculty need easy ways to include scientific notation in various parts of the CMS. CMS vendors have made progress in providing these tools, but even the most recent versions of some major CMS products do not meet faculty needs. This will continue to be a disincentive for faculty to use the technology.

**Separate Web Sites**

A minority of faculty also use instructional Web pages to supplement course management systems. These sites vary in nature. Most are created for one or more of the following reasons:

- In response to requests or training from administrators or CMS support personnel who want faculty to keep content separate from the CMS to ensure content stability or to simplify the task of upgrading software or moving to a different CMS.
- To keep content stable when two or more faculty are teaching the same course, such that core course content resides on a Web page outside the CMS while faculty modify their own information within the CMS itself.
- To provide the bulk of course content, reserving the CMS for interactive and perhaps more technologically complex tasks such as assessments, discussions, or the use of a gradebook.
- To enable a particular part of a course to be public.

Figure 7-6 shows the percentage of faculty that use Web pages in conjunction with a CMS.
Tools for Pedagogy

Clearly, faculty members use course management systems for many purposes and in a variety of venues. They prefer some CMS tools over others and make heavier use of some CMS features than others. The results presented here demonstrate that because faculty are not completely satisfied with CMS gradebooks and quizzing tools, they often supplement the CMS with other tools that support the needed functionality. These tools often include third-party gradebooks and Excel spreadsheets, and some faculty also provide Web pages to supplement their CMS-based courses. How faculty and staff use course management systems for pedagogical purposes is an interesting question that we will explore in Chapter 8.