UB
SPECIAL REPORT

ONLINE LEARNING

An administrator's guide to navigating
online program management

- OPM or DIY? Why some institutions are choosing to work with third-party online program managers

- The hidden economics of online programs

- Ensuring student success for online learners

- Navigating the cheating problem

- Course creation tech gear

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Welcome to UB's first special report, covering online learning

By Melissa Ezarik

Growth mode: That's the status of online learning at a great majority of colleges and universities, according to a UB survey. Nearly 90 percent of respondents expect online enrollment to grow at their institution in 2017. About seven in 10 are expanding online education programs this year, and nearly 6 in 10 plan to expand infrastructure. Only 3 percent anticipate pulling back on offerings.

Whether your institution is an online ed veteran or still dabbling in virtual learning—and whether your role is to create and manage online programs, or you just want to stay current on this topic—our special report e-book is here to help.

Inside, find action-oriented features and survey results related to key topics, including using third-party management firms and the hidden economics of online programs. You can explore the various ways online education administration is structured, how to handle faculty training, how to help online students succeed, and what to do about common challenges, such as cheating and accessibility. In addition, you'll find perspective from online education practitioners and experts on technology tools, the digital skills gap and more.

We hope this report serves as a valuable resource for your college or university.

Connectivism is key to networked learning

An online education pioneer recalls its past, predicts its future

By Tim Goral

In the evolution of online education, Stephen Downes has made a name for himself as a genuine trailblazer. Over the course of his career, he has developed and deployed a series of progressively more innovative technologies, many of which have become commonplace in education today. As a leading voice in online and networked learning, Downes has authored learning management and content syndication software. Currently a member of Canada's National Research Council, he publishes the highly popular OLDaily newsletter—short for Online Learning Daily—in which he chronicles and comments on developments in the field.

Q: Tell us about those early days—the beginnings of online learning in the 1990s.

A: My involvement in it goes back even further than that. The first actual experience of an online component to a course I ever took was in 1986 when I was studying for my master's at the **University of Calgary**. We used the conferencing system that the university had and it was brilliant. I loved it, but it was difficult—difficulty accompanied every step of the way because there was no real experience for this. We had to figure it out on our own.

Computer services handed me a 300 baud modem and a disk and said, "Use these." That was the extent of my orientation. I ultimately did figure out how to use the modem and set up what I called Athabaska BBS, with a K, to distinguish it from **Athabasca University**, where I was tutoring at the time. Then a bunch of us got into the real-time virtual world of what are called multiuser dungeons, or MUDs, and soon realized there could be an educational aspect to them. So we created the Painted Porch MAUD—Multiple Academic User Domain. We actually used it for some academic events.

> Difficulty accompanied every step of the way because there was no real experience for this. We had to figure it out on our own.

Q: You've done a lot of work with what you call e-learning 2.0, and the social aspect of learning. What do you mean by that?

A: E-learning 2.0 and Web 2.0 are the social internet and the idea of people becoming linked to each other. The first real instance of this that I saw was in instant messaging, and, in particular, ICQ. Blogs were starting up around that time, which allowed people to create content easily; and through them, people began to become connected with one another. Then came services like Twitter and Facebook, based on that idea of linking. It allowed people to work as a collective in ways that they hadn't.

Suddenly e-Learning is not simply about consumption of content on a website. You had a group of people working in a connected, interactive way. Each person producing their own content and interacting with others would result in emergent effects—that is to say, knowledge that arises from people cooperating in this way, rather than knowledge being transmitted from an authority to recipients.

E-learning 2.0 is as much a pedagogical change as it is a technological change.

Q: And that's what you call "connectivism"?

A: Yes. It's the idea that knowledge is the organization of connections in a network of interconnected entities, where a connection is a link such that a change of state in one entity can result in a change of state in another entity. I know I'm being a little prickly here, but there are reasons for all those specific wordings.

A group of people working in a network—or a group of neurons working in a network, or even a group of starlings working in a network—can produce knowledge that emerges from the structure of that network and is not transmitted by any individual member of that network. So learning, according to connectivism, is the creation and manipulation of that network structure.

The real innovation of MOOCs is that they're using server virtualization, so the course can expand as enrollment expands.

Q: You and George Siemens originated MOOCs. How did that come about?

A: We created the first MOOC in 2005. It was called "Connectivism and Connective Knowledge," and we were putting in practice what the theory said, because nobody understood

the theory. We decided to put an online course into practice where the design of the course was guided by the idea of connectivism.

We set up the course as a network. The mechanism of the course was not for the transmission of a received body of knowledge from authority to consumer, but rather to set up this network of interactions in an environment where we were all exposed to relevant experience, materials and so on, connecting with each other, communicating with each other. The "content" of the course would be the knowledge that emerged as a result of these interactions.

So you can see that's pretty different from a traditional course.

In 2011, when Norvig and Thrun came out with their Introduction to Artificial Intelligence course at Stanford, it was done in a traditional manner—there are course objectives, there's a body of content, they progress sequentially through that content. The innovations they introduce to the course are along the lines of video lectures and the use of applications to mark quizzes, so there's a degree of automation.

> MOOC enrollments in 2015 were greater than in all prior years combined. That does not sound like death to me.

But the real innovation of those MOOCs is that they're making use of server virtualization, so that the infrastructure supporting the course can expand as the enrollment expands. That's what allows them to get 150,000 registrations.

Q: Almost since they began, critics have been proclaiming the impending death of MOOCs.

A: Yeah, and the numbers don't support the claim in any case. Class Central (class-central.com) has been surveying MOOC enrollments for the last four years. In late 2015 and early 2016—when people were saying, "MOOCs are so over"—Class Central reported that MOOC enrollments in 2015 were greater than in all prior years combined. And the 2016 enrollments were twice that of 2015. That does not sound like death to me.

Q: So where do these stories originate?

A: Well, out of the **Stanford** MOOC came Coursera and Udacity, and then edX, Open University, FutureLearn and so on. Significantly, they had venture capital. This gave them an imperative to make money or fail, because

they're basically in the business of free courses.

Their first play—and I'm generalizing a bit—was that the data collected from attendees would be saleable, and that could be revenue. That turned out not to be the case, so they pivoted to corporate learning. That's not a bad idea, because there's a really good case for MOOCs in corporate learning. The problem is, they weren't going to realize that business case in one year, which is about how much time their VCs gave them.

So they pivoted again and started selling certification, and that did not go well. I just read a study of **Harvard** and **MIT** MOOCs. They had 800,000 enrollments each before the paid certifications, and there was a drop of about 25 percent each after. That looks like MOOCs on the decline, but really it means that monetization of MOOCs isn't succeeding the way the venture

capitalists had hoped, and that's a totally different story.

Q: What are you working on now?

A: What really interests me right now is virtualization and distributed networks—the idea of reclaiming the web, getting us out of the closed environments of traditional social networks and traditional university networks, and being able to work on the open network in a distributed and interactive manner. As an aside, Tim Berners Lee is working on the same thing, so I'm following interesting and experienced leadership here. The point is that the technology itself now does not need to reside in a particular location for it to be useful and functional. That's what virtualization gives us; that's what distributed computing gives us.

Ultimately, we're trying to personalize the online offering for any given individual. We have to get past this idea that everybody taking Philosophy has to take exactly the same thing and have exactly the same experience, which—when you think about it—is kind of a ridiculous concept.

> Technology itself now does not need to reside in a particular location for it to be useful and functional.

We're trying to create different experiences for different people, and from the interaction among those people, each with their own perspective, we get new knowledge as a result. You've got to be continually creating new knowledge to respond to the changes in the world. **UB**

From scattered to scale: How one large university manages 2TB of new lecture capture video every week

The University of Arizona uses versatile video platform Panopto to record, share and stream large amounts of video

More than a quarter million hours—that's how much time students at the University of Arizona collectively spent watching recorded lectures, flipped classroom presentations and other academic videos last year.

But it wasn't always this way. Just a short time ago, the University of Arizona was like many other institutions when it came to supporting lecture capture and academic video: Different departments experimenting with different solutions to support different objectives.

Recognizing the rising interest from faculty, as well as the potential value for students, Arizona's Office of the CIO sought to find a better solution for taking lecture recording campuswide. The team soon found Panopto—a flexible video platform that made it possible to record, stream and share video with ease, in a software-based solution that was far easier to manage and far more affordable than the old web of departmental deployments.

Building a true partnership

Panopto was easy to deploy across campus—the Panopto recorder could be quickly installed on virtually any computer, and Panopto's web-based video library could be accessed in any web browser. Faculty members were thrilled to find Panopto integrated seamlessly with the university's existing learning management system.

"One of the best things about Panopto has been their level of support," says Mark Felix, director of Instructional Support at the University of Arizona Office of Instruction and Assessment. "Panopto has been a nice fit on the product side, and an excellent partnership on the support side."

Along with assisting in the campuswide implementation, Panopto has worked closely with the institution's OIA and EIS teams to help the university continue to make the most of its video infrastructure and investment. When the UA team sought to optimize bandwidth

Panopto™

From scattered to scale– How one large university manages 2TB of new lecture capture video every week

The University of Arizona uses versatile video platform Panopto to record, share and stream large amounts of video

use by splitting its video storage—in the cloud for lower-priority files, and on local servers for more frequently accessed materials—the team really began to see what makes Panopto different.

"We'd expected the usual vendor response—'We'll make a feature request and talk about it for the next six months,'" recalls Felix. "But with Panopto, everything was doable. That same day they opened a ticket, jumped into our systems, and helped us line up our cloud accounts. It was so much more than we had expected."

Achieving buy-in through ease of use
As awareness was building, the Office of Instruction team pushed to ensure that the actual rollout of the new video platform would be as ubiquitous as the initial plan had committed.

"We knew it had to be easy," said Felix. "We wanted to be able to say: Go to this website, download the software, and it will work. And that's

> **"Panopto has been a nice fit on the product side, and an excellent partnership on the support side."**

what Panopto does for us. This lets us quickly move to conversations around how we can creatively use this tool for improving teaching and learning."

With Panopto providing a solid foundation in lecture capture and video content management, today the University of Arizona is out at the forefront, offering new opportunities to better engage students and raising the university's profile as a leader in blended and online learning.

There's more to the story—to read how Arizona has created its classroom video culture, visit www.panopto.com/arizona.

View, comment, share this story online at http://UBmag.me/pto

Panopto™

Worse than ever?

A strong program does more than just replicate traditional instruction

By Gary Stager

Technology is never neutral and always impacts behavior. All technologies have affordances and constraints; benefits and consequences. Understanding what you hope to accomplish is an essential starting point for charting your online agenda.

Too many of the products and services offered as online learning are really online teaching systems. Significant learning is neither assured nor likely. In many cases, online "learning" products don't teach, so much as they test prior knowledge and then offer a new quiz question based on how well you performed on the last. Other products are "shovelware" —

> When considering online learning, are we opening a window to the future or filling a hole?

lectures or print materials uploaded to a server to be consumed by students.

When considering online learning, educators have a decision to make: Are we opening a window to the future or filling a hole?

In other words, are we looking online to create new opportunities for students? Are we trying to solve systemic problems such as inadequate funding, teacher shortages or student boredom?

Do these scenarios sound familiar:
- Can't afford to offer German II? Find an online course.
- Students misbehave in class? Enroll them in an online academy or credit-recovery scheme.
- Parents declare their daughter to be gifted and talented? Put her in an online course.
- Professional development is difficult to arrange? Have your teachers complete an online program, even if it's as inspiring as traffic school.

