Case Study

Ross Caslon

BY ANN KOVALCHICK

THE SUMMER INTERSESSION

Ross Caslon was baffled. As soon as possible, he needed to initiate a series of training sessions for 750 faculty members at Lane State West (LSW) on how to use WebPath, a course-management tool, to support web-based instruction. LSW was planning to roll out WebPath, university-wide, within the next year. WebPath allowed faculty members with limited technology skills, or faculty members who had limited interest in learning technology skills, to gain familiarity with the Web as an instructional resource. Yet the System Administration (Sys Admin) group of the Office of Technology and Communications (OTC) seemed reluctant to set up and support a test environment and to provide demo course accounts to use in faculty training sessions. They preferred to build their own course management tool and didn't appreciate the high degree of customization WebPath offered, since it complicated their efforts to automate LSW's information and data integration systems.

The director of OTC had formed a WebPath implementation project team consisting of Zinny Welch, OTC's UNIX® Group manager, and Sam Gilbert, its database administrator. Jamie Witkowski, a lead member of the Help Desk staff, had also been asked to participate. After working for five years in the local school district as a technology lab manager, Jamie had taken a position at LSW, so that she could complete her graduate degree. Due to her previous experience working in an educational environment, she had established herself as a leader among the Help Desk staff as she sought to better coordinate LSW's technical support services. As the only instructional designer on the project team, Ross worried that the others were unlikely to imagine the challenges most faculty members faced when using technology as a teaching resource. Zinny and Sam were entirely focused on engineering the production server environment and developing the data-processing models that would support WebPath's portal and course features. Zinny had made it clear that the UNIX® Group didn't want to deal with the "end user needs," though to Ross it seemed that the group of programmers and server administrators had some very clear ideas about how the faculty should be allowed to *use* the technology tools.

As with most IT (information technology) technical staff charged with network and system administration, the UNIX® Group was primarily concerned with data security, redundancy, integrity, and backup and preservation. Given the complexities of maintaining a university network, the UNIX® Group also sought to automate where possible, and this meant that a standardized set of user practices was desirable. OTC's director hadn't designated a project sponsor, and it was unclear exactly who was supposed to manage the project team, leaving the four of them to work out their conflicting priorities without clear leadership. Ross wasn't sure how successful he would be ensuring that the faculty did more than use WebPath simply to post their course syllabi.

At the moment, Ross felt bogged down by Zinny's concern about not setting too many precedents for providing services that couldn't be automated. Until he had figured out how to completely automate the process of creating course and user accounts in WebPath, he wanted to limit access to the system. The university had yet to tackle the challenge of upgrading and synchronizing a number of information systems. LSW's student data system (SDS)—the source of the faculty, student, and course data that populated WebPath course accounts—and LSW's directory service—the source of user-authenticated data—weren't linked in a logical fashion. Furthermore, no one from the SDS group was on the project team. As a result, the UNIX Group faced some thorny data-management issues. Zinny had also disabled the chat tool, claiming it presented a security risk, since it did not run under SSL (Secure Socket Layer) and, until the vendor could resolve that, he considered it a network and data security risk.

Ross had persistently stated at every meeting over the past six months that the features the faculty needed in order to use WebPath meaningfully ought to drive the management of the WebPath implementation. How could he reasonably expect the faculty to use WebPath when he couldn't provide an authentic learning environment for them to see how WebPath might be used? It was hard enough to assist the faculty in using new technologies on campus when critical support services were not developed or coordinated. While most classrooms were supposedly wired with thernet connections, the faculty constantly pointed out that they were unable to use computer technologies at the point of instruction. Consequently, Ross assumed that most students would be expected to use WebPath outside of their classroom experiences.

Across the university, interest in using online technologies to support distance and continuing education was increasing. The staff in LSW's hugely successful print-based correspondence study program in the Office of Continuing Education (OCE) was anxious to use WebPath to jump-start LSW's entrance into the distance education market. Ross knew that the OCE staff planned to use WebPath to deliver the same content that the faculty had previously given them to edit into print-based modules. In addition, the faculty's skepticism regarding the level of support available worried Ross. If the faculty didn't feel that the IT unit was responsive, it wouldn't be possible to help them see the added value that instructional technologies could offer. He had to speak up: "Look, I can develop a series of faculty training sessions and include the technical support staff from the academic departments. They're our first line of support—they'll help relieve the load of calls directed to the Help

PART II: CASE STUDIES

Desk." Ross looked over at Jamie Witkowski. Jamie's Help Desk was chronically understaffed, and, with only one full-time staff member on hand who was familiar with Web-Path's features, Ross was also worried that the faculty wouldn't be able to rely on the Help Desk for user support. "We've got to provide training for the technical staff in the academic departments as well as for the faculty. We need some demo course accounts for people to use and to play with as part of a training and orientation process." Ross hoped that, by including the technical support staff, the Sys Admin group would see the value of moving ahead with account creation before all the kinks were worked out. Getting a training environment up and running as soon as possible was his first priority.

