# Evolving Learning
## for the New Digital Era

A selection of news articles from *Inside Higher Ed*

# Blackboard

While higher education has always been focused on student success, we are entering a time of transition even around this longtime metric.  In a recent study, 98% of college & university presidents think that change is needed in education.  And 67% think the change needs to be disruptive (Chronicle of Higher Ed study from 2014). The definition of student success is broadening with a necessary focus on learner-desired outcomes beyond our traditional institutional success measures of progress and completion.  Schools have to be focused on demonstration of applied learning and career development in a way they have not before.

There are also increasing pressures from the public policy arena, where we see increasing adoption of performance-based funding measures across the country and federal goals on affordability and employability.  From our perspective at Blackboard, as a company that has been squarely focused on education for the past 18 years, one of the most interesting changes today is the change we see is coming from the learners themselves.

Students of today are behaving like consumers when it comes to making decisions about their education. They want to be active participants in their education, they want to emerge from their educational experience with meaningful career opportunities and they are shopping for the best value from their investment in education.  The learners of today also expect our education systems to be technology enabled and customer service oriented. They expect to use apps to check course work, application or financial aid progress, and chat with a support team member or counselor when they need help.  They want anywhere, anytime access to their educational experience because that is the way they live.  We believe that it is critical for colleges and universities to be laser focused on the changing needs of the learner because it is imperative to both student success and their success.

At Blackboard we are working with over 2700 institutions in North America.  We are embracing these changes through a new commitment to learner centric design in our products and services. We are launching an innovative new user experience in our flagship Learning Solutions and working closely on best practices in leveraging analytics to drive learner success and completion.  We aren't stopping there, we have just announced a strategic partnership with Achieving The Dream and have been working with the American Council on Education for over a year on competency-based Learning initiatives and research.  We are working with systems like the University of Louisiana on learner centric technology that will help them meet their goals in workforce alignment and student success.  It is a very exciting time for Higher Education and as a company we share the commitment and promise to be partners with the industry as we all re-imagine education together.

Please visit us at www.blackboard.com.


Sincerely,

Katie Blot

Senior Vice President, Corporate Strategy and Industry Relations
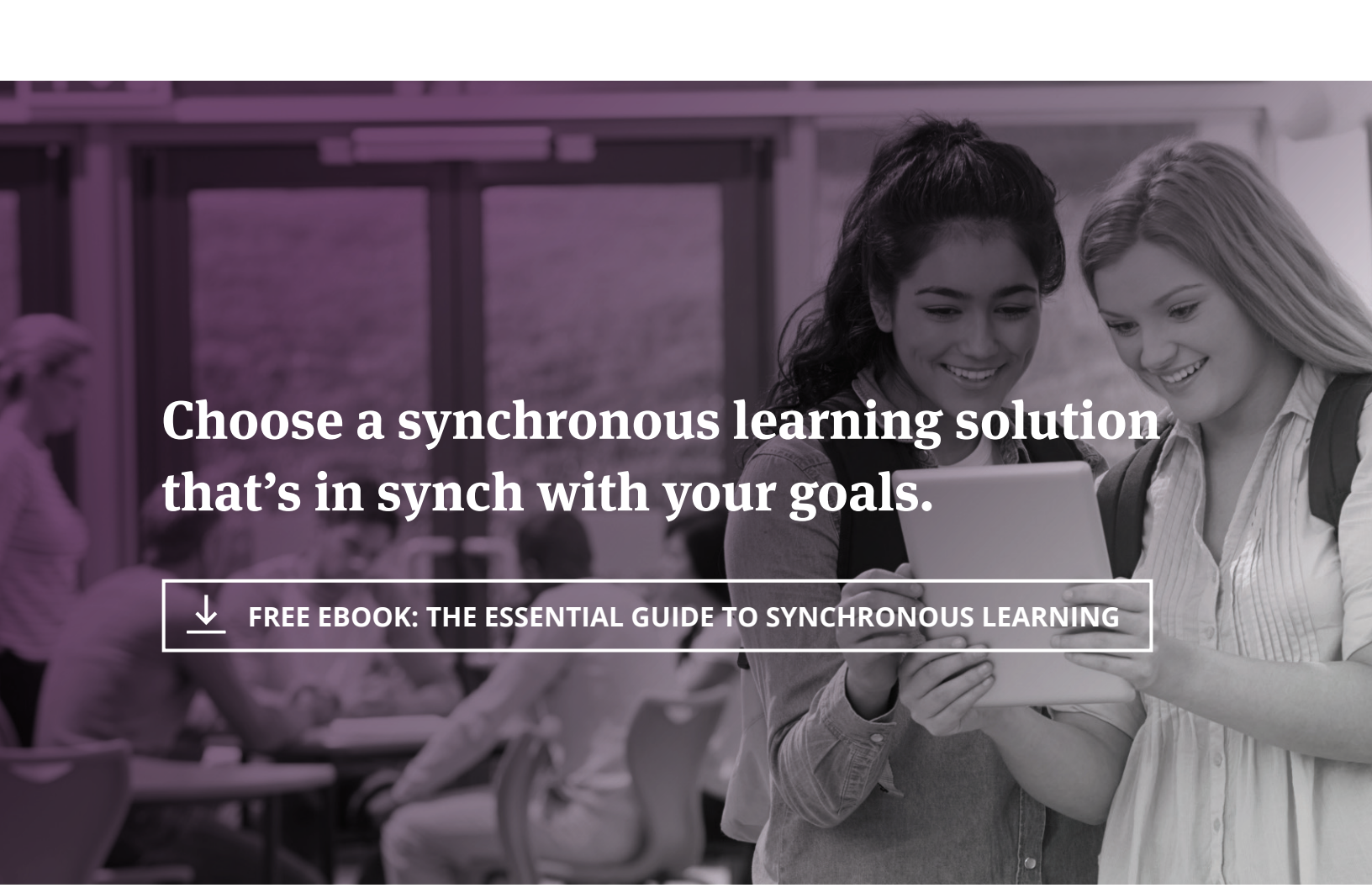
# Introduction

"Next gen" may be an apt phrase to describe the evolving learning environment in an increasingly digital era. Colleges and universities are no longer taking their first steps into the use of digital tools for either in-person or online instruction. Rather this is an era of refinement of strategies.

Colleges that have for up to a decade used digital teaching tools have been doing so long enough that they can track success and failure and adjust accordingly.  Colleges that experimented with MOOCs are applying lessons learned to in-person instruction. With hybrid formats increasingly popular, colleges are mixing and matching the best of in-person and online instruction. And for all of higher ed, having the right learning strategies is closely related to enrollment and financial goals.

The articles in this compilation explore the many ways that teaching and learning are evolving in light of these trends. *Inside Higher Ed* will continue to track these trends and welcomes your comments on these pieces and your ideas for future coverage.

--The Editors
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# A Liberal Arts Take on Tech

By Carl Straumsheim

**Four liberal arts colleges -- all early adopters of massive open online courses -- form a consortium to expand their online education efforts.**

The first four liberal arts colleges to join the massive open online course provider edX are forming a consortium to improve teaching both online and on campus.

Administrators, faculty members and staffers from the four colleges -- Colgate University, Davidson College, Hamilton College and Wellesley College -- met at Davidson's campus in North Carolina in February 2015 to discuss a potential consortium. At a follow-up meeting in May 2015 at Wellesley, a women's college in Massachusetts, the colleges signed a memorandum of understanding forming the as-yet-unnamed consortium, laying the groundwork for closer collaboration between the liberal arts colleges.

Two schools of thought emerged from the February meeting, said Patrick Sellers, vice president for strategic partnerships and professor of political science at Davidson. The colleges could choose an "incremental" approach, identifying faculty members at the institutions whose interests overlapped and letting them explore potential partnerships, or go "bold," creating new courses that would enroll students at all four colleges taught by teams of faculty members.

The colleges have settled on the first approach for now, though the second option is not "off the table," Sellers said. Together, the four colleges say they will share expertise and resources to produce high-quality online courses and content, including MOOCs, and explore how teaching online can benefit residential students.

"The goal here is to talk among like-minded institutions about the use of digital tools in general, when they are appropriate and how they can enhance our model -- the face-to-face student-faculty interaction on campus," said Douglas N. Johnson, associate professor of psychology at Colgate, in upstate New York. The colleges are not looking to re-place that model, he said, "but to use those tools to benefit that very valuable time that our students spend interacting with us."

Beth Porter, vice president of product at edX, said the MOOC provider is interested in the liberal arts college consortium for three reasons. Like other MOOC providers, edX has a lineup of partners dominated by research universities. Supporting liberal arts colleges therefore gives edX an opportunity to explore the use of technology across a "large swath" of subject areas. Given the colleges' strong focus on teaching, edX is also interested in seeing how they build communities and use digital content in face-to-face settings, she said.

