MOOCs take higher ed by storm

In less than a year, 'massive open online courses' have altered the higher-education landscape. Now, where do they go from here?

From wire service reports

In 15 years of teaching, University of Pennsylvania classicist Peter Struck has guided perhaps a few hundred students annually in his classes on Greek and Roman mythology through the works of Homer, Sophocles, Aeschylus, and others—"the oldest strands of our cultural DNA."

But if you gathered all of those tuition-paying, in-person students together, the group would pale in size compared with the 54,000 from around the world who, last fall alone, took his class online for free—a "Massive Open Online Course," or MOOC, offered through a company called Coursera.

Reaching that broader audience of eager learners—seeing students in Brazil and Thailand wrestle online with texts dating back millennia—is thrilling. But he’s not prepared to say they’re getting the same educational experience.

"Where you have a back-and-forth, interrogating each other ideas, finding shades of gray So far, online courses have offered convenience, but they generally haven’t scaled up any more easily than traditional ones. If MOOCs can solve this problem, they could shake up the higher-ed paradigm.

In each other’s ideas, I don’t know how much of that you can do in a MOOC," he said. "I can measure some things students are getting out of this course, but it’s nowhere near what I can do even when I teach 300 here at Penn."

A year ago, hardly anybody knew the term MOOC. But the internet-based courses offered by elite universities through Coursera, by a consortium led by Harvard and MIT called edX, and by others, are proving wildly popular—with some classes attracting hundreds of thousands of students. In a field known for its glacial pace of change, MOOCs have landed like a meteorite in higher education, and universities are racing for a piece of the action.

The question now is what MOOCs ulti-
mately will achieve. Will they simply expand access to good instruction (no small thing)? Or, will they truly transform higher education, at last shaking up an enterprise that has seemed incapable of improving productivity, thus dooming itself to ever-rising prices?

Much of the answer depends on the concept at the center of a string of recent MOOC announcements: course credit.

Credit’s the coin of the realm in higher education, the difference between knowing something and the world recognizing that you do. Without it, students will get a little bit smarter. With it, they’ll get smarter—and enjoy faster and cheaper routes to degrees and the careers that follow.

Students are telling the MOOC developers they want credit opportunities, and with a push from funders like the Bill and Melinda Gates Foundation, the MOOCs are trying to figure out how to get it to them.

"Initially, I said it’d be three years" before MOOCs began confronting the credit issue, said MIT’s Anant Agarwal, president of edX, which launched only last May and had 420,000 students signed up this past fall (Coursera is approaching 2 million). "It’s been months."

But making MOOC courses credit-worthy brings challenges much harder than producing even the best online lectures, from entering a state-by-state regulatory thicket to assessment. How do you grade 100,000 essays? How do you make sure students in a coffee shop in Kazakhstan aren’t cheating on quizzes?

In early November, Coursera—which offers classes from 34 universities—announced that the American Council on Education (ACE) would begin evaluating a handful of Coursera courses and could recommend that other universities accept them for credit. (Individual colleges ultimately decide what credits to accept.)

"MOOCs are an intriguing, innovative new approach that holds much promise for engaging students across the country and around the world, as well as for helping colleges and universities broaden their reach," said Molly Corbett Broad, president of the council, in a statement. "But, as with any new approach, there are many questions about long-term potential, and ACE is eager to help answer them."

Antioch University, Excelsior College, and the University of Texas system already are planning to award credit for some MOOCs. Last fall, Antioch became the first institution in the country to sign an agreement to grant credit for select MOOCs through Coursera.

"It’s extremely exciting for students," said Antioch Chancellor Felice Nudelman.

The new partnership will cut the cost of college for students, Nudelman said. It will allow both adults completing their bachelor’s degree and students who are in high school to earn college credit at Antioch for a lower cost—less than $100 for three credit hours in one model, Nudelman said.

Students will be able to take online classes offered by other institutions and complete a written narrative for Antioch to earn credit. For an additional cost, students will be able to receive instruction and guidance from an Antioch instructor while taking the online...
class.

"For many students, the opportunity to study with some of the elite universities—like Duke, the University of Pennsylvania, Harvard—and to be able sign up for a course for free and study in areas that will expand their thinking, get them exciting about education, and be part of something that they may not normally be a part of is just tremendously exciting," Nudelman said.