"It *would* help if the technical support staff had a few trial course accounts," Jamie added. That way we could start learning the product, too. None of the Help Desk staff are familiar with the product." Jamie passed around a sheet of paper with a Venn diagram. "Here's a model of how I think we should approach this roll-out" (see Figure 4–1).

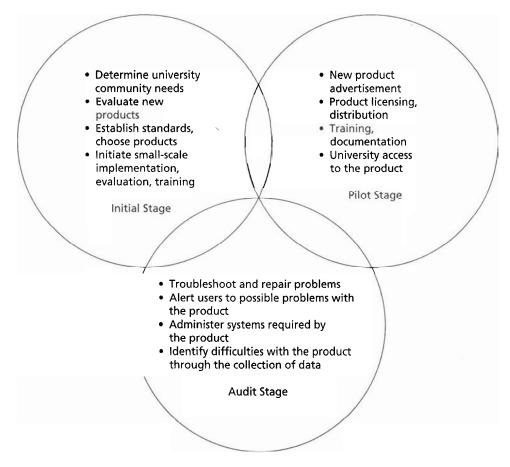


FIGURE 4–1 Conceptual Model of New Product Roll-Out

With a quick glance at Jamie's model, Zinny waved away the paper and reluctantly agreed to set up a dozen test courses for training the faculty and technical support staff. "That ought to be enough. We really can't burn the calories to support a training environment, too, not if we're going to have this roll-out ready by the end of the summer." Zinny was worried that his group had too much to do and not enough staff. He had initially thought that the WebPath implementation would be a simple process, but the complications were piling up fast, and he was annoyed that the product had some bugs that required constant tinkering by Sam. He wanted Sam working on other projects; adding test courses would mean that Sam would end up running a lot of manual processes until they could get the information systems functioning properly.

Ross winced. Twelve temporary accounts could hardly provide an optimal training environment for the faculty or for the departmental technical support staff. Ross consistently heard from the faculty that "OTC wasn't any help." Although Jamie had worked hard over the past year to staff a functioning support desk, the OTC had to undo years of negative perceptions among the faculty regarding its technical services in support of instruction. Ross had two years worth of survey results of the faculty's perceptions of the use of information technologies for instruction. Unfortunately, not much attention had been paid to these data. Although it was true that the response rate had been low, Ross wondered if little attention was paid because the results had reflected a degree of dissatisfaction with OTC's academic support, yet LSW was not an exception. Didn't everyone know by now that the major barriers to faculty use of information technologies were the lack of support and the lack of time to learn technology and redesign course materials? Maybe WebPath made it a little easier, but it alone would hardly make a dent in addressing these two problems.

"I like this model, Jamie," Ross said, studying it carefully. "I think we're in the initial stage right now." Reluctantly, he added, "With the 12 demo accounts, I guess we can do a small-scale implementation and training pilot project." He was the junior member of the team and doubted that his recently completed MA degree in education from LSW carried much weight. Even most of the faculty thought he was still a student, since he had been working on the degree for years. He had to take what he could get.

Zinny spoke slowly as if having to, again, point out the obvious. "This model also includes the evaluation of new products. WebPath is basically a lousy product. The company isn't mature enough. The technology isn't mature. Its software design model is faulty. Even its business model is bad—the company basically wants to build us a customized system that will make us wholly dependent on it for upgrades, and we'll pay through the nose on consulting fees. So we've got to simplify our level of technical support and aim for bare bones functionality." Zinny folded his arms across his chest. He had made his point.