"This is a really broad view that we don't get from all our partners," Porter said. "We would love to have more opportunities to work side by side with these schools to figure out how edX can help."

The consortium will initially launch with two goals: to expand online learning at the four colleges and to help faculty members make sense of how students are learning online.

"Because of the [small] size of our faculty across our various institutions, we have to be really selective about how many of these [initiatives] we can do," Johnson said. "Pooling our expertise, in terms of trying to do things that work with our liberal

Officials at Colgate U and Davidson, Hamilton and Wellesley Colleges
sign an agreement to form a consortium.

arts model, is really going to help all of us more quickly understand this space and how it's going to be helpful for our faculty, students and the other constituents we are trying to reach."

MOOCs, as the acronym suggests, are massive courses capable of enrolling hundreds of thousands of students at once, and they produce similarly massive amounts of data about learners. "Anything that a student clicks on or types in, there's a record of that," Sellers said. Saying it takes a "massive" effort to turn that data into useful information "would be an understatement," he added.

Davidson, for example, has offered four MOOCs since joining edX in 2013. The courses have produced more than 8 million individual log events, Sellers said.

Larger universities often have research teams devoted to sorting through those kinds of data -- a task that, because of time or financial constraints, in some cases has fallen to the faculty members teaching the MOOCs at smaller colleges. One of the consortium's first items of business is therefore to hire a data scientist whom the four colleges can share.

EdX, to avoid running into legal issues, makes its partner institutions responsible for all learner data. The MOOC provider merely serves as the "houser and protector" of the data, Porter said. She pledged edX's support for the consortium, saying the MOOC provider "will enable anything that they want to have happen" to enable collaboration.

The consortium will showcase and distribute the content created by faculty members on an official website. As the collection grows, the website could become a repository for educational resources that faculty members at any of the four colleges could use in their courses.

The colleges are also putting out requests for proposals for faculty members interested in creating jointly taught courses, but they are still debating how best to do so. At the May 2015 meeting, a participant suggested the website could serve as a "dating site" where faculty members could post their interests

and find potential collaboration partners.

"Teaching is a very intimate thing," said Adam Van Arsdale, associate professor of anthropology at Wellesley. "When you're sharing a classroom space -- whether that be a physical or digital space -- it requires some degree of comfort and personal knowledge. One of those goals of this collaboration is to provide venues for those personal connections to be established."

The agreement signed by the four colleges only covers the creation of the consortium, and any expansion efforts -- such as hiring a data scientist -- will require new sets of agreements.

The consortium will also approach different grant-making foundations to secure funding to follow expenses paid for by a planning grant from the Andrew W. Mellon Foundation, Sellers said. ∎

# Brick by Brick

By Carl Straumsheim

Educause releases a blueprint for next-generation learning management systems, recommending a "Lego approach."

The next-generation learning management system shouldn't be a system at all, but a "digital learning environment" where individual components -- from grade books to analytics to support for competency-based education -- fit together like Lego bricks, a white paper recommends.

"The Next Generation Digital Learning Environment: A Report on Research," released in April 2015, advances Educause's initiative to examine how faculty members and students feel about their learning management systems and what they want from them in the future. The effort, which is funded by the Bill & Melinda Gates Foundation, is known as the Next Generation Digital Learning Environment Initiative.

Even though virtually all colleges and universities run some form of learning management system, many faculty members have a "love-hate relationship" with the software, Malcolm Brown, director of the Educause Learning Initiative, said in an interview. On the one hand, he pointed out, it's technology "you can't live without," but on the other, it's a source of frustration and impatience for many.

Educause hoped to consider whether existing learning management systems can support higher education at a time when many colleges and universities are experimenting with new forms of delivering courses and awarding credit. Instead of focusing on "incremental change," the researchers decided to articulate what a re-envisioning of the market would look like, Brown said.

The white paper combines Educause's own research with input from learning management system providers, accessibility and universal design experts, IT officials, university leaders, and others. Authors Malcolm Brown, Joanne Dehoney and Nancy Millichap then synthesized those opinions into one overarching recommendation: that commercial providers, open-source communities and individual developers settle on a set of specifications to make different software work together -- in other

words, the studs and cylinders that make Lego bricks interlock.

The specifications need to devote equal attention to five main points: interoperability, personalization, analytics, collaboration and accessibility. The first, interoperability, is described in the paper as the "linchpin" of the overall vision.

"We can't just have one big chunk of code that's going to do everything for everybody," Brown said. "Legos work because that specification is so clear and unambiguous. As long as you observe those specifications, you're going to snap together."

The specifications aim to improve both the user experience and the processes behind the scenes. As the Lego metaphor attempts to explain, interoperability means giving faculty members the freedom to piece together their preferred learning management systems without worrying if the tools they pick will be able to share data. That, in turn, would enable faculty members to use analytics to track student performance across a variety of software tools, the report reads.

The analytics piece is also an important element for the Gates Foundation, which has signaled its interest in improving the data collected from and reported about students.

The user-facing specifications, accessibility and personalization,

focus on giving all faculty members and students the opportunity to use and customize their learning management systems. It also means giving students the ability to set personal education goals, which Educause's research suggests would make them more likely to use their learning management system.

Finally, the report recommends learning management systems abandon the "walled garden" approach -- that "a course is either public or private." Instead,



the systems should let students move freely between public and private online spaces and capture collaborations no matter where on the internet they occur.

George Kroner, a software solutions professional at the University of Maryland University College, said the paper represents "advanced future thinking" about how the learning management system market can evolve.

"The biggest elephant in the room is that a lot of the systems that are used in higher ed are very course-centric in nature,"

Kroner said. "What we see is that probably is the biggest limiting factor of not just current-gen ed-tech products, but also the administrative systems that support them."

In the vision proposed by the white paper, faculty members would be less tied to courses, but also to the vendor their institution chooses. In fact, professors could connect an open-source calendar with analytics from D2L and videoconferencing from Blackboard.

While such a future may not sound immediately appealing to vendors, Kroner pointed out that learning management system providers in recent years have moved in that direction. For example, most systems now support interoperability standards, which enable developers to create software that works with all systems.

"Above all else, our vision of a next-generation learning experience is one where the needs and preferences of learners are placed directly at the center," Katie Blot, senior vice president of corporate strategy and industry relations at Blackboard, said in an email. "This means an environment that is not only personalized and collaborative, but also flexible, intuitive and driven by data to help learners -- and those who support them -- make good decisions along their educational pathways."

Colleges and universities are also exerting some pressure on vendors through procurement processes, Kroner said, a strategy that can be used to guide the market in the direction the paper recommends.

"The conversation is no longer about choosing the best LMS," said Kroner, a former Blackboard employee who served as a community expert for the paper. "It's about the best suite of technology to accomplish what your institution wants to do." ∎

# Small College, Big Online Partners

By Carl Straumsheim

**Champlain College continues to expand in the adult learner market, landing a high-profile partner with the federal government. Does it provide a model for small private colleges to succeed online?**

Champlain College is making a surprising play in the online adult learner market, slashing its private college tuition rates for corporate partners to compete for their employees' tuition assistance dollars.

The college landed a big-name partner in April 2015, securing a nonexclusive partnership with the U.S. Office of Personnel Management. The partnership means more than two million federal employees and their family members can take Champlain's online courses at reduced rates.

Champlain has purposely split itself in two. There is the college, a small campus of about 2,000 traditional-age students in Burlington, Vt., across the street from the University of Vermont. Then there is the online college, a certificate and degree provider for more than 1,000 working adults.

The split is most evident in how students pay for their education, as well as what they get for their money. At the physical college, undergraduate students in 2014-15 pay $37,436 for tuition (graduate students pay between $660 and $1,080 per credit hour) and take classes taught by full-time faculty. Online, students get a roughly 70 percent discount to study on their own time in courses directed by full-time faculty members but taught by "professional practitioners" who work as adjuncts.

Champlain is growing its online college through **truED**, a subscription model it launched about 18 months ago. While the college has offered online courses since 1996, truED targets corporations, nonprofits and government agencies with a low-risk proposal: a one-year renewable memorandum of understanding stating that partners will point their employees to Champlain and keep the college up-to-date on their talent development efforts. In comparison, many online education providers target individual learners with extensive (and expensive) marketing campaigns.

"If colleges and universities are going to thrive in the new economy, we have to break down the walls between industry and higher ed," Jayson Boyers, vice president of continuing profession-

Champlain College's ground campus in Burlington, Vt.

al studies, said in an interview. "This is Champlain College stepping forward saying, 'you can do this.'"