It is possible, albeit rare, to use the affordances of online education to enrich the educational process. When my colleagues and I created one of the

world's first online master's degree programs for educators at Pepperdine University, we did so to achieve the following goals:

Model constructivism, project-based learning and other progressive educational practices
Students worked on projects alone and collaboratively in a setting where their thinking—and the artifacts resulting from their efforts—were visible to a supportive community that provided continuous feedback without the stress associated with an emphasis on grades or pleasing the teacher.

Make the educational experience more social and intimate
When a cadre of students learned collaboratively for an entire year, they really developed a community of practice that nurtured the entire class. The lines between teacher and learner are blurred in pursuit of shared goals and expectations.

> Certain learners and teachers are better suited to synchronous activities online, while others benefit from being able to engage at their convenience.

Assume that all of the students and faculty want to be there
When you start from the assumption that students and teachers want to spend time together learning, coercion is unnecessary and students will exceed traditional standards routinely.

Learning is 24/7 and anytime, anyplace
Rather than wait a day or a week before seeing the teacher, students are an email or posting away. More importantly, the students' dependency on the centrality of the teacher as dispenser of wisdom and judge of performance gives way to the feedback, questions and suggestions of peers.

Faculty will spend more time working with students and team-teaching when they can do so in their pajamas
Breaking down the geographic barriers associated with teaching and commuting, while allowing for faculty flexibility, makes teachers more effective and accessible.

There needs to be a mix of synchronous and asynchronous communication
Certain tasks—and certain learners and teachers—are better suited to synchronous activities online, while others benefit from being able to engage at their convenience. A mixture of these two modes is imperative.

Frequency and volume simulate intimacy
Since learning is social, online learning needs to include constant communication between members of the learning community.

Meeting face-to-face two or three times is beneficial

If possible, face-to-face encounters help establish community, celebrate accomplishments, and elevate the exhibition of major pieces of work.

It is worth noting that Pepperdine's Online Master of Arts in Educational Technology program (now Master of Arts in Learning Technology) has been running strong—with very few structural modifications—for close to 20 years, while other K12 and higher education programs seem to be heading in exactly the opposite direction.

Here are a few more things to consider when thinking about online learning.

Nothing good in education is "massive."

MOOCs have failed to retain students or produce more than a minuscule completion rate for fairly obvious reasons. Engagement is built on relationships.

Any teacher who can be replaced by a computer probably should be.

It is unlikely that an algorithm or YouTube video will solve persistent educational challenges that are difficult for even skilled educators to address.

Ask yourself, "What is being added?"

Online programs should add value and enrich the educational experience.

First they came for the teachers

There are powerful forces interested in replacing teachers with YouTube videos. Can school administrators be far behind? **UB**

Gary Stager, an internationally recognized educator, speaker and consultant, is the executive director of Constructing Modern Knowledge. He may be reached at stager.org or constructingmodernknowledge.com.

What they say about online learning

"The online learning community is not out to 'disrupt' higher education. We are here to improve higher education."

—Joshua Kim, director of Digital Learning Initiatives, Dartmouth Center for the Advancement of Learning

"I liken us to a particle-accelerator for learning; we gather all this data for learning, and by analyzing that data we learn about learning."

—Anant Agarwal, president, edX, on how the e-learning platform provides valuable information to educators

"Part of the stigma [relating to online courses] is due to the lack of technology in the early years of the 2000s."

—John Cotton, MOOC instructor and manager of staff development, University of Pennsylvania's English Language Programs

WHEN to TURN to OPMs

By Kylie Lacey

Best practices for online program development and management

DIY

OPM

Institutions planning to launch online courses may need support in finding the right strategies to establish and sustain an effective program.

"Most are unable create a cohesive online program on their own," says Phil Hill, an educational technology consultant and industry analyst. "There's a tradition of academic freedom, and not a lot of tight coordination in how traditional courses are run and how students are recruited for those courses."

By enlisting a third-party provider to develop and manage their online programs, institutions can benefit from enrollment expertise and experience in operational best practices. "These companies know how to market to the types of nontraditional students who are likely to succeed in an online learning program," says Hill.

There are two main approaches to online program management for colleges in need of a provider—one without an upfront investment and one fee-for-service.

WHEN to TURN to OPMs

Option 1:

Upfront investment—eliminated

In the traditional revenue-share arrangement offered by the majority of providers, the vendor fronts most or all of the capital necessary to get the program started. In return, the company recoups that investment (and then some) by taking a 40 to 60 percent cut of the revenue the institution earns from its online program.

Leaders at **Bradley University** in Illinois selected that option for creating its online nursing programs, which launched in August 2015 after two years of development.

"We own our academic intellectual property and were also responsible for accreditation and state approval," says Joan Sattler, dean of education and health sciences. "We just wanted to work with a partner on the things we didn't feel like we could do on our own."

An instructional designer from the online program manager, or OPM, works with the university's faculty one-on-one to help design the online courses. The vendor also handles 24/7 helpdesk support for students.

Fall 2016 online program enrollment was 425 online students, who pay $830 to $850 per credit, the same rate as on-campus students. An additional online program, in counseling, launched January 2016 with help from the same provider.

Access to technological innovations is another perk of the arrangement.

"They have partnerships that allow them to do research in augmented reality and artificial intelligence," says Sattler. "It is very exciting for our faculty and students to have access to these opportunities that they would not have without our partnership."

Option 2:

Fee-for-service model

For institutions that have the capital required to begin an online program, the fee-for-service model has become available from a handful of providers. The institution simply pays a fee to an

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outside vendor in exchange for getting the program off the ground and the institution keeps all the revenue.

Schreiner University in Texas opted for this type of arrangement by obtaining a loan in summer 2014.

"For a place like Schreiner that operates on a tight budget, it was a real question for us to figure out how to fund the start-up costs," says President Charlie McCormick, who was formerly provost and VP of academic affairs. "But we knew the payoff would be great if we were successful."

A friend of the university offered a $500,000 loan with the stipulation

WHEN to TURN to OPMs

The DIY approach to online program management

Thanks to a grant from the Alfred P. Sloan Foundation, the **University of Illinois at Springfield** started offering online instruction in 1998. Now, the two dozen degree programs grant 50,000 credit hours every year, or more than 40 percent of the institution's total credits given.

And all programs were developed in-house.

"I am a strong believer in investing in instructional designers, faculty developers and accessibility specialists for the institution," says Ray Schroeder, associate vice chancellor for online learning. "That way, they can work on other projects for the institution besides just the online programs."

While the base credit fee is close to the university's in-state tuition rate, all online students also pay a $25-per-credit-hour online course fee. The fee funds instructional designers, the online LMS and specialized online learning software. Some of the money also goes to marketing and the departments that generated the courses.

Until three years ago, there was no marketing budget for the online program,

says Schroeder. Yet, the program saw a 3 percent increase in enrollment growth year over year. The newly implemented marketing budget allows for the production of SEO-rich web pages and geo-targeting of LinkedIn and Facebook users.

Among the reasons the online courses have attained a nearly 85 percent retention rate are program coordinators, says Schroeder. These employees, who work on campus, connect online students with services at the physical university. If, for instance, a student needs to speak to the registrar, the program coordinator can set up a phone call and remain on the line to ensure the issue is resolved.

A program coordinator can also reach out to a student if a faculty member expresses concern about missed homework assignments.

Students are only admitted into undergraduate online programs only if they have completed at least 30 credit hours at another institution. "We want to know our students can successfully handle college courses," Schroeder says.

that if it was paid back in advance of the end of the three-year loan term, he would gift the institution $100,000. The loan allowed Schreiner to contract with a fee-for-service provider.

Course designers work with faculty to create effective online courses, keeping in mind the unique demands of online instruction, including creating engaging presentations.

It is OK to be nervous about those high start-up costs, but they shouldn't be a total deterrent, says McCormick.

Marketing Schreiner's online programs to prospective students is big piece of the service provided. That involves, for one, helping campus officials prioritize digital marketing efforts, says McCormick. "They also recommended we hire a field recruiter, which has been very successful."

WHEN to TURN to OPMs

The provider's course designers work with faculty to create effective online courses, keeping in mind the unique demands of online instruction, including delivering timely feedback and creating engaging presentations.

Faculty also learn about condensing instruction. Schreiner's typical semester is 15 weeks, but the online programs run only seven.

In fall 2016, 1,308 online students enrolled in these programs, paying a lower per-credit rate than traditional students.

"We wanted to make the program as affordable as possible," says McCormick, adding that online students are frequently Pell Grant eligible and the first in their families to attend college.

The fees Schreiner pays to the OPM represent an investment in the university's future, McCormick says. "Instead of paying someone to do something for us, we are paying to train our faculty and staff to deliver online course content going forward." **UB**

Kylie Lacey is UB's former associate editor.

To outsource or not?

UB readers with online programs on the use of third-party OPMs

Does your college currently outsource its online program management?

15% Yes
85% No

Why outsourcing was the right choice for institutions that do it:

56% Needed outside expertise

33% Saw it as a favorable financial model

11% Were impressed with outsourced results at peer institutions

Outsourcing insight:

One administrator surveyed noted having different strategies for different programs, with some programs outsourcing all aspects of management, including course development, and others outsourcing only for recruitment/marketing and admissions processing.

Why outsourcing was NOT the right choice for institutions that handle in-house:

73% Desire to maintain internal control over the process

67% Feeling that there was adequate internal expertise

25% Outsourcing seen as too expensive

Outsourcing insight:

Some administrators surveyed said they had previously used a third-party provider and were unhappy with the partnership; others said their programs were started before such providers were available.

Source: UB survey with 164 respondents, who could select all answers that apply; percentages have been rounded

An Insider's View of Online Proctoring

Excerpts of an interview with David Smetters, CEO of Respondus

Online proctoring has taken off over the last 5 years. What are the main issues it attempts to solve?

It's really three things. First, and foremost, it's trying to prevent students from cheating during an assessment. Second, it's about protecting the exam content, so students can't copy and share exam questions with others. And third, it helps educators get a true snapshot of where students are in their learning.

What percentage of students cheat during online exams?

The research varies on this point because there are different factors that contribute to cheating. For example, a student is more likely to cheat as the importance of the exam increases. And they are less likely to cheat on lower stake exams. Social factors also contribute to cheating, such as whether a student is aware that other students in the class are cheating and getting away with it… But broadly speaking, it's estimated that about half of students will attempt to cheat during online assessments if there's no proctoring or similar safeguard in place.

What percentage of students attempt to cheat when the online exam is being proctored?

Again, various things affect this, but most estimates put it in the 3 to 5 percent range.

That's a significant difference, dropping from 50% to 5%…

It really is. And it speaks to the deterrent effect that proctoring provides. It doesn't matter if the student is proctored in a classroom or online, the result is about the same. We consistently hear that when an online exam is administered without any type of proctoring, the average class score is about 10-15 percentage points higher than when a proctoring component is added.… More importantly, the scores for online exams that have proctoring are similar to the scores for exams taken in a classroom. That's what accrediting agencies want to see, and administrators are starting to understand that.

Are online proctoring services needed when exams are taken on campus?

At Respondus, we divide online testing into

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two segments: online exams that are delivered in proctored environments such as testing centers and classrooms, and, secondly, online exams taken in non-proctored environments, such as from a student's home. For proctored environments we offer LockDown Browser, which locks down the computer or device that a student uses to take an exam. Students cannot go to a different URL, access other applications, print, copy text, open a new tab in the browser to search for answers, and so on.

And for exams delivered in non-proctored environments, we offer Respondus Monitor. Respondus Monitor uses the LockDown Browser technology as a starting point, but additionally has students record themselves with a webcam during the exam. The recordings are then available to the instructor, along with the automated flagging of events and other data.

So Respondus Monitor is entirely automated?

Right. It integrates seamlessly with the LMS's assessment engine. If the exam settings require students to use Respondus Monitor, it guides them through the process of using the webcam. And for the instructors, once the exam session is complete, everything is available to them from within the LMS -- the videos, the flagging, information about the exam session, all of that.

