The Road to Transformative Learning in Higher Education: A Three-Part Strategy
Online and blended learning may be mainstream in higher education, but colleges and universities still need a multi-pronged strategy to overcome common hurdles to success.

Colleges and universities are adopting transformational technologies to support online and blended learning with the goal of improving student outcomes. The maturity of these tools is convincing many higher education institutions that online learning isn’t just an attractive complement to traditional instruction — it’s often part of a core educational strategy that is fundamentally reshaping how they compete for students and achieve success.

Case in point: Educators at Broward College in Florida have been applying online learning and the progressive teaching models it supports for more than a decade, and no longer view it as ancillary to their core curricula. “Ten years ago it may have been nice for us to offer online learning options. Today, online learning has become a strategic part of what we do,” says David Shulman, associate vice president for the Virtual Campus and Instructional Technology. He adds that the innovative use of online learning technologies to provide high-quality, flexible degree and certificate programs at affordable rates is also a competitive differentiator for the college, which is one of about 132 higher education options in the region. “It has helped the Virtual Campus to continually grow our enrollments.”

Broward College isn’t alone. Recent studies show that 37 percent of post-secondary instructors have increased their use of online learning in the past two years, with higher education spending on online learning technologies surpassing $24.4 billion.

But what the statistics don’t show is how institutions are overcoming the challenges that can keep new technologies from achieving their full potential. Even long-term veterans of online learning acknowledge that campuses must navigate a host of stumbling blocks, including underperforming support systems and digital content that doesn’t meet the needs of today’s students.

What’s required is a three-part strategy that covers technology, curriculum and content planning, and professional development. This Center for Digital Education white paper explains how to begin this transformative process to bring a successful online learning environment to your campus.

Part 1: Technology
What does it take to succeed with online learning? At the most basic level, colleges and universities need a reliable, secure and high-performing IT infrastructure to support the effort. But at the heart of any online learning environment is modern tools and computing resources that are flexible enough to accommodate a wide variety of teaching styles, and scalable enough to serve hundreds or thousands of new users as online learning commitments grow.

Consider Cloud Computing
A robust online learning environment can be a daunting requirement for budget- and resource-strapped technology departments to manage. For an alternative to the traditional model of purchasing and maintaining an online learning environment or other technologies, colleges and universities can contract with third-party service providers for solutions delivered via secure Internet connections and hosted in the cloud. “We made the decision to outsource the hosting of our online learning services so we could be more nimble and respond more quickly to growth,” Shulman says. “We didn’t have people on staff or the interest to invest in this type of increasingly specialized, mission-critical hosting by on-site management.”

Cloud computing also accommodates the global students that campuses are educating within their online learning environments. Rather than forcing international students to
sign into local servers, where physical distance can result in slow performance, cloud-based content distribution networks can quickly deliver content that has been formatted for local standards, says Robert Saum, executive director of instructional resources at Florida’s Daytona State College.

**Evaluate Online Learning Solutions**

Cloud computing may mitigate some investment and maintenance headaches, but choosing the right solutions still requires careful evaluation. For example, campuses need to examine some key areas to assess how well a Software-as-a-Service (SaaS)-based online learning solution meets their needs.

**Collaboration.** Evaluate the communications and collaboration tools in a potential online learning solution. The solution should be able to tailor content and communications to meet the individual needs of students. The best applications offer embedded full-featured email, instant messaging and blogging capabilities for connecting faculty and students.

**Course building and instructional design.** To support digital content development, the solution should include course building and instructional design resources, as well as utilities for easily incorporating rich-media presentations and videos within courses — all with the ability to be customized to the unique needs of the institution, faculty and students.

**Online repository.** An online repository for learning materials is another important collaboration resource, says JoAnn Burkhart, associate dean of online learning at the Community College of Aurora in Colorado. Burkhart is working with two other community colleges to spearhead blended learning in the state. They are now creating a “Best of Blended Learning” course that highlights best practices. The repository will make the course and developmental tools available to all the schools. “We developed a template so no matter what material you’re looking for, you can search for it across all the colleges,” she explains. “Our videos didn’t used to be searchable, but we put the links to them in the repository and now they are. In the past, instructors may not even have known the videos existed.”