By effectively making its partners market Champlain to its employees, the college is able to cut down on the cost of acquiring students -- particularly direct marketing costs, Boyers said. Those savings allow Champlain to offer its programs at a steep discount. While a 70 percent cut sounds dramatic, the reduction means a bachelor or master's degree costs between $10,000 and $12,000, and a certificate about $3,000. The subscription fee ranges from $250 to $800 per month depending on how many courses a student takes.

Since Champlain is not partnering with an online enabler company, it does not have to share the tuition revenue.

For a small, private nonprofit college with only regional name recognition, deeply discounted tuition rates are a requirement to be able to compete with other online education providers, said Kenneth E. Hartman, a former president of Drexel University Online who now works as an analyst for the consulting firm Eduventures. While such discounts are "nothing new," he said, 70 percent qualifies as "above the norm" comparatively.

"What Champlain College is doing is a smart move because they're in a highly competitive environment -- particularly in the online undergraduate completion sector, where students are oftentimes looking for the best financial deal they can get," Hartman said. "If you're not a nationally renowned institution, you're going to have to look to these types of partnerships to do exactly what this college is doing."

**Corporate Alliances**

Since the launch of truED, Champlain has formed dozens of alliances with companies such as AT&T, Cigna and Ben & Jerry's. Its online enrollment is approaching 1,500. The college plans to grow the number of partners to 100 and its online student population to 5,000, Boyers said.

Yet it was Champlain's 57th partnership -- the U.S. Office of Personnel Management -- that caught the attention of many observers of the adult learner market. The college ==announced== the partnership in April 2014.

Boyers was coy about how Champlain picks its partners. The college created a list of potential partners based on where its programs and the companies' needs intersected and "began knocking on doors," he said. Champlain has yet to see a partner choose not to renew the one-year commitment, although many partners have not been truED members for a full year, said Boyers.

"We have a wheelhouse of where we feel like we can make a difference," Boyers said. "We're not the right partner for every company." The college has been approached by hospital systems interested in a master's degree in nursing, for example, but has rejected the offers. "That's not who we are," he said. "That's not a program that fits well with what we do."

The college's partnership with the federal government provides some insight into how Champlain approaches targets on its list. To convince the agency that the college was a good fit for federal employees, Champlain built its pitch around a recent ==report== from the U.S. Government Accountability Office, which found that the workforce faces "mission-critical skills gaps" in areas such as cybersecurity, human resource management and broadly in STEM fields.

"The schools we partner with must have a curriculum that addresses the current needs in governmentwide mission-critical occupations," the agency said in a statement. "Ultimately, these educational partnerships are a win-win for agencies and employees alike, because they close federal mission-critical skills gaps and help federal employees pursue higher education."

Champlain's partnership with AT&T, meanwhile, was more narrowly focused. "Our existing relationship with Champlain was created to specifically provide cybersecurity courses to our employees," a spokeswoman for the company said. "We were impressed with their cybersecurity curriculum and thought it would be an asset to our [development]

programs."

Champlain's partnership with the OPM is not an exclusive one -- a decision the agency said grants employees "freedom of choice." The University of Maryland University College partnered with the agency in 2014, charging students about $375 a credit -- a 25 percent discount on out-of-state tuition.

Neither institution expressed concern about competing for federal employees. "The federal workforce is more than two million strong, so there is certainly room for growth for UMUC and for Champlain," Robert Ludwig, a spokesman for UMUC, said in an email. UMUC so far has enrolled about 1,200 students, amassing savings of more than $765,000 in the first year, he added.

Boyers was also optimistic about Champlain's opportunities for enrollment growth, even though UMUC has decades of experience in the adult learner market and enrolls tens of thousands of students. "We don't have to be an exclusive partner," he said. "We will fill a need. The students who will benefit from us the most will find us." ∎

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# Online M.B.A. Reboot

By Carl Straumsheim

U of Southern California becomes the latest institution to launch an online M.B.A. program, joining what program directors describe as a market in an "experimental phase."

The University of Southern California's new online M.B.A. program is the latest entry in a renaissance for such degree offerings, a development program directors say has been made possible by advances in technology that connect students and professors online.

The USC Marshall School of Business will launch its program this fall, marking the first time the university has offered the degree at a distance. Students in the 21-month program, which is split into five semesters, will tackle one course of three to four topics at a time, covering much of the required readings and assignments at their own pace but checking in with classmates and professors during weekly live online sessions. Unlike programs at other universities, which include regular campus visits, USC's online students will only come to campus once.

USC's balance between asynchronous and synchronous content is the most recent attempt to find a ratio that works for an online M.B.A. With the announcement, the university joins institutions such as Carnegie Mellon University and the University of North Carolina at Chapel Hill, which in the past four years have begun to offer their selective M.B.A. programs online. Program directors at those universities say distance education and the technology to support that mode of delivery offer too many opportunities to justify simply recording a lecture and posting it online, but their opinions diverge on the importance of face-to-face meetings, the role of outside firms, pricing and pace, among other components.

"If we don't think that our job is to replicate the lecture experience but find a new and in some respects improved experience, what does that mean?" said John G. Matsusaka, Charles F. Sexton Chair in American Enterprise at USC. "We really believe there's a set of students out there who prefer to learn in this mode. Of course there are some student that are going to prefer the residential option. Our view isn't that one is better than the other."

Dan Bursch, program director of the online M.B.A. program at UNC, called USC's announcement a "validation." UNC launched its online M.B.A. program, MBA@UNC, in 2011, and in less than four years, its enrollment has grown from 19 to about 630 students.

Bursch said the Kenan-Flagler Business School at UNC views itself as one of the first -- if not the first -- school to use the terms "asynchronous" and "synchronous." In the years since MBA@UNC launched, Bursch said he has seen several universities "imitate and duplicate what we are trying to do."

The fading "stigma" surrounding the quality of online education is partly to thank for that development, Bursch said, but so are advances in technology -- particularly in videoconferencing. Many M.B.A. programs pride themselves on small cohorts and curricula that emphasize group work, so just a few seconds of lag would be a major interruption. Conversations about an online M.B.A. program at UNC began as early as 2005, Bursch said, but at that time, "the school said we weren't in a place where we felt that we could duplicate everything we do on campus."

With the introduction and refinement of software such as Adobe Connect, Google Hangouts and Skype, UNC returned to

the idea in 2010. "The ability to have live classes every week is really what set things in motion," Bursch said.

## Similar, but Different

Carnegie Mellon spent five years waiting for a similar break-through. The financial crisis left the university's business model for online M.B.A.s "more or less dead," said Robert T. Monroe, director of the part-time program there. The university's old program was entirely corporate sponsored, with companies paying more than $100,000 to set up clunky videoconferencing systems so professors could beam courses to their locations. As the economy tanked, partnering companies pulled out. In 2008, the business school killed the distance education program.

"Instead of scrambling to try to keep that one going, we decided to use that opportunity to take a step back and see how things had changed in the 20 years since we started it," Monroe said. "We saw there was an opportunity, but that it was going to be an individual opportunity."

Carnegie Mellon rebooted the program in 2013. Officially named the Tepper School Online Hybrid M.B.A. ("because we haven't been able to find the right word to describe it," Monroe said), the program splits course content about equally between asynchronous content, live online



A professor hosts a live online session with M.B.A. students.

sessions and intensive in-person conferences.

Each mini-semester, of which there are six a year, begins with a weekend in Pittsburgh or at Carnegie Mellon's locations in New York and Silicon Valley. During the following weeks, students work independently on course modules and attend a weekly 75-minute live online session.

"For us, the one-third, one-third, one-third breakdown of what was previously 100 percent live class works well," Monroe said. "We came up with a new model that we felt is as good as on-site and gives you a complete experience."

At 32 months, Carnegie Mellon's program takes longer to complete than USC's 21 or UNC's average of 27, and includes the most face-to-face content. Matsusaka, meanwhile, said USC's faculty members made a point of making as much of the con-

tent as possible available to students on their own time.

"If you're going to do this, you can't ask [students] to come to campus a lot," Matsusaka said. "I'm sure that's appealing to some, but our sense of the market is the typical person wants more flexibility."

UNC, in comparison, requires students to attend two "immersion weekends" on their way to completing the 66-credit program. The university has hosted the weekends both in the U.S. -- in Chapel Hill, San Francisco and New York -- and abroad -- in Mumbai and Johannesburg -- since the program launched.

Monroe said Carnegie Mellon's weekend sessions were created with the idea that students would be able to balance their careers, studies and family lives in mind. "It's very, very expensive for a student to leave work for two years to get an M.B.A. -- especially

> "...the **key** word is really '**accessibility**'"

from the more selective schools," Monroe said. "The ability to both go to a selective program and keep working is a big deal. That's going to be very appealing to a lot of people."