The latest announcement in the movement toward college credit for MOOCs came Nov. 19: a first-of-its-kind partnership between edX, the MIT-Harvard consortium, and two Massachusetts community colleges. EdX's popular introductory computer science course from MIT will provide the backbone of a class at the community college—a key gateway to degree programs—with supplemental teaching and help from community college faculty on the ground.

This is where the rubber meets the road for transforming higher education. Community colleges are beset by waitlists (400,000 in California alone) and bottlenecks in important introductory courses, as well as low success rates. If scaled-up, MIT-quality teaching can help with solve those problems, MOOCs could be truly revolutionary. Massachusetts Bay Community College president John O'Donnell calls edX an invention comparable to Gutenberg's printing press.

**Key challenges remain**

Online classes have been around for going on two decades, so what's the big deal about MOOCs? In a word: scale.

So far, online courses have offered convenience, but they generally haven't scaled up any more easily than traditional ones; somebody still has to grade the papers, and answer students' questions. One study found 93 percent of institutions charge the same or more for online courses as for in-person ones. No solving the college cost crisis there.

ACE's Broad refers to the "iron triangle" of higher education: cost, access, and quality. The assumption has always been it's a zero-sum game—you can improve any one of those only at the expense of the others. There's also the famous analogy of Princeton economists William Baumol and William Bowen from the 1960s, that college teaching is akin to a string quartet: No matter how technology improves, a string quartet simply can't be performed (well) by fewer people than in Beethoven's day. So the relative cost of college will always rise, relative to other things where efficiency does improve.

If MOOCs solve the scale problem, they could upend those paradigms. But it won't be easy.

Take assessment. Multiple-choice online quizzes are simple enough, but on more open-ended assignments, MOOC students now are mostly grading each other's papers. When they have questions, they're mostly asking fellow students. "Crowd-sourced assessment" raises obvious questions. MOOC leaders are exploring artificial intelligence solutions but admit many aren't fully baked.

EdX's Agarwal even said his group is exploring a kind of rubric of "self-assessment." Asked if he had faith that, particularly in a course aspiring to credit-worthiness, students could really grade their own essays, he replied: "Faith? Yes. Certainty? No."

Cheating's another problem that suddenly matters with credit at stake. EdX is working with a testing company to arrange for proctored exams in centers around the world. Coursera says it will be easier for far-away stu-
students to let them wave an ID card and take a test in front of a webcam, proctored from afar. MOOCs won't offer those things for free. But they could cost much less than, well, the full string quartet.

Broad, of ACE, said MOOCs are promising, but her group will send faculty out to "kick the tires" and research whether online courses enrolling 150,000 or more students can really be credit-worthy. They'll talk to both students who complete and those who drop out (at edX, 80 to 95 percent who sign up don't finish the work).

A likely outcome is more blended models like the Massachusetts experiment, where MOOCs provide the backbone and resources that local institutions can't offer, but local institutions still handle the one-on-one and award the credit. Such models could be "the best of both worlds," said Coursera co-founder Daphne Koller. Versions are already in places as varied as San Jose State and the National University of Mongolia.

Struck, the Penn classicist, agrees that courses like his likely will work best partnering with local institutions much closer to the students, at least when it comes to offering credit. Intro-level science classes are one thing, but it's just not feasible at a scale of 54,000 for a class like his.

Higher education involves both transmitting information and "experiential learning that changes a person," he said. For the latter, at least in his subject, the technology's not yet there.

"These characters of Greek and Roman myth are just full of gray, wonderfully instructive, fundamental grays that make us re-examine our own humanity," he said. "I don't know how much of that I can do with the MOOC."
Colleges eye 2nd Obama term

With Congress gridlocked, how will schools fare?

From staff and wire reports

After a bruising campaign season in which college affordability was a key issue, Barack Obama rolled to a second term as president in the Nov. 6 election, vanquishing former Massachusetts Gov. Mitt Romney by a 303 to 209 margin in electoral votes.

But with the U.S. House of Representatives staying under Republican control and the Democrats maintaining a Senate majority that is too small to overcome the threat of a filibuster, it's unclear how much of Obama's education agenda will be implemented in the next four years.