**Assessment and reporting.** Assessment and reporting capabilities are essential elements of an online learning environment. Standard reports should give instructors insights into overall class performance, as well as how actively students are participating in discussions, whether they are logging in regularly and completing online work, and which individual students are struggling with course materials and may need an intervention. The ability to intervene at the first sign of a student struggling is key to improving retention. For department heads and administrators, the reports should provide a holistic view of each course and how well learning objectives are being met so student outcomes are constantly being monitored.

**Security and compliance.** Ask online learning environment service providers to demonstrate the security and compliance controls in the solution. In addition to adhering to federal or state regulations, the provider should document its specific security policies, the types of technologies in use and the geographical location of its data centers where the institution’s information will be stored.

**Open standards.** Open standards are also important for online learning environments. In particular, support for the Sharable Content Object Reference Model (SCORM) and the IMS Global Learning Consortium’s Learning Tools Interoperability (LTI) protocols will enable campuses to import courses from other sources. The environment should also offer an extensive set of application programming interfaces (APIs) so campuses can enhance online environments by plugging in new modules that may have been developed internally or come from third-party vendors and connections to cloud solutions. Add-on applications exist for plagiarism detection, e-portfolios and other resources.

**Accessibility.** To address all students’ needs, institutions should make online learning accessible to students with disabilities. When possible, learning tools should include shortcuts, custom settings and other options so users can tailor the system. For guidelines, campuses can look to the World Wide Web Consortium’s Web Accessibility Initiative set of international standards, which include the Web Content Accessibility Guidelines 2.0 (WCAG 2.0), Authoring Tool Accessibility Guidelines 2.0 (ATAG 2.0) and Accessible Rich Internet Applications Suite (WAI-ARIA). In addition, they can seek out vendors that enhance accessibility by organizing
user groups of experts and students with disabilities. Together, vendors and user groups can develop strategies for new innovations and test prototype features.

**Mobility.** As campuses expand learning beyond traditional classrooms, it’s becoming imperative for online learning environments to support the growing numbers of tablets and smartphones used by on-the-go students and instructors. The best platforms support browser-based learning applications as well as downloadable mobile apps for specific mobile hardware and operating system combinations.

To make sure each of these individual pieces adds up to a successful whole, colleges and universities should ask online learning environment vendors to demo the applications at the campus. Invite representatives from various stakeholder groups, including IT, education departments, administrators and students to view the demos. These multiple perspectives can help ensure that an important detail isn’t overlooked that may result in future frustrations. “I’ve seen several cases where everything from a faculty perspective, for example, looked wonderful, but maybe from a systems administration perspective there were all kinds of support issues,” says Saum.

Prudent campuses will take due diligence a step further with a pilot that tests the online learning solution over a number of weeks or a semester.

**Part 2: Curriculum and Content**

With the right technical underpinnings in place, colleges and universities can create and enhance online learning content, and align it to educational goals and institutional outcomes.

**Involve All Stakeholders**

Long-time online learning practitioners advise campuses to take a team approach with many of the same stakeholders that helped evaluate the online learning environment. For example, some campuses assign faculty members to assist online instructors in developing course materials and assuring that the syllabus is up to date. Feedback from multiple sources also helps make sure courses are easy to navigate and that students clearly understand the objectives, assignments and grading systems. “We also make sure the courses have a strong element of the teacher’s presence so students are not taking just a correspondence course, but rather have an immersive, engaging learning experience,” Shulman says.

**Determine What Tools Work Best**

While technology can be a natural route to engaging today’s college students, even the most alluring tools, such as video, can be overused. Educators at Daytona State found this out when they first began producing videos of entire lectures. Few students sat through the full presentations. Now, instructors rely on “micro lectures,” short, 5-to-15-minute talks that focus on one key learning objective that may be explained with a demonstration or illustration that drives home the concept. "Start with
‘bottleneck’ concepts, the ones that are most difficult for students to grasp,” says Saum. “The advantage of videos is students both hear and see the information. Students also move at their own pace and can watch the videos again and again, if necessary.”