An M.B.A. from a selective university can easily cost more than $100,000. To stress the idea that its program is the same no matter the form of delivery, Carnegie Mellon charges all part-time students the same for tuition: about $120,000.

At UNC and USC, however, the online option comes with a discount. USC's online students will pay an estimated $88,502 for tuition, down from the residential program's $108,504. At UNC, out-of-state students in the residential full-time M.B.A. program pay $111,092 for tuition, while MBA@UNC drops the price to $96,733.

"We spent a lot of time trying to think about what's the perfect price," Matsusaka said. "What do we need people to know to feel we've been able to give them a USC degree, and what does that take? Clearly you don't want to go in and be the most expensive guy."

### Finding Students

USC has yet to enroll its first students in the online M.B.A. program, but officials there have an idea of whom the program may appeal to. The ideal student, Matsusaka said, graduated with a bachelor's degree in computer science and went to work for a company such as Google for five years. Now 30 to 34 years old and ready to climb the career ladder, the student realizes he or she needs to learn about accounting or leadership but sees the prospect of leaving work for more than two years as unacceptable, he said.

"It occurs to me there might be an untapped market of people who prefer this delivery," Matsusaka said. "Unless your eyes are closed, you have to realize that a lot of people live a lot of their lives and have a lot of meaningful experiences online."

Results from the first year and a half of cohorts at Carnegie Mellon show about 60 percent students come from an area within a few hundred miles of Pittsburgh, Monroe said. The West Coast is home to another concentration of students.

UNC's enrollment data is "pretty varied," Bursch said. Students in the program reside in 47 states and 35 countries, with most groups in major cities, but also in rural areas where students would have to travel far to the nearest program.

"When people and schools that want to do this talk about the online M.B.A., they use the word 'flexible' a lot," Bursch said. "However, to me, the key word is really 'accessibility.' Until 2011, if you wanted an M.B.A. from UNC, you had to pick up and move your family to Chapel Hill."

As the universities that offer online M.B.A. programs are able to market to students who live increasingly farther away from campus, they find both a larger pool of potential students and new competition. Marketing, the program directors said, will likely play an important role for programs to stand out in an increasingly crowded field.

Both UNC and USC have chosen to work with outside firms to

help with that task. USC picked **All Campus**, a firm specializing in online enrollment. UNC took the partnership a step further, partnering with the online "enabler" company 2U (then known as 2tor) to build the program. Bursch said the partnership let the business school spend its time on adapting the curriculum, outsourcing the technical aspect to the online enabler.

"We like to say we practice what we preach here at the business school," Bursch said. "When you partner with an expert in the field, you'll produce a better product."

The program directors said they expect more universities will launch online M.B.A. programs in the near future. All three described the market as being in an "experimental phase" that will remain unsettled for several years.

The institutions threatened by that development, Monroe suggested, may be those that place too much emphasis on location.

"If you're an M.B.A. program whose primary point of distinction is that you're physically located somewhere that makes it easy for students to get to, you're going to seriously have to think about what your differentiator is when there are a lot of good online options available," Monroe said.

On the other hand, he said, launching an online program is more of an "incremental step" than Carnegie Mellon had anticipated.

With email, lecture capture and learning management software already in place in the residential program, "We found we were already doing 70 percent of it." ∎

# MOOCs for (a Year's) Credit

By Carl Straumsheim

**Arizona State U, in partnership with edX, will award a freshman year's worth of academic credit through massive open online courses.**

Arizona State University, in partnership with edX, in fall 2015 will begin to offer credit-bearing massive open online courses at a fraction of the cost of either in-person or traditional online education.

ASU's faculty members will create about a dozen general-education MOOCs, the first of which -- an introductory astronomy course -- will launch this August. Anyone can register for and take the MOOCs for free, but those who pay a $45 fee to verify their identity can at the end of each course decide if they want to pay the university a separate, larger fee to earn academic credit for their work.

By fall 2016, ASU anticipates it will offer enough MOOCs so that students can complete their entire freshman year online through what edX and the university are calling the **Global Freshman Academy**.

After completing the courses, students can receive a transcript from ASU showing that they have earned enough credits at the university to transfer to a different program or institution as sophomores. Since the university stresses the MOOCs are just a new form of deliver-

ing courses it already offers, the transcripts won't specify which type of course -- in-person, online or massive online -- students enrolled in to earn the credit.

"What this does is it really opens up new pathways for all students, no matter where they are in the world," edX CEO Anant Agarwal said in an interview. "There are no admissions requirements -- no SAT scores, no GPAs, no recommendation letters."

Those students could be in high school, knocking out a handful of general-education requirements before setting foot on campus, Agarwal suggested. They could be future international students in the U.S. Or they could be students who considered going to a community college to complete core requirements but preferred taking the courses online.

Performing well in the Global Freshman Academy, Agarwal said, could be a gateway to a two- or four-year degree. "If a baseball team is able to see how a player will perform in the first innings of a professional baseball game, that is the ultimate test," he said. "You don't have to see how they perform in the minor leagues."

MOOCs have existed almost exclusively outside the credit hour since their major providers were founded in 2012. Video lectures, quizzes and other content initially made for MOOCs may have found their way into for-credit courses, but the full


Anant Agarwal

MOOCs themselves have merely complemented, not supplanted, traditional higher education, as some initial predictions envisioned. Many MOOC providers have therefore offered identity-verified certificates for a small fee to increase the perceived value of MOOCs to both learners and potential employers.

The closest example of a MOOC-powered degree program may be Udacity's partnership with the Georgia Institute of Technology on an affordable online master's degree in computer science. That program, however, is neither massive (the institute admitted 401 students in its first cohort) nor open (it uses the same admissions criteria as the face-to-face program).

The Arizona State announcement, Agarwal said, is edX's response to the two major points

of criticism that have dogged MOOCs: that the completion rates are too low, and that the courses mostly benefit learners who have already earned advanced degrees.

"In one fell swoop, we can address all these challenges," Agarwal said. He spoke of an "undercurrent" at edX -- that the MOOC provider is "truly not fulfilling [its] mission until we can break through to credit."

EdX is likely not the only provider of alternative credentials with that goal in mind. Lawmakers have recently increased their push for those providers to have pathways not only to accreditation, but also to federal financial aid.

Agarwal described the Global Freshman Academy as a next logical step for edX, which is discussing similar initiatives with other unnamed institutions. The MOOC provider began with individual courses taught by high-profile faculty members at elite universities, then, as its catalog grew, bundled those courses together into sequences known as XSeries.

"Learners are looking for more and more coherent bodies of learning that span larger and larger amounts of time," Agarwal said. Asked if edX planned to continue in that same direction, perhaps building on the Global Freshman Academy to offer full degrees through MOOCs, Agarw-

al laughed and again resorted to the baseball metaphor.

"We've just gotten to first base here, and now you're asking me about getting to home plate?" he said.

**ASU's Angle**

The Global Freshman Academy adds a third option for students who wish to enroll as freshmen at ASU. In addition to the roughly 10,000 freshmen who attend the university in person, ASU offers certificate and degree programs through its online arm, ASU Online, which enrolls about 13,000 students in total.

Philip Regier, university dean for educational initiatives, said the university is "not worried" that the Global Freshman Academy will result in empty lecture halls or abandoned online forums.

"People always worry about cannibalizing the current population of students," Regier said. "The way we're thinking about it is we're making the whole pie bigger. It's not as though the pie is a fixed size and we're taking larger and larger slices out of it."

The different modalities attract different kinds of students, Regier said. For example, nearly all ASU Online students come to the university with 25 or more credits already completed, meaning they are likely to have already taken courses equivalent to the general-education MOOCs. If it turns out many rising freshmen or ASU Online students choose to take the MOOCs, he said, the university will not discourage them from getting a head start on their studies.

"What we're trying to do is get people who would otherwise not have had access to freshman general-education studies, provide them with that access so they can go on to be successful and graduate," Regier said. "The end goal is graduating educated university students, which this country is increasingly dismal at doing."

ASU is at least undercutting itself on price. The university has agreed to charge students taking the MOOCs no more than $200 per credit hour. Students at ASU Online, in comparison, pay $480 to $543 per credit hour. In other words, earning credit through MOOCs may be less than half as expensive as a traditional online or in-person course.

ASU and edX have yet to finalize details of how they will share tuition revenue, although an eventual agreement may resemble the contracts the MOOC provider has signed with its other university partners. "I think it's 50-50," Regier said. "The split between ASU and edX won't be dissimilar to that."