THE FALL SEMESTER

"Very nice! What a high-end facility! It's perfectly designed for using any technology imaginable!" Professor Ruth Newton was clearly impressed. An enthusiastic and early adopter of technology, Ruth was one of LSW's champions. When the Web was in its infancy, she had painstakingly mastered HTML in order to build an interactive chemistry lab and, since

PART II: CASE STUDIES

then, had received a number of external and internal grants to develop materials for delivery in a web and CD-ROM format. Ross knew she considered WebPath with some disdain. She thought the interface too bland and had wanted to give it her own look and feel. Ross was secretly relieved that she couldn't. Her handcrafted interface for her own web materials was filled with things that blinked, dashed across the screen, and usually froze up any machine that didn't have sufficient memory or the very latest browser. In addition, her page took forever to download over a dial-up modem connection. Ross was fairly certain that students could reliably access her materials only from an on-campus location.

Ross handed her the list of participants (see Figure 4–2). "Seven faculty confirmed by late yesterday that they would attend the session today. And then there will also be three technical support staff from different departments."

Ross had followed up on Jamie's suggestion that Ruth lead the WebPath training session. Jamie and Ruth had worked together on a project, and she admired Ruth's technical skill. Though plenty worried that Ruth's "high-tech" experience might eclipse the instructional emphasis he had wanted to incorporate into the training session, Ross had to admit that she had effectively used animation to create a series of 3-D analyses of molecular change for use in her interactive chemistry lab. She had crafted a visual model of a DNA helix that students could rotate in order to see proteins linked to the helix under various conditions. She had been motivated to do this to address a recurring problem: Students were unable to visualize dynamic molecular change using the two-dimensional images typical of a textbook. She also claimed that her students' test scores had improved since she began us-

Introduction to WebPath: Using the Web-Based Instruction

Confirmed for attendance on 8/31/01

- 1. Joe Cabrini, Asst. Professor, Biology, College of Arts & Sciences: jsc7u@lswest.edu
- 2. Prasad Mehta, Professor, Aviation: pmf4r@lswest.edu
- 3. June Schoney, Asst. Professor, Marketing, College of Business: jjsOr@lswest.edu
- 4. Pat McGuffey, Instructor, Art Education, College of Fine Arts: pam2w@lswest.edu
- 5. Debbie Anderson, Asst. Professor, School of Nursing: dja6y@lswest.edu
- Chen Yin-Zdong, Assoc. Professor, Political Science, College of Arts & Sciences: yzc5t@lswest.edu
- 7. Rini Frankel, Manager, Sports Recreation, School of Health: rrf5t@lswest.edu
- 8. Dave Barnouw, Tech Manager, Math, College of Arts & Sciences: djb6e@lswest.edu
- 9. Cherie Six, Webmaster, College of Fine Arts: cms4r@lswest.edu
- 10. Frank Huey, Lab Manager, Physics, College of Arts & Sciences: fwh8z@lswest.edu

ing her materials as required homework exercises. The information Ross had gathered seven months ago indicated that both the faculty and technical support staff had limited knowledge of how WebPath might be used to support effective instructional strategies. Ross thought that Ruth might be able to share her experiences and that, along with the \$300 stipend provided to the faculty attending the training, he would be able to build a group of willing WebPath users.

Ross pulled out the training session materials. "Maybe we could take a few minutes and review the training session agenda? I never heard back from you whether there were changes and how...."

"Jamie! This is a fabulous room! I see you're equipped for wireless too!" Ruth fondly greeted Jamie.

"It's probably the smartest classroom on campus," Jamie answered. "Though, of course, it's not a classroom. Mostly we use it for our staff meetings and conferences."

"Ross! I have an idea." Ruth turned toward him. "Let's use the question-and-answer period to demonstrate some of the advanced technologies available here. Jamie, you're set up for Internet video conferencing aren't you? You wanted to show collaboration, right, Ross? I could go down the hall to Jamie's office and take questions and answers online...."

THE SPRING SEMESTER

Ross had spent all of Friday afternoon looking at the WebPath courses offered in the fall by the seven faculty members who had attended the training session at the start of the semester. He could identify only three courses that appeared to have been in use over the whole semester. The other four courses had some content in them but mostly contained syllabi, bibliographies of course readings and recommended readings, lectures posted using SlideShow, lecture notes, and study guides. The three courses that seemed most active had used the discussion threads and two of those courses had extensive lists of URLs in the Cybrary. He looked carefully at all the course syllabi and then quickly added up the total number of different types of assignments and assessments listed within the syllabi of the seven courses:

- 1. Six courses required a final paper.
- 2. Four courses required a final individual project.
- 3. Two courses required a final group project.
- 4. One course required a final individual presentation.
- 5. Three courses listed multiple-choice midterm exams.
- 6. One course required students to keep a biweekly lab journal.
- 7. Three courses used weekly in-class quizzes to review reading assignments.
- 8. Two courses required students to submit a bibliography.