Campuses shouldn’t let the attractive potential of innovative online learning technologies lead them to gloss over some tough challenges to creating and delivering digital content. For example, creating online learning content can be demanding work. “For a long time many people thought that going online is cheap and easy, but that’s a huge misconception,” says Saum. He estimates that in a typical classroom, instructors may spend three to six hours preparing for a lecture. But video content — even micro lectures — may require 100 to 200 hours of development time. “It requires significant time commitments and investments in equipment,” he adds.

Adjust to Student Needs

Daytona State also discovered that while technology provides flexibility, some students still require a rigorous structure to their online courses. A few years ago, the college found that about 60 percent of the students who started a typical distance learning class would abandon it before completion. So it overhauled its distance learning strategy with a greater focus on community building and more frequent online meetings. One specific change was to institute eight-week courses, which meant that instead of scheduling online classes only once or twice a week, students would check in almost every day. That one change helped students retain more of what they were learning and significantly improved completion rates, says Saum.

Continue to Improve

Finally, online learning content requires continuous improvement. Broward College periodically reviews each online course to find areas where it can be expanded and improved. The newly acquired analytics platform in the online learning solution is being developed to help the college determine what content is working and what materials must be revised for better outcomes.

Part 3: Development and Training

The third key component for success is a combination of formal and informal professional development resources designed to keep educators — and students — on top of the latest technologies and techniques.

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Professional Development

As online learning expands across higher education, instructors can benefit from two types of professional support. The first focuses on how best to incorporate technology into classrooms and teaching strategies. Some professional development sessions may target instructors who are new to online learning by offering guidelines for creating successful online courses. Other workshops may hone in on areas of interest to all types of online learning programs, such as how to promote collaboration or strategies for using online instruction to free up class time for discussions and other face-to-face interactions. Professional mentoring is another aid — some campuses appoint a distance learning chair who organizes a group of e-mentors to lead professional development activities.

A second important developmental area for instructors is fundamental — how to gain personal proficiency in the latest technologies. Daytona State created an internal online learning academy with introductory courses that most faculty members are required to take. “Then there are additional courses that they can choose to get them acclimated to teaching in an online environment,” Saum explains.

Training for Students

Even today’s technology-savvy students may need their own set of developmental courses to help them succeed in online learning environments. “An online orientation is mandatory to make the student aware of what the individual class will cover and how to use the learning management system,” says Shulman. Broward College’s Virtual Campus also encourages instructors to assign students an introductory biography or a short quiz to help learners effectively use the online learning environment and communications tools. “These strategies allow instructors in the first few days of the course to track student activity both for attendance verification and to engage students in the ensuing class,” says Shulman.
Bringing it All Together for Transformative Learning

A solid technology infrastructure anchored by a modern online learning environment, engaging digital content and ongoing skills development combine to help higher education institutions overcome common roadblocks to successful online and blended learning environments. Best practices and words of advice from campuses already providing online and blended learning environments can help smooth implementation for institutions looking to transform learning on their own campuses. Even though the upfront and ongoing work can be intensive, online learning and blended learning environments have proven to have big pay-offs in higher education — offering a competitive differentiator for institutions, and even more importantly, an improved educational experience for students.

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—DAVID SHULMAN, ASSOCIATE VICE PRESIDENT FOR THE VIRTUAL CAMPUS AND INSTRUCTIONAL TECHNOLOGY, BROWARD COLLEGE, FLA.

Resources

The Sloan Consortium offers assessment tools, scorecards and seminars to help campuses assess their institutional readiness for online learning initiatives.
http://sloanconsortium.org/

Quality Matters is a peer review process for certifying the quality of online courses. It includes almost 50 standards for evaluating online and blended courses.
www.qmprogram.org/about

Desire2Learn is the industry leader in supporting next-generation learning environments and providing solutions to engage and inspire lifelong learners. Desire2Learn offers videos, white papers, webinars and more for schools looking to implement virtual learning environments.
www.desire2learn.com/resources/

The Center for Digital Education (CDE) is a national research and advisory institute specializing in K-12 and higher education technology trends, policy and funding. CDE recently produced a Special Report on The Blended and Virtual Learning Frontier.
www.centerdigitaled.com/reports/q3-2012/

Endnotes

1. All quotes from David Shulman from CDE interview, March 6, 2013
4. All quotes from Robert Saum from CDE interview, March 8, 2013
5. All quotes from JoAnn Burkhart from CDE interview, Feb. 28, 2013

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