Multiplied by tens of thousands of students, that's a lot of tuition revenue. ASU has begun to set some enrollment targets, Regier said, adding that "we would expect maybe 25,000 to enroll in some of the courses." The key question, however, is how many of those students choose to pay to verify their identity, and then how many of those go on to pay for credit, he said.

"There are a lot of uncertainties here," Regier said. "Do we know what the answer is? No."

**'Same in All Essential Respects'**

Another unanswered question is how to build a course that effectively evaluates tens of thousands of students at the same time. Mastery in some courses -- math, for example -- is easier to track through multiple-choice tests or automated grading, but those tools won't necessarily work in a freshman composition class.

"When you have 50,000 students versus 50 students, the methods of evaluation and the methods of assessment will change, but we will have both formative assessments and summative assessments at the end of the course," Regier said. "We haven't figured out what we're going to do in every course yet, and we know every course is going to be different."

The challenges each planned course present explain ASU's road map for the Global Freshman Academy. After the first course launches in August, the university has committed to introducing two new courses each in October, January, March and next summer, Regier said. Freshman composition will probably be one of the last to launch. Right now, he said, the university is planning on having "actual people" grade however many thousands of student essays such a MOOC would produce.

Generally speaking, Regier said,

each course will last seven and a half weeks and will be led by a "master teacher" working with a team of university teaching assistants, who will be responsible for answering student questions.

"What we aren't going to do is put a course online that is an automaton -- in other words, when the student engages with the course, there's no interaction, no chance to have a question answered by a human," Regier said. "Technology has made us more efficient at delivering courses, but there's still a need for human interaction, and that won't go away because we're offering an open online course."

The prospect of one professor teaching tens of thousands of students, however, drew criticism from the Randi Weingarten, president of the American Federation of Teachers.

"Massive open online courses can't provide that same invaluable relationship students and faculty develop over time and the flexibility in instruction needed to help all students achieve success," Weingarten said in a statement. "There's no substitute for the educational and personal development students undergo in their first two years in college. This plan mistakes convenience and profits for quality and engagement and in doing so, ignores students' individual learning needs and stunts this growth."

Carol Geary Schneider, president of the Association of American Colleges and Universities, said the assignments that ASU faculty members create may serve as an indicator of the quality of the MOOCs.

"Ill-designed general-education programs invite students to get general education out of the way as quickly and as cheaply as possible," Schneider said in an interview. "The message to students is none of this really matters -- get past this and work on your major."

In many MOOCs, students watch a brief video, complete a quick assignment and repeat, and the courses feature little interaction beyond a discussion forum. Schneider recommended a more "hands-on" approach that ties course objectives to qualities, such as critical thinking and problem solving, that are required in upper-level courses and future careers.

"The fact that it's a MOOC does not automatically disqualify it, but… it does suggest it is aiming at huge participation levels, which raises the question of how exactly students will be doing those hands-on, problem-centered assignments through which they would have the opportunity to practice and develop the skills they would need for their lives beyond college," Schneider said.

Blueprints for many of the MOOCs already exist in courses

offered through ASU Online, but also in the courses taught face-to-face, Regier said. While the assignments and methods of evaluation may differ, he said, the courses -- no matter the mode of delivery -- will be "the same in all essential respects." As a result, the university does not "anticipate any issues" concerning accreditation.

"All this is, is a different modality to receive the same kind of competencies," he added. The Western civilizations course launching in the fall, for example, will be a new method of delivering HST 102, currently offered in-person and through ASU Online.

Justin Reich, the Richard L. Menschel HarvardX Research Fellow at Harvard University, said the Global Freshman Academy could potentially boost MOOC enrollments and cut costs for students if used as a dual enrollment option.

"If someone can find a way to attach college credit to a MOOC, and that credit is widely accepted at other institutions, then that could certainly accelerate enrollment in credit-bearing MOOCs," Reich said in an email. "It also might make issues of participant identity validity and cheating come to the surface quickly."

In addition to ASU Online, Regier pointed to the ==partnership with Starbucks== as an example of how the university has worked its way up to being able to offer credit-bearing courses to massive audiences.

"It's just like bodybuilding," Regier said. "If you go out and try to bench-press 250 pounds on your first day, you're going to have a problem, but you can develop your capacity to do that over time." ∎

# Online Penalty

By Scott Jaschik

Large study of California community college students finds that they are more likely to succeed in in-person courses.

Many politicians and educators see online education as key to expanding access to higher education. But a large study of online education used by students at California's massive community college system cautions that student success may not go hand-in-hand with online education.

On many measures of student success, the study found, online students are not doing as well as those who enroll in face-to-face courses. The study, released at the 2015 annual meeting of the American Educational Research Association, is by Cassandra M. D. Hart, Elizabeth Friedmann and Michael Hill, all of the University of California at Davis.

The authors acknowledge that comparing student success is difficult based on transcripts alone. In an ideal world (at least from an educational researcher's perspective), students of equal ability would be randomly assigned to identical face-to-face or online courses taught in similar ways.

Since researchers can't do that to California community college students, they compared success by looking at students' performance in courses from 2008-9 through 2011-12 offered at the same community college in both face-to-face and digital formats.
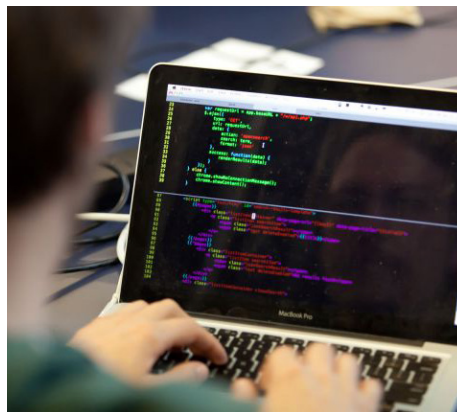
To avoid atypical students, the

researchers excluded those who already have an associate or other degree, and those in dual enrollment programs with high schools.

The researchers also excluded physical education and fine arts courses, and those offered for fewer than one or more than five credits. Even with those limitations, the California system is large enough that the researchers were able to study results from 217,000 unique students.

From that sample, the researchers found online students lagging behind face-to-face students in three critical areas:

- Completing courses (regardless of grade).
- Completing courses with passing grades.
- Completing courses with grades of A or B.

The results were the same across subject matters, courses of different types and different groups of students. Larger gaps were found in some areas, such as summer courses and courses taken by relatively small numbers of online students. But no patterns could be found where students online performed better than those in face-to-face courses.

The researchers note that there may be some questions about how broadly their findings can be applied. Other states may have community college systems (or other higher education systems) with better or worse online offerings, and more or less student support. And the nature of online education continues to evolve. But the researchers also note that California has placed a priority on online education, has a diverse system of community colleges and has a huge student population.

Even with the caveats they note, they write that their findings should be a caution for many. "Our results also have implications for student support in online classes," they write.

"Faculty members teaching online should be aware of the performance penalty associated with taking courses online and consider implementing course policies and practices that would allow them to detect student disengagement in the absence of the physical cues that FtF [face-to-face] instructors can rely on.

Students should be made aware that success rates are systematically lower in online than in FtF sections so that they can make informed enrollment decisions, and should be introduced to study strategies and time management strategies that promote success in online formats."

In terms of policy, the researchers write: "Policy makers in California and other states are interested in exploring whether online courses can be used to expand student and improve outcomes. The results suggest that there may be costs to this strategy, although formal cost-benefit analyses should explore whether the greater likelihood of course non-completion or failure offsets the possible cost savings associated with online courses." ∎

# In Due Time

By Carl Straumsheim

Apart from cases such as Oral Roberts U.'s smartwatch pilot, experiments with the "internet of things" are still years away at most colleges and universities --
but questions about privacy and cheating remain.

Online students at Oral Roberts University have a new item to add to their college shopping lists: a smartwatch.

O.R.U. is one of few institutions piloting wearable technology this spring, requiring all new online students to purchase a smartwatch. The experiment, which began in January 2015, initially seeks to extend the university's belief in the importance of physical fitness to online students, but may later in 2015 give researchers insight into student motivation.

The university has another reason for testing whether students benefit from wearable technology. The rapid pace of technological change means that regardless of the institution's interest in fitness bands, students will soon be showing up to campus wearing those and other devices strapped to their wrists.

"If you have a piece of technology that remains separate from the entire learning process, there's a higher probability that it remains a fad that comes and goes," said Kathaleen Reid-Martinez, O.R.U.'s provost. "If we do not begin to experiment with these wearable technologies in natural areas, I don't think we'll be able to harness the technology for the learners of the future."