All courses except one listed weekly lecture topics and readings. The exception was Pat McGuffey's course, which she had organized around students' weekly presentations.

Ross looked again at the syllabi of the three courses that used the discussion threads. Two had used the discussion tool to encourage weekly postings, though the student postings "I enjoyed the ability to post announcements in cyberspace."

"I use it to enhance my traditional course but not to replace traditional features, like books." "The Discussion board is neat."

"Probably the two features that WebPath has that my existing on-line syllabus does not are the announcements and the e-mail."

"It was great! I could access it from the airport in Houston once when I needed to add an assignment."

"Good one-stop model for moving around documents!"

"I like that I didn't need to know how to make a web page to make a list of web links for my students to visit."

"The students really appreciated the online grade book."

"It was wonderful to be able to upload handouts rather than have to spend time in class passing them out."

"I was better able to organize my course."

"The students loved it. They really learned a lot!"

FIGURE 4–3 Faculty Comments Regarding Use of WebPath

struck Ross as weak and perfunctory. The other course had used the discussions to manage post-lecture topic reviews and looked to be the most heavily used, although he knew the particular course, June Schoney's Introduction to Marketing, was a large class of nearly 175 students.

It seemed to Ross that there was nothing more than information delivery going on here, yet the pilot faculty had all reported positive reviews of their experience using WebPath (see Figure 4–3). They thought it was easy to use, especially the e-mail feature since it allowed them to send e-mail quickly to all class participants. They also liked the fact they could easily post lecture notes, as well as direct students to a list of online resources using the Cybrary. In spite of the positive reviews, however, no one was interested in redesigning his or her course to obtain the \$500 stipend he could offer as an incentive. Debbie Anderson had expressed some interest, but, after talking with Ross, she decided it would take too much time, and she needed to spend the summer working on research that would count more toward tenure.

The report back from the technical support staff suggested that WebPath was a lot of trouble for them. After the training session, Ross had offered course accounts to the faculty in the departments where the technical staff worked, based on their recommendations. Although it looked to Ross that these faculty members had used their WebPath courses in much the same manner as the seven faculty members who had attended the training session, the technical staff had described numerous problems to him. One faculty member had to abandon the WebPath course altogether after trying to upload his 30-page syllabus and the account had inexplicably froze. "I couldn't fix it and there didn't seem to be any point in telling you," Cherie Six had said to Ross. "I just designed a separate web site for him."

All three of the technical staff had reported that none of the faculty in their departments had asked how to use the asynchronous discussion or e-mail tools. They had been excited to find a chat tool option in WebPath, but, when they attempted to use it and found it disabled, it really dampened enthusiasm. Frank Huey had gone ahead and found a chat tool, which he set up on their NT server, and it had been wildly popular.

Dave Barnouw concluded that the math faculty members weren't interested in using WebPath because there was no easy way to produce specialized math characters. Frank had also said that the physics faculty members weren't too impressed with WebPath, since it "didn't do anything." Cherie reported that the fine arts faculty liked the fact that they could scan artwork and easily post image files for students to review after class, although she had heard some students complain that now they had even more work to do.

Ross knew that the director of OTC would want the project team to offer suggestions for WebPath training and implementation when they met with him next week. He also knew that Zinny was recommending against its implementation. Jamie could go either way. Her analysis had shown that there had been a lot of user login problems, but that was a relatively simple training problem. Ross didn't have much to go on. There wasn't even one course he could point to that had used WebPath for more than information delivery. All he really had was a list of positive comments.

What WebPath training and implementation suggestions should he make?

PRELIMINARY ANALYSIS QUESTIONS

- 1. What are the primary factors in this case that might have implications for training?
- 2. Given the factors identified in question # 1, how would you design training to meet various stakeholders' needs?
- 3. Suggest strategies to increase the probability that faculty members will apply what they've learned during training to their own online teaching.
- 4. Describe the impact of unclear project leadership on Ross's effort to encourage the effective uses of WebPath.

IMPLICATIONS FOR ID PRACTICE

- 1. What information-gathering and analysis methods can instructional designers use to determine the effect of context on ID decisions?
- 2. How can an instructional designer meet the needs of learners who go to training with vastly different backgrounds and ways of thinking and who have widely different goals?
- 3. What are the ways that an instructional designer can affect an organizational context to ensure transfer?