This differs from other online proctoring services where an employee is watching the student with a webcam during the exam. Right?

Yes, that's a different business model. The live proctoring services use humans to do the work, whereas we automate everything with technology. It's like travel agents versus Expedia. They each have their place.

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> " *It's kind of crazy when you do the math. Automated proctoring can be 50 times less expensive than live proctoring.*

I assume there's a price difference between live proctoring and automated proctoring.

Yes. Live proctoring generally runs $20-35 per exam. It doesn't scale from a cost standpoint, which is why you don't see wide adoption of this model across a campus. It's usually a handful of instructors or courses at an institution that use it.

How is your automated proctoring system priced?

Respondus Monitor is roughly $4 per user for the first 1000 seats, then $2 per seat thereafter. A seat is defined as one student per course. There are no per exam fees, which means that the cost is the same if the instructor uses it three times during the course or 15 times…. The average instructor uses Respondus Monitor about 6.5 times per course, so if you calculate it on a per exam basis, it works out to about 30 cents an exam.

That's more of a price difference than I would have guessed. So 30 cents [per exam] for a fully automated proctoring solution versus $25 for live proctoring?

Yeah, it's kind of crazy when you do the math. Automated proctoring can be 50 times less expensive than live proctoring. And as I mentioned earlier, any good proctoring system reduces attempted cheating to about the 3 to 5% range. So the institution needs to decide what it's willing to pay to reduce that rate to, say, 2% or 1%. For some situations, it may be worth 50 times the cost. But for the large majority of higher education exams, it's generally not . . . .

Read the full interview at **www.respondus.com/ub-proctoring**

In not-so-plain SIGHT

By Ray Bendici

Hidden costs and issues in setting up an online learning program

Developing an online program—just like building a bricks-and-mortar school—is fraught with expenses and issues that may become apparent only when the actual construction process begins.

"You have to consider the hidden costs, such as student support services, that touch the life of a learner as they spend time at an institution," says Karen Pedersen, chief knowledge officer of the Online Learning Consortium, a nonprofit focused on supporting distance learning in higher education.

Determining the primary reasons an institution is launching an online program—be it to address space issues on campus or to attract more students—can help inform a program's scope and costs.

The consortium offers a free scorecard for assessing administration of an online program. It provides guidance on building a quality learning experience through institutional and technological support, course development, instructional design, faculty training, student engagement and program evaluation.

Here are six big considerations.

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In not-so-plain SIGHT

1. Ancillary support staff

Registration, counseling services, tutoring, disability resources, financial aid—any office positioned to support online students may need to be available beyond the 8-to-5 workday, says Pedersen of the Online Learning Consortium. Administrators must determine such program parameters prior to operating and then staff accordingly.

Gary Grudnitski, director of **San Diego State University**'s undergraduate programs, is tasked with developing a fully online undergraduate business administration degree. One challenge: Set up an online admissions staff with a limited budget. The solution: Half-time personnel who work within the established on-campus admissions office, but divide time between both programs. Salary and benefits are divided evenly between both budgets, easing the impact a bit.

Institutional leaders also must decide whether to hire specially trained online instructors or train existing faculty, and if those instructors will be union, full-time or eligible for tenure and incentives.

2. Class and term size

The most successful online courses generally have 20 students, according to *U.S. News and World Report*. But there's no single right way of determining the best class size.

At **McKendree University** in Illinois, which has been offering online programs since 2004, classes have been capped at 20. This is comparable to its on-campus classes, where the student-to-faculty ratio is 14-to-1. "We wanted to make sure that even with our online classes, the faculty member wasn't overwhelmed in trying to manage a classroom," says Melissa Meeker, assistant dean of student services for online and external programs.

San Diego State's new program is also modeled from the on-campus experience, where capacity is, in part, determined by out-of-class time demands on faculty, such as office hours and grading, Grudnitski, says. Lecture hall courses, when converted online, may be larger, say 50 students, while classes requiring more writing—and more instructor time—will be smaller, perhaps 25.

The university uses a 16-week trimester system for its online program. Courses last eight weeks to offer more flexibility to working professionals. Instead of four courses per semester, a student can take two sets of eight-week sessions that they can complete at their own pace.
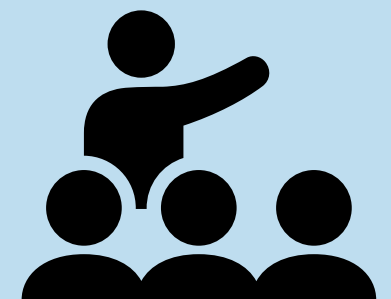
3. Accreditation

If a new online program marks a substantive change at an institution, then administrators must plan on seeking accreditation. And as with on-campus programs, there's a timeline for approval.

For example, the Distance Education Accrediting Commission requires institutions first to have a staff member qualify as a compliance officer before submitting a self-evaluation report and application for accreditation. The organization's accrediting commission only meets in January and June, so prospective applicants are encouraged to start the process a year ahead. The entire process generally takes 18 to 24 months.

Institutions wanting to offer classes to out-of-state students must be authorized in every state in which it plans to operate. Many schools dedicate at least one staff member to dealing with state authorization and licensing for more highly regulated programs, such as nursing.

McKendree started off having each of its individual online programs approved with the Higher Learning Commission. Ultimately, says Meeker, with so many online programs, it was easier just to apply through the commission to offer any of the approved programs in an online format. Many institutions now offer their online programs up for review when getting full institutional accreditation.
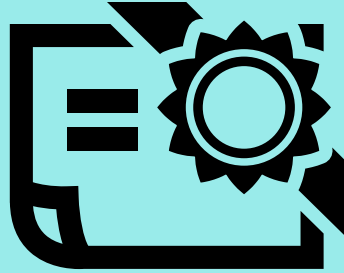
4. Marketing and student geography

The majority of students interested online learning seek programs within a 100-mile radius of where they live. They're looking for institutions close enough that they can access on-campus resources and services, says Elizabeth Ciabocchi, vice provost for digital learning at **St. John's University** in Queens, New York, which has run its own online programs since the mid-1990s. Online demographics there mirror national trends, with 40 percent coming from New York City and 32 percent from New York state.

School reputation and brand recognition are also part of decision-making process for prospective students. "We're competing for students locally, regionally and nationally," says Ciabocchi.

McKendree's online marketing office evolved separately from the rest of the university because the focus is on a different audience. "It's not like high school recruiting," says Meeker. "It's trying to find that adult learner who is ready to expand their education for job advancement."

Many institutions also see on-campus students enroll in online courses, so that audience needs to be considered in its efforts. In fall 2015, St. John's had 4,000 online course registrants from its on-campus undergraduate population (nearly 25 percent of the undergraduate total) and 1,400 from its graduate-level students.

In not-so-plain SIGHT

5. Platform integration and security concerns

There's no best way to integrate a new online learning management system and student information system. Institutions often rely on existing partners or in-house IT departments to facilitate the process.

Security and cheating are always concerns with distance learning. An LMS will include login authentication and password protection, but many institutions go beyond basic protocol. St. John's, for instance, trains faculty to use antiplagiarism software and create tests that are harder to cheat on. The university also encourages instructors to give writing assignments that will familiarize them with each student's style.

When it comes to exams, many institutions employ customized lockdown browsers and live video monitoring to ensure that the actual student is taking a test.

McKendree outsources test security, including browser and video monitoring. The annual contract—based on student headcount and including a fixed number of online exams per year—costs about $6,000.

6. Internships and more

Simply put, an online program has to consider every issue and cost an on-campus program does, except possibly parking.

For example, internships—a critical, hands-on component of many degrees—are increasingly being adapted to distance-learning formats. Much like telecommuting, virtual internships allow students to use Skype, GoToMeeting, instant messaging or other tools to participate in professional environments without actually being there.

Some schools only require an internship when it's a key part of the corresponding on-campus program, such as supervised student teaching for teacher certification.

San Diego State solved the problem of creating ID cards for online students. On campus, a student goes to security with a driver's license and gets a picture taken for an ID. Online student IDs are generated via a video-calling platform; students show their license by appearing on screen to replicate the in-person system.
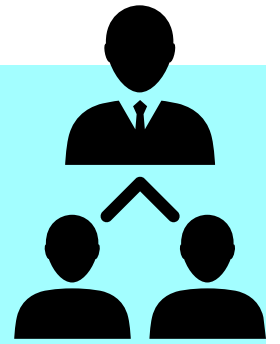
Establishing policies around intellectual property, cyberbullying, plagiarism and other questions regarding students working in a constantly evolving online world is also key. And as online education evolves, needs continue to change.

"Competency-based education, digital courseware, next-generation learning solutions—institutions have to be ready for what's coming down the road in terms of learning sciences," says Pedersen. "A lot that's happening is really exciting, but as an administrator, it's understanding what I need to have in view for my budget for 2018 or 2019, and where things may be going, and planning for that." **UB**

Ray Bendici is special projects editor of UB.

Answering common concerns about online learning

By Bill Pike

Faculty wonder about quality, cheating and effective communication

When I began teaching thirty-odd years ago, classroom technology consisted of ditto machines and opaque projectors. Over time, technology in my classrooms evolved to interactive whiteboards and smart carts. In the college courses I teach today, "classroom technology" is no longer a relevant term because my classes are completely online.

"Online learning" is actually an umbrella term that encompasses all sorts of methods and approaches. Generally speaking, these methods involve a computer and the internet. However, they all vary in theory and practice. Briefly, there exists:

> Early on in the wave of online learning, stories would circulate about how to get a degree online with minimal effort and a lack of responsible academic oversight.

asynchronous learning; synchronous learning; blended learning; computer-based training; distance education; video conferencing; virtual classrooms; webinars; and web-based training.

The variety of options naturally gives rise to numerous questions and comments; following are some often-heard concerns from faculty.

Are online classes "legitimate"?
Early on in the wave of online learning, stories would circulate about how to get a degree online with minimal effort and a lack of responsible academic oversight. But as online classes began to proliferate, colleges and universities held the curricula of their online classes to the strict standards of their individual institutions.

Today, online learning at most colleges and universities is considered as legitimate as any other class.

Are online classes more work?
For the student, it depends on how each professor structures the class.

Assuming that a professor's course work for a traditional class is the same as for its online cousin (novels read, papers assigned, etc.), online students may have to spend more time navigating the class webpage, downloading materials, uploading assignments, participating in online discussions and taking online tests. Some of my students have told me that taking an online class is more time-consuming than taking a traditional class.

For the professor, constructing a new online class is incredibly labor intensive. You must take all of the course material and transfer it to an online system.

Tests must be constructed. Dropboxes for assignments must be developed. Discussion forums must be created. Supplemental materials must be uploaded.

If assignments are time sensitive, the instructor must set dates and times for students to open and close assignments. Most learning management systems have tools to help with all these tasks, but it still requires many hours to develop. Some schools require instructors to be trained by IT personnel before teaching an online course.

> Some schools guarantee that instructors will teach their newly developed class for two consecutive semesters. Online class assignments have become quite competitive at many schools.

Of course, once a professor has successfully constructed a course, it can be tweaked and adjusted for use in future semesters. However, if the course contains time-sensitive assignments, the arduous task of changing dates and times must be repeated each semester.

Some schools guarantee that instructors will teach their newly developed class for two consecutive semesters. This protects all of their hard work. But after two semesters that class could be up for grabs. Online class assignments have become quite competitive at many schools.

What about cheating?
There is the opportunity to cheat in every class, but logically, it would seem that if a student were working independently, at home, without supervision, the opportunity to cheat in an online class would be greater.