Wearable technology is one part of the larger concept known as the "internet of things," or I.o.T. for short. That idea, which Goldman Sachs has called "the third wave of the internet," envisions a future in which devices from watches to insoles to coffee makers can connect to the web, collecting and combining data from users' interactions with them to personalize their functions.

The prospect of a constant stream of student behavioral data also presents a tantalizing opportunity for researchers who see the internet of things as a means to personalize learning. These days, however, most of the interest in wearable technology concerns smartwatches and fitness bands -- especially with Apple's foray into the market -- but academics have found limit-ed uses for augmented reality as well, particularly in medicine.

O.R.U. is also using fitness to explore wearable technology. The university requires that on-campus students show "satisfactory health and physical education progress." When it recently expanded its online degree offerings, academic leaders decided to extend that policy to online students.

"One of the things we know is that online learners suffer physically by taking online classes -- 'suffer' meaning more back pain, neck pain and so forth," said Michael Mathews, the university's chief information officer. In addition to tracking physical activity, the smartwatch used for the pilot, the Garmin Vivofit, can also notify students to get up and move after long periods of sitting still, he said.

The university collects the data through an online portal, where students can share their fitness goals and progress. New online students start every eight weeks at O.R.U., meaning that the university will steadily grow its fitness data collection program during the spring. By the fall, said Sergio Matviuk, dean of online and lifelong learning, researchers will analyze the data to see if the smartwatch motivated them to exercise more.

D2L (formerly Desire2Learn), the university's learning manage-

ment system provider, also sees an opportunity in the internet of things.

"As I.o.T. gains hold it will enable an even greater amount of teaching and learning data to be captured, expanding the possibilities for analyzing and improving education," C.E.O. John Baker said in an email. "Any device or structure related to education could be internet-enabled, meaning the IoT could measure time students spend on studying, reading a book, or attending class. The possibilities are endless."

On-campus students at O.R.U. still use a paper log to document their physical activity, but the university is moving toward electronic data collection, Reid-Martinez said. And while the pilot uses a specific device, the university I.T. office is working to make sure students can use whatever smartwatch or fitness band they normally wear.

"We'd all like to be through the gate, figuring out what works, what doesn't work," Reid-Martinez said. "If we tie that technology to our vision, mission and values -- when we see those aligning -- we want to be all over it."

### 'B.Y.O.D. on Steroids'

Most campus I.T. leaders have not placed the internet of things at the top of their agendas for 2015. Both the 2014 ==Campus Computing Project survey== and

Educause's ==annual list of Top 10 I.T. Issues== found I.T. leaders emphasizing hiring and training, with the internet of things only registering as one of many developing technologies survey respondents said they were keeping an eye on.

A separate ==report== by Educause and the New Media Consortium corroborates those findings. The "adoption horizon" for wearable technology is two to three years away, the report reads, and four to five years away for the internet of things.

Those timelines echo what Michael D. Abbiatti, vice president for educational technologies for the Western Interstate Commission for Higher Education, or WICHE, said he has heard from the colleges and universities the organization works with. Yet the higher education sector's lack of planning for the influx of devices that connect to the internet, he

said, makes it "one of the most vulnerable business sectors" in the country.

"I think one of the most interesting challenges with I.o.T. and wearable tech is the fact that people generally don't realize that it's here today," Abbiatti said. "We're getting I.P.-connected students showing up on our campuses with I.P.-enabled cars wearing I.P.-enabled tech carrying six, seven I.P.-enabled devices."

Abbiatti also serves as the executive director of the WICHE Cooperative for Educational Technologies, which helps member institutions improve their online educational offerings.

I.T. staffers are already familiar with the fact that students are ==bringing more and more wireless devices== with them to college, bogging down campus networks and potentially creating security risks in the process. Some insti-

tutions, like ==Temple University==, have embraced the "bring your own device" trend, creating data policies that protect sensitive information regardless of the device used to access it.

The internet of things, Abbiatti said, is "B.Y.O.D. on steroids, if you will."

Yet questions surrounding privacy and security -- not to mention cost -- may be preventing more colleges and universities from experimenting, Abbiatti said.

Indeed, other institutions have so far taken a more restrictive approach to wearable technology. City University London recently ==banned== all watches -- not just those with the smart- prefix -- from exams because of the cheating potential in smartwatches. Watches are now treated like cell phones, according to a university spokeswoman. Before the exam begins, she said, students are required to remove phones and watches and place them under their desks.

Students have not objected to the new ==policy==, the spokeswoman said, noting that "a number of universities" have since adopted similar watch bans.

"Last year, colleagues and invigilators [proctors] raised the issue of how we would identify a smartwatch in an examination setting," the spokeswoman said in an email. "In large exam venues, with over 100 students, it simply wouldn't be practical to ask invigilators to check each watch." ∎

# Blogs, Essays or Both?

## By Carl Straumsheim

**U. of Michigan researcher finds that different formats for assignments result in notably different qualities of writing.**

Asking students to blog for an audience of their classmates instead of writing an essay for a professor can bring out different qualities in their writing, according to a study published in the April 2015 volume of *Teaching Sociology*. But don't expect instructors to do away with essays just yet.

"One general conclusion one can draw from these findings is that journals and blogs each have their own strengths in terms of their ability to engage students in deep reflection," author Drew Foster writes. "Specifically, students appear to be overall more likely to take greater intellectual risks in blogs, which they know will be read and commented upon by their peers. Conversely, journals -- the more private option -- compel students to be vul-nerable and take more personal risks in their reflection."

Journaling has long been a common course requirement in the humanities, especially in courses heavy on reading assignments. Requiring students to reflect on assigned texts -- either for the students' own benefit or to ensure that they actually did their homework -- gives instructors another method of helping students retain the knowledge.

Blogging is a "natural extension of class journals in the digital age," Foster, a doctoral candidate in sociology at the University of Michigan, writes. He launched the study after getting a chance to teach the university's Introduction to Sociology course during a

summer session. Unlike previous sections, he experimented with assigning blogging, not private journaling, and came away impressed by the quality of the student writing.

"Maybe students are writing more high-quality stuff when they're writing in this kind of open format and they know their peers are going to be reading their stuff?" Foster said in an interview.

The fall 2013 and winter 2014 sections of the course both included a reflection assignment worth 10 percent of the final grade. But while students in the fall section wrote nine journal entries viewable only to teaching assistants, those in the winter

Drew Foster

section wrote six blog posts and commented at least nine times on other students' posts.

Apart from the reflection assignment medium, the two large lecture courses, which both enrolled 225 mostly first- and second-year students, were "nearly identical." Students in each sec-

tion were split into 9 discussion groups of 25 students each, and students could only view the blog posts of fellow group members.

Tasked with sifting through 1,049 journal entries and 1,021 blog posts, Foster and three undergraduate research assistants tracked eight "traits" of reflective writing, many of them developed from a 2004 report written by the American Sociological Association's task force on the undergraduate major.

Specifically, the researchers looked for students to compare two or more readings, explain a personally held misconception, take a position on an issue, form a personal theory, link readings to a personal experience,

**Table 1.** Comparative Content Analysis of Reflective Journal Entries and Blog Posts.

| Variable | Journal entries | | Blog posts | | |
| | n = 1,049 | | n = 1,021 | | |
| | Raw score | % | Raw score | % | Significance level |
|---|---|---|---|---|---|
| Compared two or more readings | 355 | 33.8 | 247 | 24.2 | p < .01 |
| Explained a misconception they held | 39 | 3.7 | 16 | 1.6 | p < .01 |
| Took a position on an issue | 78 | 7.4 | 145 | 14.2 | p < .01 |
| Formed a personal theory | 102 | 9.7 | 127 | 12.6 | p < .05 |
| Linked material to a personal experience | 349 | 33.2 | 276 | 27.0 | p < .01 |
| Discussed author's race, class, or gender | 111 | 10.6 | 111 | 10.9 | ns |
| Included an online source | 61 | 5.8 | 56 | 5.5 | ns |
| Made more than three grammatical/mechanical mistakes | 111 | 10.6 | 78 | 7.5 | p < .05 |

discuss their own class, gender or race, or reference an outside source. Foster also counted the instances where students made three or more grammatical errors, hypothesizing that bloggers -- whose entries could be seen by other students -- would be more careful not to make subject-verb agreement mistakes, switch tenses or write run-on sentences, among other errors. The study confirmed Foster's hypothesis -- journal entries were 3 percent more likely to contain three or more mistakes -- as well as his suspicion that students required to blog would want to "show off to their friends."

The results from journal and blog entries diverged on five of the eight traits, not including the one about grammatical mistakes. Students posting on blogs were more likely to take a stand on an issue or come up with a personal theory than those writing in journals, but less likely to admit to a personal misconception, connect a reading to a personal experience or compare two or more readings.

