Principles for Building Success in Online Education

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The emergence of online education raises important considerations for faculty and administrators planning to develop distance education programs on their campuses. Here, two administrators share their six years of experience with a successful online initiative.

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As higher education adminstrators, we faced numerous challenges beginning in 1996 when we launched our online efforts at UMass Lowell. Which courses or programs to migrate, what faculty to involve, and which platform to use are just a few of the many complex decisions that institutions must confront in building online programs. To help others, we've created a rubric that covers five strategic areas of decision making:

• Selection of courses and programs
• Faculty development, support, and incentives
• Technology and infrastructure
• Redesign of student services
• Program and course evaluation

A set of four operating principles that evolved with the success of our program exist as important guides:

• Adhere to your campus mission
• Use traditional academic structures and faculty to accelerate the development of online education
• Start small, build incrementally, and think scalability
• Build learning communities that push the limits of new technology

Principles in Action

Consistent with the principles above, UMass Lowell's online education program started very small, with a handful of pioneering faculty. Like many public universities, we were trying to identify new markets that could bring needed revenues to the campus and expand access to our programs. Therefore, the online program was initiated through the Division of Continuing, Corporate and Distance Education (CCDE) to address those campus needs. As a self-supporting organization, CCDE was to identify strategies that would generate sufficient revenues to cover program development and delivery costs. Working through decisions by employing the principles outlined above, we were able to overcome the obstacles that often inhibit the growth of online education.

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The online program at UMass Lowell now offers six full degree programs and enrolls approximately 6,000 per year. It is one of the largest online programs in New England and is a major contributor to UMassOnline, the University of Massachusetts system-wide effort to provide online education. The program at Lowell is entirely self-supporting and returns significant revenues to the campus that seed continuous growth. Below, we examine some of our formative decisions in the five strategic areas, and consider the operating principles that guided our choices.

Selection of Courses and Programs

Because of the financial considerations mentioned above, we identified a process and set of criteria for selecting which programs to move online. First, the program had to have an established market. Second, the program had to have flexible requirements that would appeal to multiple audiences and be scalable. To address those criteria, we examined our potential markets and targeted adult learners who needed the flexibility and convenience of online education.

All of the courses we selected to migrate online had to fit into a certificate, and all the certificates had to fit into one of two undergraduate degrees designed for those seeking degree completion. Since we had a flourishing market in information technology, we focused our initial development there and gradually

built out offerings in liberal arts, health, education, and engineering. The strategy proved successful as evidenced by consistently high enrollments in the courses and programs. For several years, the program averaged 100 percent growth, and it now continues to grow at approximately 25 percent annually.

Traditional faculty inform online course design. To ensure its alignment with the university mission, we purposefully engaged traditional, tenured faculty in the design of the online program. Rather than ignore their questions, we used their concerns to guide the design of the program. For example, the faculty were concerned about losing interaction with their students and about the potential for lowered standards. To address those concerns, we designed the courses to enhance interaction and uphold quality. As a result, our online courses mirror the design and quality of our face-to-face courses. The courses run in a traditional 15-week semester and class size is limited to 30. Each week, course lecture notes are released and students move through the course as a cohort, learning from each other, guided by the instructor. Courses are delivered asynchronously, so students and faculty log onto the course at anytime, from anywhere, and participate and interact through discussion boards and e-mail.

While there are numerous alternatives such as self-paced and competency-based learning, our online course design is consistent with the academic structure of our campus. More importantly, the design enabled the faculty to build interaction into their online courses, a critical concern for quality education. In this format, faculty and students report at least as much, if not more, interaction in their online courses as in their face-to-face courses. In fact, the traditional faculty are now champions of the online program and often serve as mentors to their colleagues.

Faculty Development, Support, and Incentives
Teaching online requires faculty to transform their courses and related pedagogies. When we first began our faculty development efforts, we hosted several face-to-face workshops that consisted of approximately 9 hours of training. Consistent with the principle to start small, and to think scalability, we gradually grew this initiative into a comprehensive program that supports faculty through four phases of development.

The first phase provides a 4-week online workshop where faculty learn to teach online by being online students themselves. This online seminar features important strategies of online teaching as well as hands-on experience with course management systems. In the second phase, faculty begin development of their online course materials and migrate their syllabus, lectures, and other course materials to the course management system, assisted by development staff and a second 4-week online seminar. The third phase of development occurs

while the faculty teach their first course, and the fourth phase occurs as faculty redesign their courses to incorporate more sophisticated online strategies such as case studies and team projects.

A team of course developers and technical support staff work with the faculty throughout this process, assisting in course migration and materials development, ensuring each online course is complete before the start of each semester. With this model we can migrate approximately 40 new courses annually and support 250 course offerings efficiently and cost effectively. Our development team now offers a series of development modules for teaching online, on the Web, to our faculty as well as those from colleges and universities across the country (http://continuinged.uml.edu/online/institutes.htm).