Again, it all depends on how the professor structures the class. If objective tests are part of the assessment process, certain adjustments—time limits, jumbled questions, the types of questions you construct—can make cheating more difficult. Essay questions should require students to analyze specific, real-time

information that was presented in class.

Designing assessments based on class participation also makes it harder for students to get someone else to do their work. Keep in mind that many students who enroll in an online class, particularly at community colleges, don't know each other and will probably never meet—meaning they won't share answers.

> Some students feels safer in the digital anonymity of an online class and may even participate far more than if they were in a traditional classroom.

Don't you miss the traditional classroom experience? There are many advantages to the social interaction that takes place in a traditional classroom. Questions, discussions, clarifications and extra help can all be immediately addressed by the instructor. For students who are struggling with the material or who may be less self-motivated, a traditional classroom remains the best option.

However counterintuitive it may seem, there are many ways for social interaction to thrive in an online setting. Discussion forums, if used effectively by the instructor, are a great way to encourage conversations among students. Some students feel safer in the digital anonymity of an online class and may even participate far more than they would in a traditional classroom.

If only for economic reasons (both on the part of the student and the university), online classes are going to continue to flourish. If properly prepared, instructors and students alike should enjoy limitless imaginative and challenging online educational experiences. **UB**

Bill Pike has been an assistant adjunct instructor of English and humanities at Suffolk County Community College on Long Island for 17 years. He taught his first online course there in 2012.

What they say about online learning

"It's time we stop asking if online education will happen; it has happened."

—*Scott DeRue, dean, University of Michigan's Ross School of Business*

"With the uncertainty surrounding U.S.-global relations, we'll see an increased use of technology to connect with international businesses and academic partners to work on global projects."

—*Idalene Kesner, dean of the Kelley School of Business at Indiana University*

"Providing access to the internet and courseware is not enough. People need to feel welcome in online-learning environments to reach their potential."

—*René Kizilcec, lead author of Stanford University's "Closing global achievement gaps in MOOCs" study*

Detecting unoriginal student work with insightful software

Through Turnitin Feedback Studio, a Texas community college solves the challenge of detecting plagiarism and strengthens dialogue between stakeholders

Over ten years ago, members of the humanities division at Blinn College, a two-year community college with four campuses and 18,000 students in central Texas, had been long suspecting students were either not submitting original copy or were working with peers on projects when collaboration wasn't allowed.

Teachers had performed Google searches whenever unoriginality was suspected but knew some plagiarized work was slipping through the cracks, says Audrey Wick, an English professor at Blinn.

"That feeling instructors get that tells us if a paper isn't in a student's voice was our only barometer for addressing the problem," Wick says.

Blinn's humanities division began researching digital platforms that could effectively identify unoriginal work and adopted Turnitin, an online service that checks and prevents plagiarism. The program was chosen because it encourages best practices for using and citing written material.

Eye-opening software

When presented with Turnitin as a prospective solution, the school's dean of academic technology selected various instructors, including Wick, to use the online system for a trial run.

The group discovered multiple instances of plagiarism during the testing period, including examples that they might not have suspected were unoriginal. "We saw that it was really an issue," says Wick.

Adopting Turnitin wasn't difficult for students or instructors, she says, because it didn't require either group to add extra steps to their routine.

Unexpected benefits

Today, Turnitin has evolved into Turnitin Feedback Studio offering more than the plagiarism checks that instructors at Blinn fully utilize.

Administrators and directors love the program because they can easily interpret Turnitin Feedback Studio's reports if they have questions about a student's work, says Wick.

View, comment, share this story online at http://UBmag.me/trn

turnitin®

Detecting unoriginal student work with insightful software

Through Turnitin Feedback Studio, a Texas community college solves the challenge of detecting plagiarism and strengthens dialogue between stakeholders

Turnitin also inadvertently addressed one of the school's previous challenges: retaining student writing. With an online dropbox, Turnitin allows instructors to compare papers throughout the semester, Wick says.

Students benefit from Turnitin Feedback Studio as well, she says, because the assignments are digitized, requiring no printing.

Turnitin Feedback Studio encourages peer review exercises between students as well, another surprising factor Wick didn't anticipate. "My students see it as fun," she says. "They get to play the role of instructor for a little bit."

Peer review also makes her students better writers, Wick believes. "My students see the value of looking at other people's work and commenting on it," she says.

Providing professors with opportunities to address plagiarism directly with students is yet another advantage.

"It allows me to have real conversations with students about the

> **"Administrators and directors love the program because they can easily interpret Turnitin's reports if they have questions about a student's work."**

process of academic research using concrete evidence," says Wick.

Now Blinn College has a full-site license for Turnitin Feedback Studio, providing every instructor with full access to the online system. Training on how to use Turnitin Feedback Studio is provided at the community college. Wick also leads workshops. She and other teachers disseminate information about any Turnitin updates in their department.

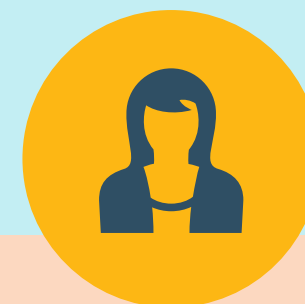"Turnitin absolutely solved the problem of discerning what wasn't original student work and so much more," Wick says.

For more information, visit www.turnitin.com

turnitin®

Who's in charge of online?

Organizational structures for online programs are as varied as program offerings

By Melissa Ezarik
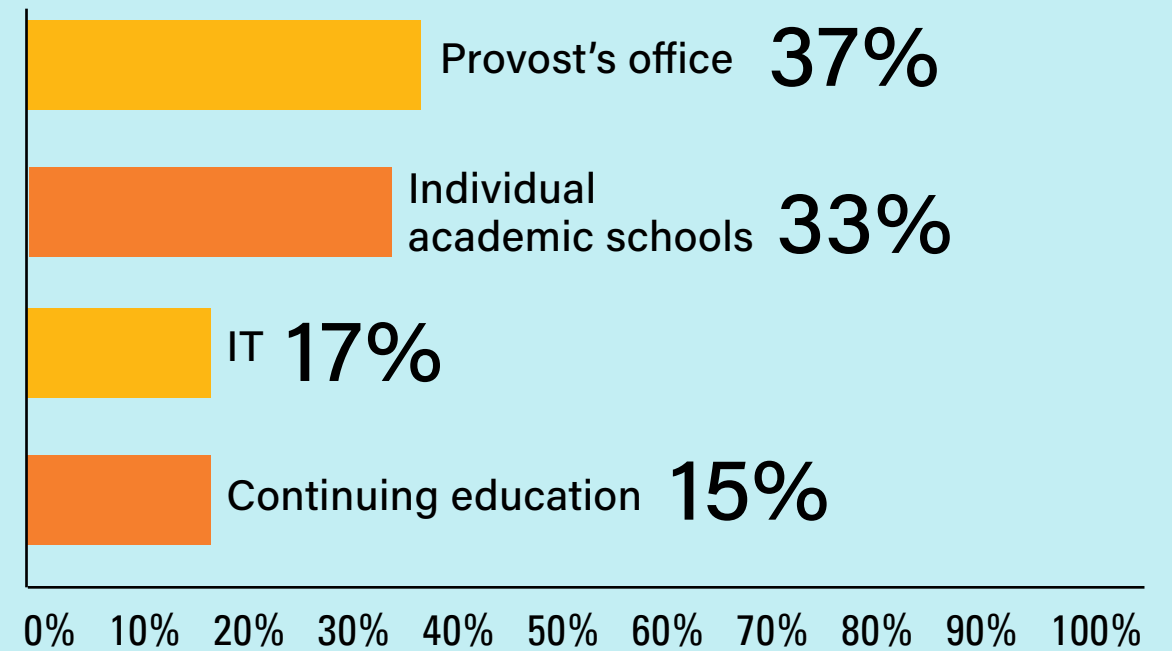
Who's in charge of online?

Provosts or individual academic departments are most involved in online program administration, accounting for 70 percent of campuses in a UB survey. Many online programs have their roots in continuing ed, however.

In the beginning, individual online courses were added to supplement or replace evening classes offered through continuing ed, says Ray Schroeder, director of the Center for Online Leadership at UPCEA, an association for professional, continuing and online education that serves more than 400 institutions. Strong continuing ed programs—such as those at Northwestern and Brown universities—evolved into schools for professional studies and then grew online offerings under that umbrella, Schroeder says. Other institutions developed a new, separate structure, such as Penn State World Campus. And many universities newer to the field now look at centralizing their online education programs through the provost's office.

Faculty may propel the virtual content decisions, as is the case at **University of Illinois at Springfield**, where Schroeder is associate vice chancellor of online learning. "They decide they want to do online, and then it goes to the college, faculty center, provost, chancellor and finally the board of trustees," he says. "Then the course or program is owned by that department and becomes just part of their delivery of the curriculum."

In another common scenario, a president or chancellor asks the provost to make a match between market needs

What department on your campus is most involved in online program administration?

Provost's office **37%**

Individual academic schools **33%**

IT **17%**

Continuing education **15%**

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Source: UB survey with 164 respondents; percentages have been rounded

DID YOU KNOW?

UPCEA's Hallmarks of Excellence in Online Leadership offer a detailed look at seven facets of leadership and organizational development to help online education assume its rightful place in what makes universities excellent, respective and essential to their communities.

Who's in charge of online?

Which of the following best describes the current organizational structure of your institution's online programs?
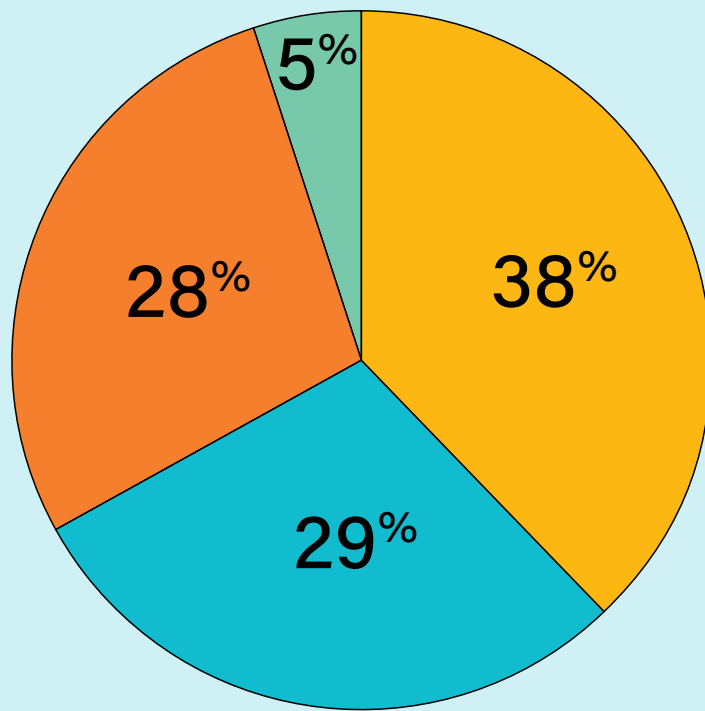
Centralized
One division handles management of programs, no matter what academic area they're in

Decentralized
Each academic school/department manages its own online programs

Hybrid, within each program
Some aspects of programs are handled centrally, and other aspects of the same program are handled within individual schools or divisions

Hybrid, program by program
Some programs are handled centrally, others are decentralized

40%
—Respondents who say their programs used to be organized a different way

Source: UB survey with 164 respondents; percentages have been rounded

and faculty expertise or university resources. The provost will meet with deans and department chairs to discuss how particular programs can be scaled online and what resources are needed to make it happen. "The motivation for revenue generation is strong, says Schroeder. "But there is also a desire to serve more people."