In other words, some journal entries trended toward the "particularly private and intimate," while blogging "potentially opens the author up to attack and critique." Meanwhile, the "specter of peer readership" causes bloggers to be more aware of grammatical and mechanical rules, Foster writes.

To Foster's surprise, however, blogging did not cause more students to reference outside sources, even though copying and pasting a hyperlink is less complicated than penning a manual citation. Students in both sections were about equally as likely to bring up their own class, gender or race in their entries.

Those findings could extend beyond introductory courses, said Foster. He suggested future studies could, for example, look at whether students in large online courses are less comfortable with making the kinds of personal risks that they would in a class where they know their peers.

The findings likely also mean that instructors won't rush to replace essays with blogs, but that they should consider tailoring assignments to produce the kind of writing they are looking for.

"Where I thought that either traditional essays or blogs were going to get objectively better writing out of students, in actuality, it turns out it's about these types of risks," Foster said. "Institutions should be cognizant of the format that students are writing in and try to link up the kind of risks they want students to be taking in their writing." ∎

# Moving Ahead With Competency

By Paul Fain

Eight Washington State community colleges will offer an online, competency-based business degree, as emerging form of higher education wins fans -- and some critics -- in the state.

The online, competency-based certificate Bellevue College offered in 2014 was a hit with students. In fact, the certificate in business software was so popular that the two-year college in Washington State decided to drop its conventional online version.

"The train has left the station at Bellevue," said Suzanne Marks,

a faculty member who teaches business technology systems and is the program's chair. "We went from pilot to permanent, immediately."

The **certificate** was part of phase one of an experiment by a handful of Washington's 34 community and technical colleges. The next phase, which began in January 2015, is the creation of a fully online, competency-based associate degree in business.

The degree will be a transfer credential, meaning students should be able to move easily to four-year institutions. The courses will feature only free and open content. And Lumen Learning, an Oregon-based company, is **designing** the material to be adaptive, meaning it will respond to each student's prior knowledge.

Competency will replace grades in the degree track, with the equivalent of a B being the minimum mark students must meet.

"They keep trying until they're done," said Connie Broughton, who works at the Washington State Board for Technical and Community Colleges and directs the project.

Columbia Basin College, which is the system's lead institution for the business degree, received approval from its regional accreditor for the program. It has **begun marketing** the degree, which, although linked to the credit-hour


COURTESY: BELLEVUE COLLEGE

standard, includes elements of self-pacing. The program will also feature assessments that students can take and pass without completing course material.

Seven other two-year colleges in Washington, including Bellevue, plan to sign on and begin offering the competency-based associate degree later this year, according to Broughton.

A key reason for the degree's creation was research showing that there are 1 million people in the state with some college credits and no degree. Broughton said many of those people need a flexible form of higher education to go back and earn their degree.

"We saw that we need to serve learners who are not with us now," she said. "The goal is, eventually, every college can do this."

Washington's two-year colleges have joined more than 200 other institutions around the country that are giving competency-based education a whirl. However, some faculty groups at the Washington colleges have criticized the move. They said the competency-based credentials were created without adequate faculty input, and that the programs will create more work for faculty members.

Karen Strickland, president of the American Federation of Teachers of Washington, a faculty union, said administrators have not always acknowledged the new responsibilities competency-based credentials create for instructors. She also said faculty members were concerned about how the programs "disaggregate" the faculty role. They break apart the degree track with a canned curriculum and modu-

larized course content, she said, which can be offered by a different college than the one where instructors work.

"It's a generic degree from another college," said Strickland. "What we oppose is corporatization of the learning process."

## Tapping Expertise

The project in Washington began with a hand from Western Governors University, a pioneer in competency-based learning. The nonprofit university in 2013 began working with 11 community colleges in 5 states -- including the 4 in Washington -- to help those institutions design their own competency-based credentials in information technology. The Bill and Melinda Gates Foundation and the U.S. Department of Labor chipped in funding for the project.

WGU ran workshops in those five states to expose faculty members and administrators to the emerging form of higher education. Attendees in Washington ranged from vice presidents to online instructors and registrars.

The sessions "started to get the idea of competency-based education into the cultural soup," said Rich Cummins, president of Columbia Basin College.

Soon four colleges in the state began offering short-term, competency-based certificates in business and I.T. As part of those programs, students take a pretest at the beginning of each course to identify their strengths and weaknesses. They can use those results to move faster through material they understand, earning credits when instructors deem them competent.

The competency-based courses feature both course instructors and a navigator for students, who serves as a sort of advisor, providing support and helping them to select course sequences.

Three days into offering the certificate, Bellevue had enrolled 104 students in the program, said Marks. Another 107 or so enrolled during the second quarter.

"Students voted with their feet," she said. In particular, Marks said students like the self-pacing, the flexible due dates for work and the program's "high-tech, high-touch" approach.

Faculty members had to do a lot of work up front to create the programs. Mapping course competencies in particular is laborious, said Marks. But there was a payoff for instructors as well as students, she said. "It makes you pay more attention to instructional design, your outcomes and your assessments."

Other faculty members at Bellevue were less enthusiastic. And some have expressed concern about the college's attempt to join the Columbia Basin pilot group. Several signed a letter expressing concern about who is overseeing quality control for the degree.

"It will be taught by non-Bellevue College faculty, developed by non-Bellevue College faculty and with assessments formulated by a third party, Lumen Learning," the faculty members wrote. "Should Bellevue College lend its name to this degree?"

## Self-Paced Model

The eight participating colleges in the consortium contributed a total of $1.4 million for the creation of the online transfer degree. The costs went toward the hiring of four full-time faculty members, who will oversee the business core of the program. Columbia Basin also hired six part-time faculty members to run the general education side of the degree track.

Cummins said the program will need about 400 students to break even. Other colleges can then join by creating their own online portals for the degree track, which should be fairly simple.

"We don't believe it's going to fail," he said.

A key innovation of the program, said Cummins and others, is that students will be able to begin when they like during the first three months of each term. They must enroll full-time for the second chunk of three months.

Tuition is a $2,667 flat fee per six-month term. There is a $40 assessment fee. The program includes 18 courses, all competency based and online. Students must earn at least 20 credits per term, but can earn more at no cost. Cummins called this an "all you can eat" model.

Columbia Basin's role is about social mobility, he said. And the competency-based degree will allow "distant students to move at their own speed as well as their own time and place while ensuring a greater level of rigor across distance learning offerings." ∎

# A Flexible Future

By Carl Straumsheim

**Elite research universities, which have been leaders in exporting modular courses and resources to other colleges, are considering using them at their own campuses.**

Some of the country's most rigorous research universities have a new obsession: flexibility. As the institutions contemplate a more modular future, experiments with blended learning may provide an early glimpse at their plans.

Through strategic visions and partnerships, institutions such as Duke and Harvard Universities and the Georgia and Massachusetts Institutes of Technology are laying the groundwork for curriculums that will be delivered through a combination of face-to-face instruction, blended courses and distance education. A common goal is to offer students "flexibility" -- a word several administrators used to summarize their institutions' aspirations.

The word has many definitions. For one institution, flexibility means giving students the freedom to race through core concepts on their own schedule, freeing up face-to-face time for more in-depth work; for another, it means giving students the opportunity to continue their studies whether they are on campus or not -- and beyond graduation.

Many of the universities exploring these options were leaders of the movement to create massive open online courses or open course materials that could be used to teach students at institutions other than their own. Now these universities are exploring how they can become more flexible to find multiple uses for the same content, including teaching their own students.

Regardless of the definition, flexibility has much in common with MIT's plans to "modularize" education -- breaking courses down into smaller modules that can be taken on their own or shuffled and rearranged into a more personalized experience. In a preliminary report released in 2013, MIT toyed with the idea of "unbundling education and blurring boundaries" -- combining distance and in-person instruction to the point where students could one day spend as little as two years on campus.

"Achieving [those goals] will require a commitment to adopting new models of blended learning -- again emphasizing the flexibility to use different pedagogies in different settings -- and an investment in a diverse and flexible range of spaces that cater to

different formats of learning," the report reads.

"I would be surprised if elite schools didn't move somewhat in that direction," said Lynne O'Brien, associate vice provost for digital and online initiatives at Duke. "Once one or two schools set forth in that space, others will follow."

**Aspirations and Experiments**

MIT's plans are part of "everybody's thought processes," said Nelson C. Baker, dean of professional education at Georgia Tech, who joked that MIT may have peeked at his institution's own strategic plan.

"The most exciting thing in the last couple of years is the changing landscape ... of how research universities are talking about pedagogy and learning as a fundamental core tenet of the university," Baker said. "If technology, if distance, if online had some role to change that conversation, home run."