Obama campaigned on a platform that would make tax credits for college expenses permanent and expand Pell grants for students from lower-earning families. In his first term, he proposed reforms to campus-based aid that would reward colleges for keeping tuition costs down—and he floated a "Race to the Top" competition for higher education that would offer further incentives for states and schools to control college costs.

Romney also emphasized the need to curb rising tuition rates, but he opposed any expansion to federal education spending on programs such as Pell grants. "Flooding colleges with federal dollars only serves to drive tuition higher," he said in an education white paper.

President Obama celebrates his victory in the Nov. 6 election with his family

His running mate, Wisconsin Rep. Paul Ryan, proposed a federal budget that would sharply cut spending on discretionary programs, including education. With Republicans controlling the House, this sets up a showdown between two very different approaches to improving college affordability in Obama's second term.

For students, the stakes are high: Tuitions and fees for four-year public colleges grew by 72 percent above inflation over the past decade, averaging $8,244 last year, according to the College Board, which represents more than 6,000 schools. Student loan debt in the U.S. has hit $914 billion; the average borrower owes more than $24,000, the Federal Reserve Bank of New York says (see side story).

In Congress, both parties agree that college costs are spiraling out of control, but there's not much government can do to control that. What it can control is student aid, and the debate about federal loans raises a familiar disagreement about the role of government. In 2010, when Democrats controlled both chambers of Congress, the federal government
cut banks out of the process and started administering all loans directly. Many Republicans favor restoring the private sector's role in issuing federally backed and subsidized loans.

Higher education also comes with a delicate set of ticking time bombs. Student loan interest rates, capped at 3.4 percent for new subsidized Stafford loans, are set to double July 1, the expiration date for a stopgap Congress passed last year. Pell Grants, the main source of federal aid for low-income students, face the same type of crisis as entitlements like Medicare and Social Security: a cost curve that's become difficult to contain as more people take part.

In the hours following Obama's re-election, Senate Republican Leader Mitch McConnell welcomed the president with both arms folded. "The voters have not endorsed the failures or excesses of the president’s first term," McConnell said. "They have simply given him more time to finish the job they asked him to do together" with a balanced Congress.

Romney tried to set the tone on the way off the stage.

"At a time like this, we can't risk partisan bickering," he said after a campaign filled with it. "Our leaders have to reach across the aisle to do the people's work."

While many analysts are predicting more gridlock with a divided Congress, Robert Moran, director of federal relations and policy analysis at the American Association of Colleges and Universities (AACU), is more optimistic.

"Pell Grants are historically bipartisan—Republicans will want to keep the funding levels the same," Moran said. "They'll look at how to reduce the number of folks on it and reduce the maximum award recipients. Right now, 60 percent of recipients receive the max Pell—Republicans will try to reduce that percentage."

He added: "The Republicans now have a second-term president that I think they will work with. They're going to stay philosophically and ideologically rooted in what they believe, but I think their desire is to get things done. That mentality will help them reach some forms of compromise."

State ballot measures

The Nov. 6 election also shaped higher-ed policy at the state level.

Maryland voters approved a measure allowing illegal immigrants to pay in-state college tuition, provided they attended a state high school for three years and can show they filed state income tax returns during that time. About a dozen other states have similar laws, but Maryland's is the first to be approved by voters.

In Oklahoma, voters approved a Republican-backed measure that wipes out all affirmative action programs in state government hiring, education and contracting practices. Similar steps have been taken previously in Arizona, California, Michigan, Nebraska, and Washington.

In Michigan, labor unions suffered a big loss. Voters rejected a first-of-its-kind ballot initiative that would have put collective bargaining rights in the state constitution.

California's Proposition 30 was passed on Nov.6 and will raise the state's sales tax by a quarter of a cent for four years and increase income taxes for individuals who make at least $250,000 annually by up to 3 percent for seven years. Estimates project that Prop 30 will raise $6 million annually for California's general fund and education.
Also passed on Nov. 6 was New Jersey's Question 11, which allows the state to borrow $750 million for higher-ed improvements.

"That also sends a strong message that having high quality instructional facilities matters and that was the first time that the state has provided money for upgrades for state colleges since 1988—they were way behind," said Daniel Hurley, the AACU's director of state relations and policy analysis.

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