While IT is the home for online program management at less than 1 in 5 institutions surveyed by UB, the CIO often comes to the table in discussions about expanding online learning. "It's not only because of the need for equipment, but also to maintain security and best practices, especially with

students using so many devices to access resources online," Schroeder says.

No matter what organizational model is chosen, trying to stick with it is generally good practice. "A lot of traction is lost when you shift," he says. "The staff members working on this look for a consistent structure so they can get the job done. Moving reporting lines is simply a distraction from those activities." **UB**

Melissa Ezarik is managing editor of UB.

SUCCESS
for the
ONLINE
student

Improving online program retention through student services

By Sherrie Negrea

With nearly one-third of students dropping out of online degree programs, colleges and universities are providing a growing array of support services to boost retention rates of online learners.

"Student services are the foundation of success in an online program," says Simone Conceição, coordinator of the "Support Services for Online Students in Higher Education" certificate at the **University of Wisconsin-Milwaukee**. "It's critical because the support is what's retaining the students."

Nationally, 32 percent of students have dropped out of an online college-level degree or certificate program, according to a 2016 report published by Learning House and Aslanian Market Research, both of which are involved in online program consulting. The most common reasons students cite for leaving are changes in family circumstances and a lack of money.

While many online programs have tried to increase retention rates with traditional student services, such as financial aid advising and writing center support, some schools are experimenting with cutting-edge student success initiatives.

Following are three innovative models institutions have adopted for online student services:

Offering a test run for students

At **Drexel University** in Philadelphia, half the students who sign up for an online course have never taken one before, which increases their anxiety about entering the digital educational landscape, says Susan Aldridge, president of Drexel University Online.

To help new students transition into online instruction, the university created a multistep orientation process for online learners. First, students accepted into a degree or certificate program receive an orientation acceptance kit, consisting of planners to track assignments and tips on how to organize time and prepare for courses.

Students then can take a free test drive of an online course—a one-week general class that teaches them the nuts and bolts of submitting assignments, conducting research and accessing the library and other resources. In the past two years, nearly 5,000 students have completed one of Drexel's test-drive online courses.

In surveys, students report feeling much more confident and that they have much more understanding about how the learning management system works, Aldridge says.

New online learners typically need more support than students who have already taken an online course, says Conceição, coauthor of *Motivating and Retaining Online Students: Research-Based Strategies That Work* (Jossey-Bass, 2014).

The availability of services such as academic advising and tutoring are critical to the retention of novice online students who may feel disoriented because they aren't learning in a physical classroom, Conceição says. "As they become more self-directed and more independent, they use less support."

Giving career services a boost

While more than half of students who take exclusively online courses live in the same state as the school they attend, they may still be located far from their institution. That makes providing online students with internships a difficult task.

DATA POINT

Students who didn't finish an online college-level degree or certificate program were asked why:

34% Family circumstances changed

26% Out of funds

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
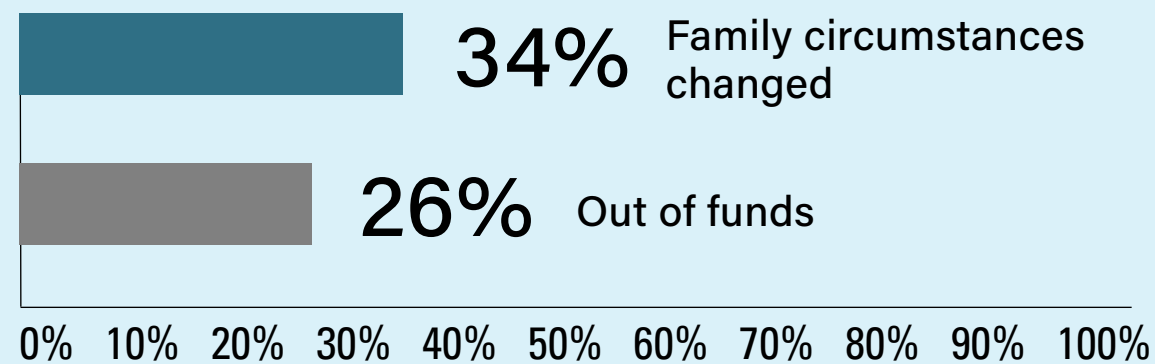
Source: "2016 Online College Students: Comprehensive Data on Demands and Preferences," Learning House and Aslanian Market Research

SUCCESS for the ONLINE student

Colorado State University-Global Campus, a completely online state university, arranges for students to work at internships in either a new department at their current company or part-time at another firm in their local vicinity. Because 25 percent of CSU-Global's students want to change fields, interning in a new career is a crucial part of their education.

"It's essential for them, when they go out and look for a new job, to have had some seat time in a job they don't have," says Provost Jon Bellum.

One new career service the university added this fall:

Students often select online programs based near home:

74%
Online college students who have enrolled in a program at a college or university within 100 miles of their home

57%
Those who chose an online program within 50 miles of home

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Source: Babson Survey Research Group and Quahog Research Group, with support from Sloan Consortium and Pearson, 2013

An online database that aggregates job postings from nearly 40,000 websites across the country and lists the skills and qualifications employers are seeking. Available to students and alumni, the database is offered by a job market analytics firm.

"If a student wants to be a project manager, he can ask where all the project management jobs are, what states have the most jobs and what are the top skills being advertised," Bellum says.

In addition, CSU-Global provides 27 career coaches who advise students—via video conference or phone—on the types of courses they need for specific careers. Students can also take employment-related webinars offered by more than 500 corporations affiliated with the university.
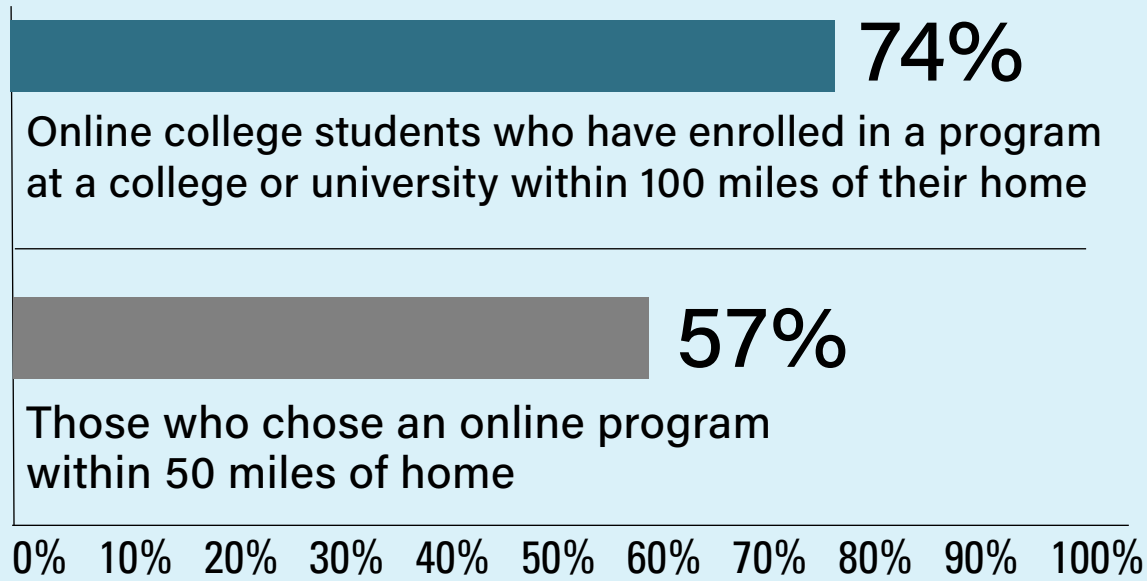
Offering 24-hour support

Since most online students work full-time, they tend to focus on their courses in the evenings and on weekends. If online learners want to access student services, the support must also be available after 5 p.m. and on weekends.

At **Texas Tech University**, administrators are transitioning most of the school's services to a 24/7 model. Not only will students have anytime access, they also will be able to talk to someone who can answer their questions—whether it's on financial aid, registration or a technical issue.

"The biggest change I've seen is knowing that you have to provide services to students when they need them, and it

can't be on the 8-to-5 clock," says Justin Louder, associate vice provost. "Most distance students aren't available then."

In 2016, the institution contracted with its learning management system provider to answer phone calls from students at night and on weekends.

Providing live support to students 24 hours a day will help online learners feel more connected to the university and motivate them to stay in their courses, Louder says. "If they have someone to talk to at 2 a.m. on a Sunday morning, I think that will go a long way in helping retention and improving graduation rates." **UB**

Sherrie Negrea is an Ithaca, New York-based writer who frequently writes for UB.
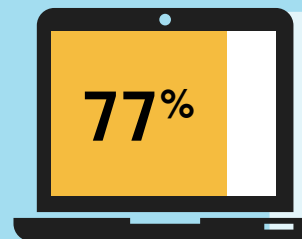
VIRTUAL SERVICES FOR STUDENT SUCCESS

UB readers with online programs on support services offered for students enrolled in those programs

FACULTY ADVISING

85%

*Professionals as academic advisors as well as faculty
*Dedicated student support specialist for each individual online student

TUTORING

77%

*Virtual writing center
*Online retention specialist to monitor online behavior and catch students who are falling behind

CAREER ADVISING

62%
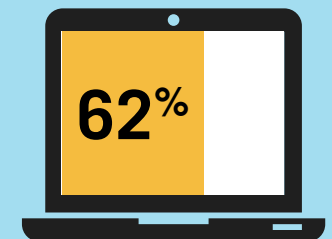
TEAMWORK/COLLABORATION OPPORTUNITIES

49%
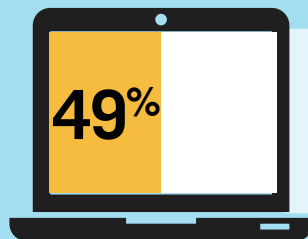
*Cohort model within program
*Opportunity to present research virtually

VIRTUAL STUDENT CENTER
(or other online community-building space)

31%

*Online education-specific honor society

ALUMNI RELATION SERVICES

29%

PHYSICAL INTERNSHIPS

27%

* Innovative options to consider

Source: UB survey with 164 respondents

Higher ed's digital skills gap

It's not just faculty who need to become more tech savvy

By Debbie Morrison

Most educators today possess the digital skills needed to function in academic life. There are the basics—managing email, using the learning management system and uploading papers to plagiarism checkers, among others.

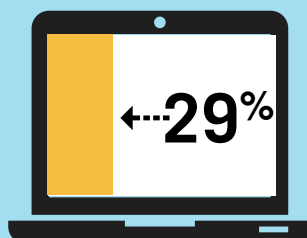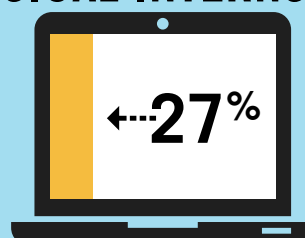Yet some faculty still struggle with basic LMS functions. Then there's the ever-expanding array of apps, online platforms, collaborative digital tools—and the latest trend: Messaging platforms that are replacing email, face-to-face meetings and other traditional methods of communication.

The skill level that's required of faculty to keep current with the changes in technology is expanding. Educators must learn to harness the best of digital technology, not only to remain relevant, but to improve learning outcomes for students. But it's not just faculty who lack digital skills.

The student skills gap

Intuitively, we think it's faculty—not students—who need the most support in expanding their digital capacity. Though students may have mastered social media, they lack the breadth and depth of skills to thrive in a global economy where knowledge and digitization is transforming business and social institutions.

> Educators must learn to harness the best of digital technology to remain relevant, but it's not just faculty lacking digital skills.