Georgia Tech's ideas include creating a "continuum of learning," Baker said. In the future, graduates of the university may be able to return for "short bursts" to apply new concepts to the degrees they earned years or decades ago.

Exactly how graduates would return and for how long is still up in the air -- which is why Baker described the idea as an "aspiration" rather than a plan.

Peter K. Bol

Administrators at the other institutions also qualified their remarks with similar disclaimers, offering visions of the future of their universities, then pulling back to say those visions are still "conversations" or "ideas." Their restraint reflects the fact that many of the universities' experiments are still in their infancy. Of all the courses Georgia Tech offers, for example, only a "small percentage" are run as blended courses, Baker said.

For now, the universities are encouraging their faculty members to experiment with course delivery methods and materials to see which projects pan out.

Harvard, for example, has 47 projects (including some reruns of massive open online courses and content available on demand) planned to run in the 2014-15 academic year, said Peter K. Bol, the university's vice provost for advances in learning. In November 2014, the university approved yet another experiment: The popular computer

science course CS50 will next fall be streamed to Yale University, where students will be able to take a version of the course for credit. As expected, the announcement has drawn plenty of snarky remarks about the universities' rivalry.

Of the various experiments in the works, Bol rated modularization as the most important, and said HarvardX, the university's branch of the MOOC provider edX, plays an "important role" in that initiative. The 2013-14 academic year marked the first time instructors used content created for MOOCs in blended courses on campus, and students generally thought those courses were of higher quality than traditional courses, he said.

"This will become ever more a part of lecturing," Bol said, though he, too, described the plans as a work in progress. "We're a couple of years out, but we're on the right path."

Duke is doing similar experiments with Coursera. The university was an early partner of the massive open online course provider, and its faculty members have since 2012 produced dozens of MOOCs -- including by some who have voiced their skepticism about the platform. O'Brien said faculty members have taken advantage of the partnership to create courses without having to worry about federal regulations governing

financial aid or awarding students academic credit.

"Given that freedom, faculty have started saying, 'My 14-week course would be better as three four-week courses,' " O'Brien said. "Should there be some [courses] that are broken in half so students can take the half they need? Maybe some of them can do a quick course on the most critical content, but then do a much more in-depth experience with mentored research or a lab or service learning -- the kind of thing you can really only do on campus and face-to-face."

She added, "We've already seen people do those sorts of experiments with flexibility, and so we're having a conversation now about whether there should be more actual options within the curriculum for people to learn things at different speeds or with different blends of courses."

O'Brien said the interest in online education has come a long way since Duke faculty members in 2013 voted to pull out of 2U's Semester Online consortium -- in part over granting students academic credit for fully online

Nelson Baker

courses.

"I think we're in a different place than we were before," O'Brien said. "We don't have a lot of concrete curricular changes yet -- it's more a sense that these conversations are underway."

**Blended, Not Distance**

While Duke, Harvard, Georgia Tech and MIT are all exploring modularization and blended learning, the former two are so far more hesitant about fully online education. Bol said there are faculty members at Harvard talking about distance education, but that there is "no interest" in reducing the time students spend on campus.

For the past two summers,

Duke has offered a handful of fully online courses, mostly targeting students who physically could not be on campus. Asked if the university had plans to expand those course offerings to the fall and spring semesters, O'Brien said she believed the faculty would likely vote against such a proposal.

"Our faculty control the curriculum, they control the classroom, and they're going to make decisions about how they want to teach," O'Brien said. "That's not going to change."

Baker, however, said many students are doing so voluntarily, even though their universities aren't endorsing the idea. Many freshmen arrive with enough college credit to nearly be considered sophomores, he said, and about 40 percent of Georgia Tech's students enroll in an international program.

"The truth of the matter is we're approaching it if we view it through those lenses," Baker said. "If we were to really look at the data of what residential students are doing, we may be closer than we realize to already being in those kinds of roles." ∎

# Southern Blend

By Carl Straumsheim

Can a group of liberal arts colleges in the South -- institutions that value personal interaction -- win over faculty members on blended learning?

After three years of experimenting with blended learning, leaders of the Associated Colleges of the South feel a movement is growing, but they aren't sure if the push will last.

The **association**, which consists of 16 liberal arts institutions across 12 Southern states, made blended learning one of its formal programs in the fall of 2011. With support from the Andrew W. Mellon, Robert W. Woodruff and Teagle Foundations, the program has awarded more than $200,000 over the last three years to fund 42 experiments that include flipped classrooms, digital humanities and content from massive open online courses.

The association's goal, as outlined in a set of upcoming reports, is to create a different kind of model for blended learning -- defined as "computer-mediated instruction that is combined with the interpersonal and interactive pedagogy that distinguishes the ACS institutions."

In simpler terms, that means a form of blended learning that won't alienate faculty members who value the defining characteristics of a liberal arts college -- not just the curriculum, but the close student-faculty interaction. While larger universities may pursue blended learning to reduce classroom time, that same idea would be considered anathema at many of the association's member institutions.

"We're taking an approach that enhances what we do best, and certainly what we do best are those connections between faculty and students," said Melanie L. Styers, assistant professor of biology at Birmingham-Southern College. "We like the small classroom... and we're trying to use blended learning to build on that by engaging our students in even more ways -- as opposed to taking away from how we engage students."

In a progress report to the Teagle Foundation, the association is frank about the challenges of convincing faculty members that blended learning can work well at liberal arts colleges.

"[M]any faculty regard blended learning with suspicion or even outright distaste," the report reads. "Yet if blended learning can be described in terms of successful projects that illustrate the ways in which technology can enrich the learning experience and increase what students learn, most faculty members quickly become enthusiastic and thoughtful participants in the conversation."

Compared to the association's other initiatives, including programs on diversity, gender studies and sustainability, among others, it is "probably fair to say" that blended learning has been a tougher sell, said Amanda Hagood, who directs the program.

"You really need to get faculty talking to other faculty, and you need for some faculty to demonstrate the viability -- even the kind of richness -- that can be introduced when you bring technology into the classroom," Hagood said in an interview. "We can repeat it all day long and cite studies and so on, but unless faculty are hearing it from other faculty, I'm not sure if the leap of faith is going to be made."

As the program moves beyond its experimental phase, the association is ramping up its communication efforts to encourage more faculty members to apply.

The Teagle report, for example, includes blurbs from faculty members who received grants

Students at Rollins College attend a blended course in advanced Chinese.

during the 2012-2013 academic year, whose projects range from well-intended but flawed to promising. On one hand, a math instructor at Trinity University in Texas used online grading in calculus courses and saw improved student performance, while on the other hand, faculty members at Birmingham-Southern College used games and simulations in an interim-term course, though "not all of these experiments were completely successful."

"At least for this phase of our program, experimentation has really been the name of the game," Hagood said. "We wanted to put resources into the hands of our faculty and staff, let them try things and report back to us. Where we'll be heading next will probably be in the direction of assessment."

The report also mentions "a noticeable shift in the caliber and quantity of projects proposed," including a move toward more cooperation between faculty members at different institutions. The association has to some extent sought to promote such behavior, awarding larger grants to projects that involve collaboration between two or more institutions.

Flipping the classroom has been an early favorite among faculty members, including for Maha Zewail-Foote, professor of chemistry at Southwestern University, who flipped her general chemistry course.

"I can't go back to the way it used to be," Zewail-Foote said. "I can't just stand in front of a class and talk to them for 50 minutes.

Once you do this, you're like 'Oh my gosh, all my classes have to change!' "

Zewail-Foote used part of her grant to hire a student to explore the apps needed to flip the classroom, which presents one of the constraints of blended learning at small liberal arts colleges: limited support structures.

Birmingham-Southern, for example, is looking to increase its number of instructional technologists. The college now has one.

"We are finding that, for many of these projects, you do need a very consistent level of IT support that may drop off in future years," Hagood said. The association is attempting to address that issue by funding workshops and working with chief information officers, she said.

The association is also encouraging faculty members to form teams with IT staffers and librarians -- at their own institutions and across the consortium -- to assist one another.

"These rich, collaborative project-based 'teams' can make truly amazing teaching work possible and are particularly well suited for the liberal arts environment," Hagood writes in an introduction to the case studies, which she shared with Inside Higher Ed. "Looking for ways to sustain these fruitful exchanges is particularly challenging and particularly important, and will likely become more so in future years."

To raise awareness about the next round of grants, the association will share its results with the wider liberal arts community through a set of case studies published in partnership with the **National Institute for Technology in Liberal Education**. NITLE will publish about 15 case studies on its website, and the association will package six of them in print. ∎