A key component to our success in building the online program is a system of intrinsic and extrinsic rewards that faculty receive for their participation. A detailed intellectual property agreement as well as course development stipends provide the extrinsic protection and renumeration agreed to by the faculty. As important, an extensive range of professional development opportunities provide faculty with the intrinsic rewards they appreciate.

Technology and Infrastructure

Making informed technology choices is key to a successful online program. One of the most formidable decisions colleges face in the development of online programs is the selection of hardware and software for the delivery of their online program. The process can be intimidating, considering the many course management system (CMS) vendors, course publishers, and other companies, each claiming to offer the best solution for your campus. Our approach to selecting the appropriate hardware and software followed the principles outlined earlier in this article. The initial technology investment was relatively small, involving use of a Web server and list server already owned by the university. However, to expand the program beyond technology-savvy faculty and into more disciplines, we had to provide an easy-to-use system for both the development and teaching of online courses.

Consistent with the principles outlined above, we sought a vendor that would respect the experience that our faculty brought to the table to inform the development of new generations of the CMS product. The ideal course management system should facilitate interaction between students and faculty; provide for easy course development and management; and provide a robust, scalable system that supports 24-hour per day, 7-day per week service. The willingness of our vendor, IntraLearn, to work with us in order to improve the utility of the software for our program, has proven critical in supporting the growth of our online program.

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Selecting a Course Management System

UMass-Lowell's criteria for selection of a CMS included the following:

Installed on local equipment

Based on an industry-standard relational database

Allows access to any course or enrollment data through commercial, data query software

Supports integration with other campus systems through commercially available scripting software

Allows substitution of integrated components such as chat, discussion forums, and testing tools

Provides a forms-based interface for the development of course materials as well as instructor course management

Does not require specific software for student access or instructor course development

Supports the integration of various multimedia and plug-in software modules

Does not require a perpetual, per-seat license fee

Vendor agrees to meet with us twice a year to discuss upgrades and modifications to the system

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Redesign of Student Services

Before we launched our online program, students typically registered for courses by telephone or in person, and all administrative processes required an original, hard copy student signature. Course schedules, program descriptions, academic policies, and other program-related materials were printed and snail-mailed to

students. Very early in the process, it became clear that we had to redesign the culture of our student services division to support online students.

Rather than announcing and implementing a large-scale redesign effort, our initial redesign efforts simply focused on forms and information. We asked the question, "If I lived on the opposite side of the country, how would I apply to a degree program? Drop a course? Talk to an advisor?" This approach was practical, non-threatening, and allowed student service staff to help develop solutions to the challenges raised by having online students.

Moving beyond online forms and information, we also recognized the unique needs of online students. Participation in an online course requires that students have a minimal technical aptitude and sense of themselves as a learner. Technical staff partnered with student service staff to provide both face-to-face orientation sessions and online orientation programs that detailed both technical and pedagogical considerations for students taking online courses. Most recently, staff have developed an online assessment that allows students to complete a brief online quiz that examines their technical knowledge, learning style, and ability to manage time—all factors that appear to contribute to student success in online education.

Program and Course Evaluation

From the outset, we established clear benchmarks so that the administration and faculty could assess the viability of the program. First, we established the principle that faculty and student experiences should be rated equal or better than the on-campus experience. An online evaluation process was implemented that examined student perspectives regarding the quality of course materials, instruction, student services, and technical services.

The results of the student evaluations are reviewed at the course and program level in an effort to identify the strengths and weaknesses of the program. This annual open discussion with online faculty regarding the online students' experiences provides an opportunity to discuss strategies for improving the online program. Several changes implemented as a result of this survey process and discussion include the expansion of technical support hours, the option of using multiple discussion and chat tools by faculty, the development of online faculty training, and modification of the CMS.

In addition to examining student perceptions regarding the quality of our online program, we also examine course and program persistence rates each semester. Another important benchmark has been the percentage of full-time, tenured faculty who have supported the growth and scholarship of our online program. The faculty development programs described above have resulted in a steady

increase of the percentage of tenured faculty teaching in our online program, to 35 percent of all instructors.

While we have developed internal metrics for establishing the quality of our students' online learning experiences, colleges and universities must remain cognizant of regional and professional accreditation standards that provide external mechanisms for monitoring the quality of higher education. Accreditation standards for online education require campuses to provide the same levels of assurance currently required of on-campus programs, and we track our progress toward those standards accordingly.

Challenges for the Future

Enrollment trends point to the need for accelerated integration of online education; yet some colleges and many faculty have yet to engage in this important opportunity. To move forward, institutions must chart a strategy that will best suit their campus mission. One of the strengths of American higher education is its relentless pursuit of opportunities that will enhance the educational experiences of our students and faculty. To continue that pursuit requires that we take hold of this new frontier and drive the technology so that we maximize opportunities to improve teaching and learning.

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