The Association of American Colleges and Universities surveyed employers' and students' perceptions of how prepared college graduates were for the workplace. The responses revealed students lack skills in:

• locating, organizing and evaluating information
• staying current on technologies
• staying current on global events

—Source: "Falling Short? College Learning and Career Success" by Hart Research, 2015

The skills needed

What then is the answer? I suggest the skills gaps need to be addressed at the institutional level for students and educators. The goal should be for students and faculty to thrive in a digital and social economy.

Below are lists of digital skills for both students and faculty. They are designed as starting points. The goal is to get institutions thinking about how to raise the skill level of their students and faculty.

Digital skills required of students:
• Locate, curate and organize digital

information for academic, personal and/or professional use.

• Create digital web content, websites and blogs to communicate concepts and messages effectively.

• Evaluate the credibility of digital news sources to keep current on scientific, business and political events.

• Leverage employment opportunities and explore career paths across digital platforms.

• Participate in professional development and lifelong learning using online platforms and digital applications.

• Contribute to and engage in community and national events and initiatives.

• Protect digital identity and privacy.

Digital skills required of faculty:

• Leverage digital tools and online platforms, following sound pedagogical principles, to support student learning

• Locate and implement open education resources

• Use digital tools, platforms and the institution's learning management system to support efficient and effective teaching activities

• Use LMS and other platform data to identify students requiring additional services and learning support

• Participate in professional development and lifelong learning using online platforms and digital applications

• Create and participate in a personal learning network leveraging digital platforms

A digital framework in action

The aim of this article is to get institutions thinking about creating their own frameworks and strategies for building the digital capacity of faculty and students. Many are already well on their way.

A group of universities in Ireland, for example, has built a digital skills framework, All Aboard (http://UBmag.me/dm). The initiative is funded by Ireland's National Forum for the Enhancement of Teaching & Learning in partnership with several universities. The organization has created an interactive map, modeled after a subway system, that sorts major skill sets into branches.

Examples include Tools and Technologies (grey), Teach and Learn (blue), and Identity and Well-Being (black). Along the route of each branch are subsets of skills that support each competency.

This type of visual map is a good tool; it makes sense of the breadth and depth of skills needed for digital proficiency. It's a good starting point for a novice, but also serves as a tool to advance the experienced person's skills—or for developing a framework for professional development.

Closing the digital skill gap for faculty and students appears a daunting task—daunting, but not impossible. The starting point is determining the skills needed, then creating a plan to tackle each, ideally within a framework like the All Aboard initiative. Easier said than done, but it's critical for supporting faculty and college graduates so both groups can thrive in a digital world. **UB**

Debbie Morrison is a consultant and founder of Online Learning Insights, a platform dedicated to advancing skills for educators and developing online courses and learning strategies for education organizations.

Teaching faculty to teach ONLINE

The demand for skilled online instructors means rethinking faculty development

By Tim Goral

GETTYIMAGES.COM: DIMA_SIDELNIKOV

Online and hybrid learning allows colleges to serve the growing number of students who can't attend classes on campus because of work, health or family issues. It's a powerful tool in the quest to make higher education available to anyone—but it can be a double-edged sword.

"I'm a great believer in the value of online learning," says Tony Bates, "but too often, it isn't done very well." A Vancouver-based consultant in the planning and management of e-learning and distance education, Bates not only has taught online for many years, he has advised institutions on their

online learning strategies in more than 40 countries. "It's important to give faculty and instructors a realistic appraisal of what they are getting into."

And, while "what they are getting into" may have the same goals as conventional teaching, there are many online-specific considerations.

A different experience

Teaching is teaching, right? Not quite. "You want to get as many students engaged in a discussion as possible, and you

need good questions that are related to the content," Bates says. An instructor must intervene regularly to ensure students know their work is being monitored. This requires a more conscious effort in an online class, where text messaging may be the primary mode of communication.

Beyond that, teaching online differs in the way the class progresses through time, says David Clinefelter, the former president of **Graceland University** in Iowa and now chief academic officer at Learning House, which helps institutions reach their online education goals.

Moving to an online format

When teachers consider taking their class online, they often ask whether it means more work. "The short answer is, yes, of course, at least at first," says e-learning consultant Tony Bates. "Online teaching is the same as any other skill. When you first start, you have to learn a lot, and you'll do things you haven't done before." After that initial learning curve, there's no reason online teaching should be more work than face-to-face teaching. Bates suggests:

• *Redesigning the instruction.* Don't try to move face-to-face teaching online by just recording lectures. Although this may seem to be a time-saver when developing an online course, it can cause a lot more work down the line. Some students won't understand parts of a lecture and when this happens, watch the e-mails or phone calls or even

tweets roll in from students. The course completion rate also can take a dive. Work with an instructional designer to set clear learning outcomes and objectives for the course. Break the learning down into manageable chunks of time and provide appropriate learning activities, such as online discussion forums. Ensure assessment and feedback are continuous throughout the course.

• *Managing class size.* Some institutions use online learning to handle large classes or accommodate extra students. The general rule for online class size is pretty much the same as for face-to-face teaching. Once the instructor/student ratio goes over 1:30, it becomes harder to individualize the teaching and the instructor's workload increases. Unless the course is focused mainly on quantitative or

objective outcomes that can be automatically assessed, larger classes can lead to overload when it comes to grading. However, in a well-designed course in which all students receive the same quality of content instruction, part-time instructors can help support learners and manage assessments as class size increases.

• *Shifting from content to skills development.* Online learning represents a shift in the instructor's traditional role in choosing and delivering content, and assessing how well students comprehended this content. The technology encourages instructors to become guides. Students find, analyze and apply content, and develop higher-level skills through practice, often working with other students through online discussions and projects.

Instead of communicating with a whole group of students, online instructors must offer more one-on-one feedback throughout a course. It's a much different style or flow for the way the course plays out in the interaction between students and the faculty member.

The right person for the job

Not everyone is cut out for this demanding role of presenting lessons to students who are represented only by screen names and text messages.

In the online classroom, the instructor has to create opportunities for group activities, such as discussion forums where students respond to a faculty question. These can take place synchronously or asynchronously to create a group dynamic. The faculty member can participate by posing challenging questions to various students.

Face-to-face and online teaching styles are beginning to merge. "I'm seeing more classroom teachers becoming adept at using the LMS to communicate with individual students, and they are beginning to understand that it can be used to create discussion forums," Clinefelter says.

As a result, more institutions are making these basic online skills a prerequisite for new hires. "All faculty members should know how to use an LMS and should be able to integrate it into a face-to-face or online class," Clinefelter says.

"They will have the opportunity to pick and choose which components of the class work better in person and which would be more effective online."

The most important contact any potential online instructor can make is with an instructional designer, who can take a live classroom experience and recast it as an asynchronous experience.

Getting started

Too often, instructors take their class to an online format without thinking it through, Bates says.

"The problem is that people often start too late in the process. They decide maybe three or four weeks beforehand that they want to go online and they never really step back to consider the best way to approach it," he says.

The most important contact any potential online instructor can make is with an instructional designer, who can take a live classroom experience and recast it as an asynchronous experience.

"Online, you have to work harder to make your presence felt," Bates says. Instructors can't rely on visual cues from students and personal interactions will be replaced by text messages.

Teaching faculty to teach ONLINE

Institutional support

Faculty development for online teaching runs the gamut from highly effective to virtually useless, says Bates. "There are excellent schools, like **Drexel**, that are very professional in the way they offer online programs, and there are some schools—often community colleges—that are just terrible. They just hire adjuncts with minimal training and see it as an inexpensive way to keep their enrollments up and there revenue flowing."

Another model is the **University of Central Florida**, where faculty can't teach an online course unless they've taken a compulsory course in how to teach online. Bates says a number of universities, such as Virginia Tech, will now allow a faculty member to drop one of their face-to-face courses for an entire semester to work with an instructional designer to perfect the course before it goes live. At the very least, potential online instructors should take some of the many workshops offered through most universities' centers for teaching and learning, he says.

Assessing effectiveness

Many schools make a mistake in not following through once a course goes live. Clinefelter says he's seen several cases where the only indication of an online course's effectiveness is a student survey. "In one study we did, a community college was generating about one-third of its credit hours online, yet it had no requirements for faculty except for a yearly workshop," he says. "The only way they knew whether there was a problem was if they got a complaint. There was no mechanism for assessing the program."

> *Institutions can learn something about online teaching from for-profit higher education—schools that may have very careful processes in place to identify, screen and select potential faculty.*

Institutions can learn something about online teaching from for-profit higher education, says Clinefelter, who was chief academic officer at two large for-profit online universities. "They had very careful processes in place to identify, screen and select potential faculty."

A department chair observed instructors in the first week of teaching online, in the middle of the course, and at the end of the course. A senior faculty member who had taught the class before was available to offer help and guidance. And then there was a careful review of student survey data at the end of the course. "If the survey data wasn't good enough," he says, "they weren't invited back." **UB**
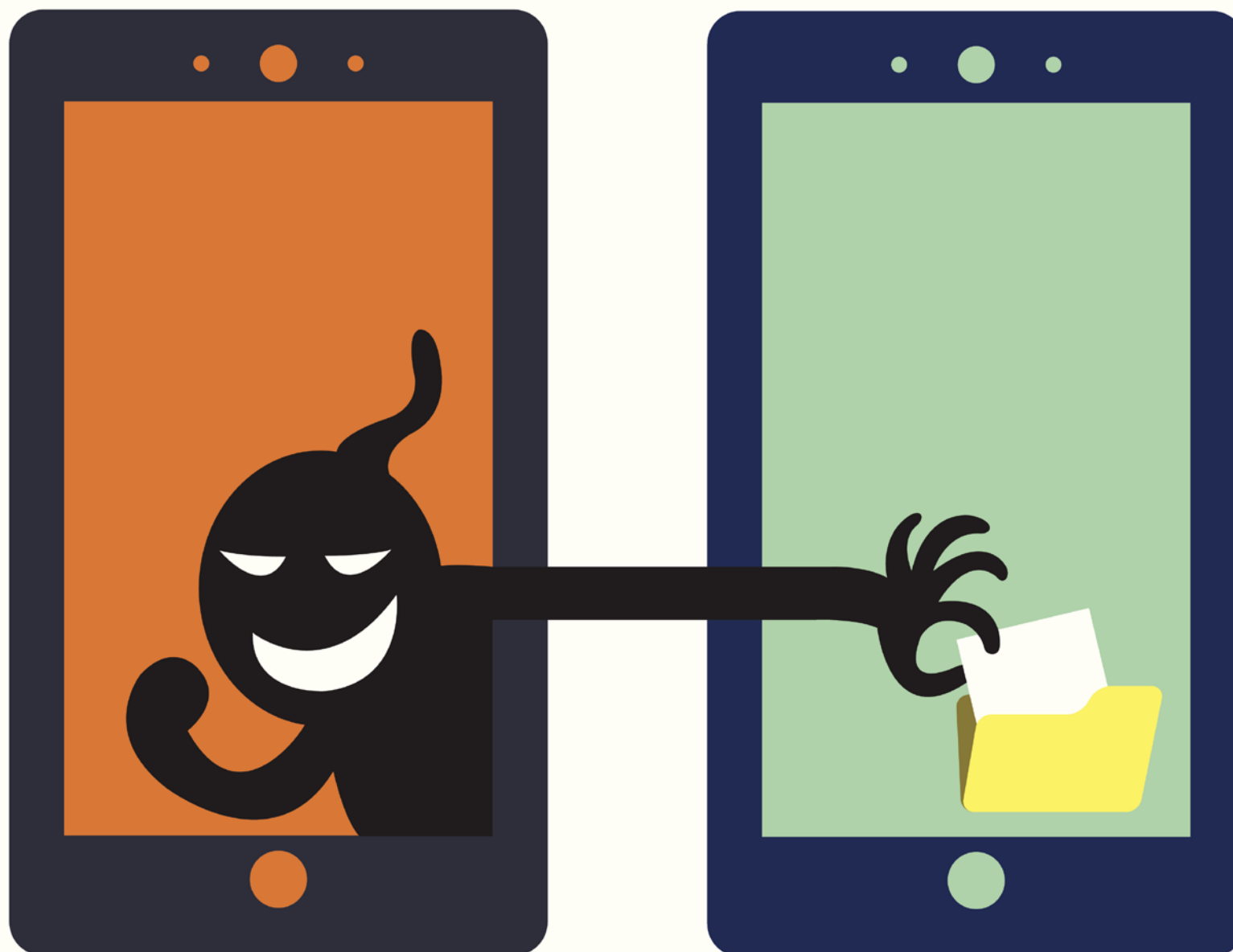
Tim Goral is senior editor of UB.

DEFEATING online CHEATING

Technology is key, but it's not the only way to keep online students honest

By Matt Zalaznick

GETTYIMAGES.COM: JESADAPHORN

While the fear of rampant cheating in online courses may outweigh the reality, instructors now combine smarter course design, advanced technology and good old human interaction to maintain academic integrity.

As many administrators know, online classes have given rise to some elaborate new cheating techniques, such as companies that not only will write papers, but will take an entire class for a student. Still, many online educators say cheating occurs as often in face-to-face classes as it happens in online courses of similar sizes.

Students—whether they're on campus full-time or learning at their kitchen table—are more likely to cheat in large, first-year introductory classes where they have little contact with instructors. "If you want academic integrity, you have to allow for

DEFEATING online CHEATING

interactivity," says Teddi Fishman, executive director of the International Center for Academic Integrity at **Clemson University** in South Carolina.

Still, higher ed remains locked in an arms race against academic dishonesty, says Jon Bellum, provost of **Colorado State University-Global Campus**, an entirely online program.

"There always will be a very small subset of students who try to demonstrate their learning through unethical means," Bellum says. "We must be vigilant and employ as many strategies as possible to ensure the integrity of the learning on our campuses."

Customized tests and written reflections

Instructors and institutions can design online courses in ways that make it harder—and less tempting—to cheat. The **California Community Colleges** system, for instance, provides professional development that shows instructors how to develop more frequent and varied assessments during a course.

"The easiest courses to cheat in are the ones that have just a few high stakes assessments, like a mid-term and a final, with true/false or multiple choice questions," says Jory Hadsell, chief academic affairs officer for the system's Online Education Initiative.

Victoria Simpson Beck, a criminal justice professor at the **University of Wisconsin Oshkosh**, has studied cheating while

teaching online over the last 10 years. For lower-level courses, she creates large "question banks" for tests so each student gets a different exam. She also bars students from moving back and forward on an exam to prevent them from answering all the questions they know and then going to look up answers on another website or in a textbook.

More frequent and shorter tests in her courses all count the same. "When you're teaching in large classrooms, you don't know if a student sitting there is the student who's supposed to be taking the test, either—there's no way around it," she says.

Instructors should have students write regular reflections on what they've learned, Hadsell says. Cheating often can be easily spotted in writing assignments, should a student's style or opinions change drastically.

DEFEATING online CHEATING
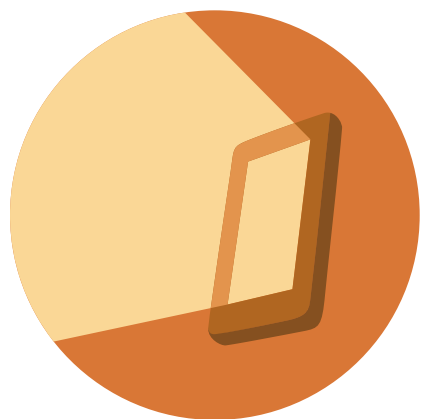
Detecting a cell phone's glow

Instructors at CSU-Global Campus run just about every assignment through an originality checker to spot plagiarism and other irregularities. An online verification tool—requiring each student to enter a password—verifies the correct students are taking tests, in part by tracking IP addresses.

A related tool randomly polls students during each eight-week class. Students must answer security questions a little more complicated than the typical "What was your first pet's name?" Bellum says. These questions, pulled from credit reports, could ask students their address in 1999 or what their monthly car payments are. (This level of depth also could catch students who've paid someone else to take the entire course.)

Among the 4,000 checks performed each month at CSU Global, about 2 percent of students fail and are locked out of their courses. This requires them to meet with an advisor and explain the discrepancy, Bellum says.

California's community colleges have received a state grant to pilot new security tools at 24 of its 113 schools. An online proctoring tool can check students' IDs and take a picture before an exam—a defense against cheating on individual assessments as well as against paid course-takers.

Instructors can set further rules for what's allowed during a test, Hadsell says.

In addition, web-cam footage and a tracking function can show whether a student did anything unusual during the test, such as having gotten out their chair or navigated to another website. The tool can even detect the glow of a cell phone screen in case a student is using a second device to look up answers, Hadsell says.

Aggregated data on a whole class can help instructors spot further anomalies. For instance, it could flag a student who finished a test in four minutes when the class average was closer to an hour.

Psychological incentives

One factor that may be causing cheating in online courses is a desire by some administrators to move as many students through the programs as possible, says Fishman, of Clemson.

Higher education itself must change its perception of online education, she adds.

"Students sometimes gravitate to online courses because they perceive them as easier, but that perception is, sadly, often shared by administrators who want to put more students into online classes because they think they are easier to teach," she says. "Actually, the converse is usually true."

The lowest-tech solution to cheating involves instructors simply getting to know their students. Beck kicks off online

DEFEATING online CHEATING

discussions at the beginning of her courses at Wisconsin Oshkosh. "You're asked to introduce yourself and share what you feel comfortable sharing, like why you're in the course and your academic and career goals," Beck says.

This also helps students connect with each other. Some have thanked classmates who served in the military, for instance. In other cases, two police officers have become friends.

"It sets a tone, and makes people comfortable in the course," she says, adding that comfortable students are less likely to cheat.

CSU-Global Campus' small class sizes—an average of 13 students—are a natural barrier to cheating, Bellum says. Instructors, especially in graduate classes, try to personalize assignments, such as by asking students to solve a problem at their workplace.

Students sometimes turn to cheating in desperation when

DID YOU KNOW?

Keystroke verification software can identify a student's typing rhythms, and spot whether someone else is entering answers during an online test.

they struggle with an assignment and feel they have no other choice. To help students overcome these hurdles, the California Community College system offers 24-7 tutoring for all English and math courses, and hopes to expand the service, Hadsell says. (See "Success for the Online Student" for more information on online student support services.)

Buying experiences

Instructors across the country also must help students overcome the stress caused by the more independent nature of online education, says Michael D. Abbiatti, vice president for educational technologies for the Western Interstate Commission For Higher Education's Cooperative for Educational Technologies.

Online learning, and other technologies, have shifted the emphasis of higher ed from content to context. Students know how to use the technology—they need guidance learning how it functions in the real world, Abbiatti says.

"Students have basic skills—they want to know how to apply them," he says. "Students today don't want to buy content, they want to buy experiences. When we provide high-quality experiences, then the stress on the student to cheat is less." **UB**

Matt Zalaznick is senior associate editor of UB.

ACCESSIBILITY CAPABILITY

CC

Working as a team so students with disabilities can access online content

CC

By Theresa Sullivan Barger

Online courses must be fully accessible to all students with disabilities under the Americans with Disabilities Act. That's the directive stemming from the 2015 settlement between the U.S. Justice Department and Harvard and MIT's provider of MOOCs.

Higher ed institutions seeking to comply with the law should implement modifications to fit the needs of all types of student disabilities upfront, experts say.

Administrators can build IT accessibility into course planning from the start, just like they build IT security into all technological systems from the beginning, says Greg Kraus, principal accessibility specialist with Interactive Accessibility, a consulting firm.

During online course development, professors can partner with either an in-house instructional designer or an outside vendor to ensure that all text, video, images and graphs can be read by a screen-reader and that every word spoken is closed captioned. These and other measures ensure that

ACCESSIBILITY CAPABILITY

students with learning disabilities and physical challenges can access the information, take the quizzes and tests, and complete course work.

While the capabilities to accomplish all that exist, it's a tall order.

Oregon State University puts all faculty through a six-week online program in which they learn to create courses, says Shannon Riggs, director of course development and training. Faculty also partner with instructional designers before the first class to verify that the entire course meets Web Content Accessibility Guidelines 2.0 AA, developed by the Web Content Accessibility Guidelines Working Group (part of the World Wide Web Consortium Web Accessibility Initiative).

Instructional designers are familiar with what works and doesn't work for all types of disabilities, Riggs says.

But having someone else focused on evaluating online courses for accessibility, says Kraus, is ideal. An accessibility coordinator, for example, can advocate for outside help if the institution doesn't employ instructional designers.

This administrator must have access to the CIO and institution's attorneys to help top-level officials understand the problem, the resources needed to implement solutions and potential liability, he adds.
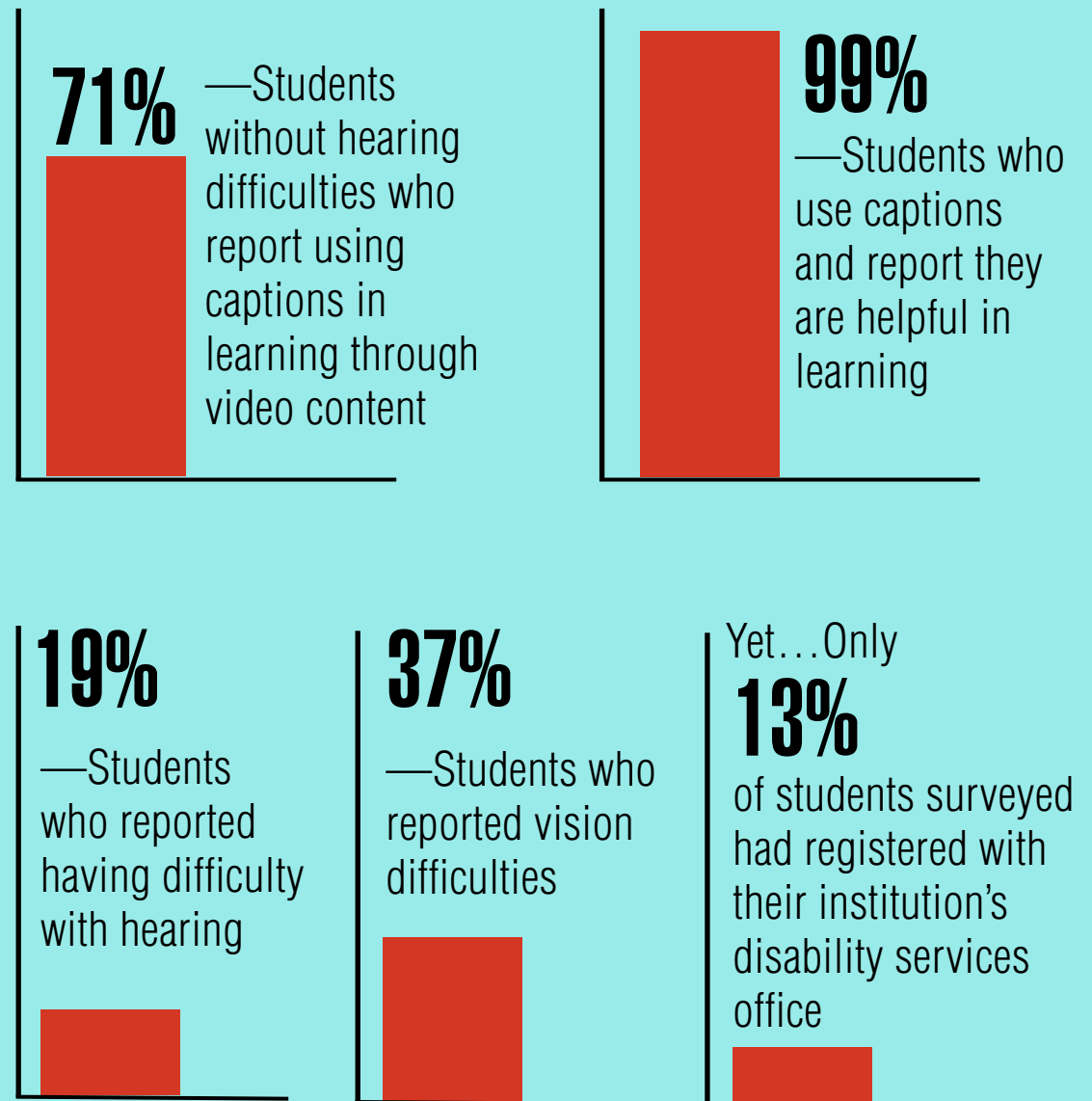
Recalling his four years spent as **North Carolina State University**'s accessibility coordinator, Kraus says he had the opportunity to communicate the ramifications of resource
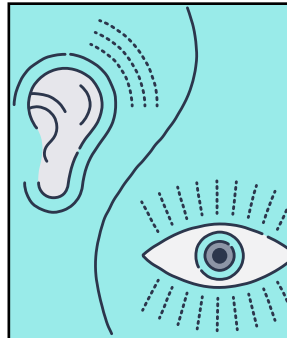
CAPTIONS FOR ALL?

Why captioning all the time, not just when an accommodation is requested, may be good practice

71% —Students without hearing difficulties who report using captions in learning through video content

99% —Students who use captions and report they are helpful in learning

19% —Students who reported having difficulty with hearing

37% —Students who reported vision difficulties

Yet…Only **13%** of students surveyed had registered with their institution's disability services office

Source: "Student Uses and Perceptions of Closed Captions and Transcripts," 2016; based on a survey of 2,124 students from 15 universities conducted by Oregon State University's Ecampus Research Unit in partnership with 3Play Media, a closed caption provider; percentages have been rounded

ACCESSIBILITY CAPABILITY

decisions made to those top-level officials. "We were able to have frank conversations about the risk management."

He advises that campus officials establish a rule that accessibility is not an "extra" for online courses, but rather part of the educational mission.

Focus on all, not one
Providing accessibility based on who is enrolled in a particular online course may appear to be easier, but is actually more difficult, time-consuming and expensive than doing what needs to be done for all courses so they are accessible from the very start of the semester.

In a 2013 Justice Department settlement with **Louisiana Tech University**, the agency found that a blind student's rights were violated because the online material needed for the course was inaccessible to the student for nearly a month.

The institutions that fail are those whose efforts are reactive to individual needs, says Bea Awoniyi, board chair of the Association on Higher Education and Disability (AHEAD) and assistant vice president of student affairs at **Santa Fe College** in Florida.

Students with physical challenges may not be able to move a mouse and those with learning disabilities may get distracted by a lot of moving parts. They may need the information bulleted or highlighted in different colors or they may want to pause a video to read the text, says Claire Hall, principal at UECAT, an ADA compliance consultancy.

Instructional designers eliminate the obstacles to learning, Awoniyi says. "It may not look as jazzy as the professors may want it, but it conveys the information."

Employing universal design standards has another plus: Some measures created to accommodate for disabilities may help typical students learn better.

"Many people associate the use of closed captions and transcripts only with disability accommodation," says study author Katie Linder, director of the **Oregon State University** Ecampus Research Unit. "A range of students are using these tools, and making them more available could help more learners." **UB**
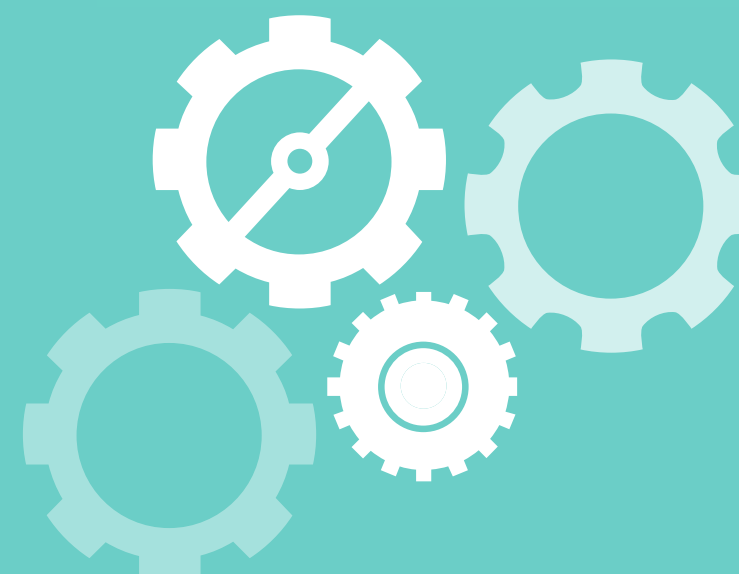
Theresa Sullivan is a Hartford, Connecticut-based writer.

TECH GEAR for online COURSE CREATION

By Christopher Miano

Creating and delivering online course content involves working with a variety of technology systems and tools.
Here's a breakdown of what should be on hand or in the budget.

TECH GEAR for online COURSE CREATION

A web conferencing service

The most important part of any synchronous online program is the web conferencing software used to conduct classes. Most professors and students will consider time spent in the web conferencing software as in-class time, so you want it to go smoothly and be used effectively. Think long and hard because you will have to invest money in purchasing licensing and time to train faculty and students in use of the platform.

Features to inquire about during the decision-making stage include: phone, app and web sign-in options; and virtual breakout rooms. Other considerations are how reliable the service is, ease of use and LMS compatibility.

Talk with faculty to choose a service that fits the desired teaching style. For example, if the institution follows a flipped model of teaching, breakout rooms will be essential for students to collaborate.

A place to organize classes and content

Most colleges and universities already have a learning management system (if you don't, you should). But it's important to ensure professors are using it to its fullest: they can host content, administer tests and create message boards while still only scratching the surface of what an LMS can do. Many newer systems are designed so that classes are easy to set up and accessible from any device.

And for institutions that have been using the same LMS for 10 years, it might be time to take a look at what new entrants in the market have to offer.

DATA POINT

40% —Colleges with online programs that are using web conferencing software with breakout room capability

Source: UB survey with 164 respondents

Content-building tools

Text is probably never going to completely disappear from higher education curriculum, but students in online programs (and honestly new students in general) crave new and different forms of media.

A true online program should have an instructional design team to guide professors in building activities and importing web content that can be used for classes (and in making sure that material is ADA-compliant).
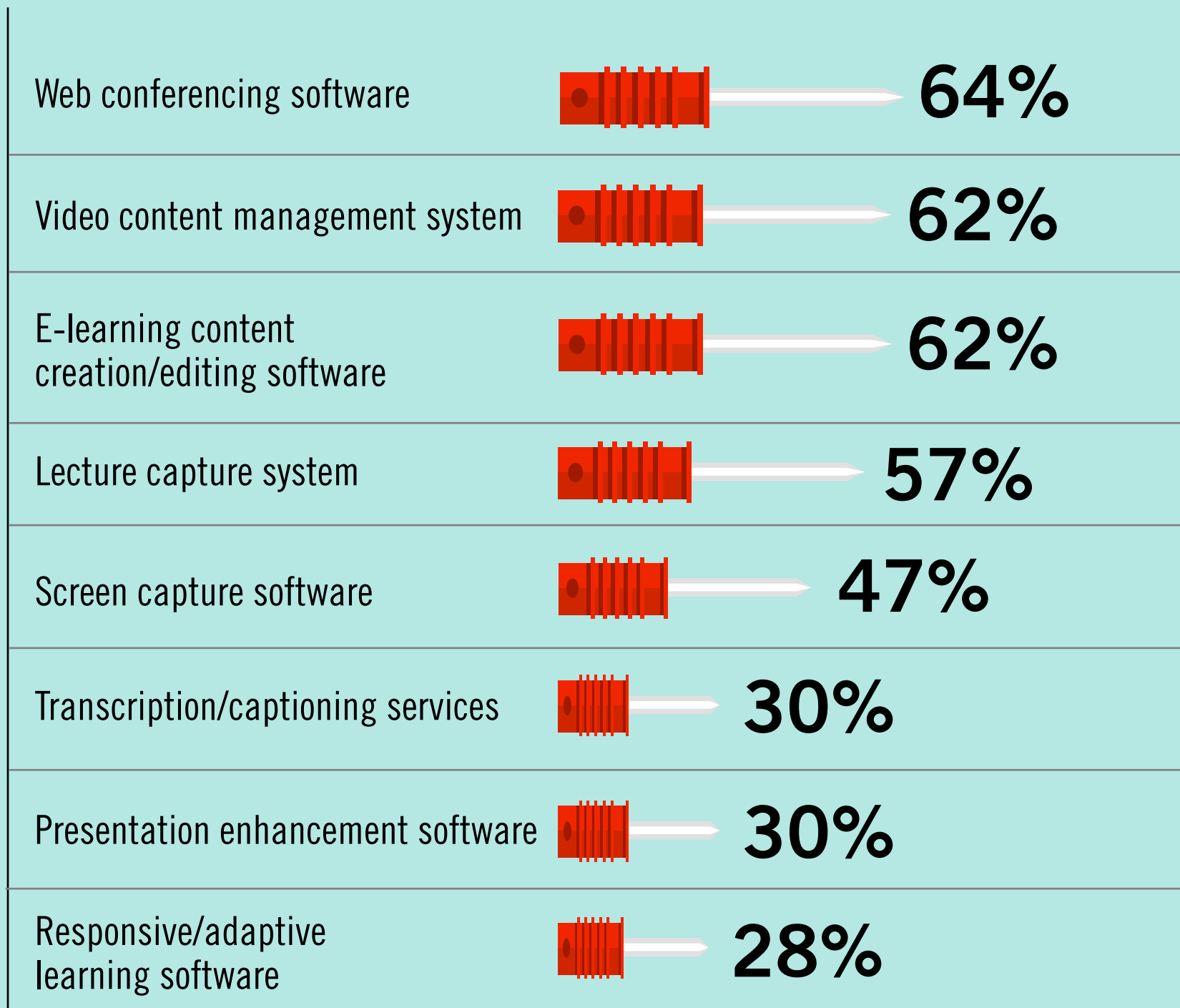
Learning content can consist of custom and premade websites, instructional videos, interactive activities, infographics and more.

Video content, whether created in-house, selected from existing online collections or supplied by the textbook publisher, is one key piece; also needed are multimedia authoring tools and content editor tools. **UB**

Christopher Miano is manager of instructional technology for Temple University's Fox School of Business.

TECH GEAR for online COURSE CREATION

8 top online program tech tools in use

Tool	Percentage
Web conferencing software	**64%**
Video content management system	**62%**
E-learning content creation/editing software	**62%**
Lecture capture system	**57%**
Screen capture software	**47%**
Transcription/captioning services	**30%**
Presentation enhancement software	**30%**
Responsive/adaptive learning software	**28%**

More tech gear options

- Plagiarism check software
- Speed-builder software for LMS courses
- Lightboard system (part digital chalkboard, part projection screen)
- Online quiz creation and proctoring
- ID verification software
- Virtual lab development software

Source: UB survey of colleges with online programs, with 164 respondents

Thank You!

We are grateful for the generous support of these education market leaders who made UB's special editorial report on Online Learning available for free to campus leaders nationwide.

We thank you for your commitment to education excellence!

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