College may never be the same

How online courses will revolutionize higher ed

Section: News, Pg. 01a

Jonathan Salovitz's course load sounds as grueling as any college undergraduate's: computer science, poetry, history, math and mythology, taught by professors at big-name schools such as Princeton and the University of Pennsylvania.

Except Salovitz, 23, is not an undergraduate. His effort won't count toward a bachelor's degree, and he hasn't paid a dime in tuition. Nor have his classmates, who number in the tens and even hundreds of thousands.

Instead, Salovitz calls himself a "guinea pig." He's participating in a grand experiment in higher education known as Massive Open Online Courses -- MOOCs, for short. Learners of all ages around the world are flocking to them. Top universities are clamoring to participate. And MOOCs already have attracted the interest of some employers, paving the way for a potential revenue source. All in less than a year.

"The industry has operated more or less along the same business model and even the same technology for hundreds of years," says John Nelson, managing director of Moody's Higher Education. "MOOCs represent a rapidly developing and emerging change and that is very, very rare."

In a new report, Moody's Investors Service calls MOOCs a "pivotal development" that has the potential to revolutionize higher education. Questions remain whether these online courses can be profitable and whether traditional colleges will award credit for them. But if successful, MOOCs could lead to lower costs for families and access to higher-quality instruction for anyone in the world who has Internet access.

The spark ignited last fall, when more than 160,000 people worldwide signed up to take a free artificial intelligence course taught by Stanford research professor Sebastian Thrun, who is perhaps best known as a leading force behind Google's driverless car.
Thrun has since co-founded Udacity, supported by a venture capital firm. The company expanded its course offerings this spring. In May, the Massachusetts Institute of Technology and Harvard committed $30 million each to found edX, a non-profit partnership that will offer seven MOOCs this fall. Meanwhile, 16 research universities, including three from outside the United States, have signed agreements to offer courses through a platform created by Coursera, a social entrepreneurship company founded by two Stanford professors.

Each MOOC is unique, but courses generally feature a series of short, video segments in which an instructor describes a particular concept or skill, then gives exercises, quizzes and exams.

Math- and science-related disciplines have dominated course offerings. But Coursera, which lists more than 115 courses on its website, has expanded its repertoire to include subjects such as fantasy and science fiction, world music and poetry. For many courses, autograding technology provides instant and sometimes detailed feedback; Coursera is experimenting with having students evaluate each other's work.

Students can access the course materials at their convenience, and ask and answer questions on online discussion boards. Often, students organize themselves into study groups and might even meet in person. While they usually never communicate directly with the instructor, classmates may chime in, and the instructor or an assistant may monitor discussions to address commonly raised issues.

Classes open to everyone

How MOOCs will change the higher education landscape is still very much an open question, but the possibilities are mind-boggling. Theoretically, for example, a single MOOC on a particular topic could accommodate every student in the world. "If you make a really, really great computer science class, it will eventually trump a mediocre computer science class," says Udacity's Thrun. And the bigger the audience, the more cost-effective the course.

MOOCs also have the potential to radically alter a centuries-old business model, one that for most institutions has depended on increasingly higher tuition. MOOC providers want to keep courses free to students, but "for these to work they're going to have to be sustainable and bring some amount of money in," says Mike Horn, a co-founder of Innosight Institute, a Silicon Valley think tank that focuses on education. Universities are mostly worried about what they stand to lose if they don't jump into the fray. "There is a bit of a herd mentality," he says. Schools may be "reacting without much strategic thought behind it."

Moody's sees several likely revenue opportunities, including advertising and licensing. Eventually, it expects that students will have to pay some costs. EdX, for example, has said it plans to eventually charge a fee to students who want to receive a certificate upon...
completion. Horn thinks employers will pick up much of the tab. Already, Udacity offers to help match high-achieving students in its courses with partner companies.

As for colleges and universities, the big financial winners will be brand-name universities who seize the opportunity, the Moody's report says. It also says their elite reputations will allow their residential campuses to flourish. In contrast, less selective schools will likely see a decline in student demand, and colleges with small endowments will be particularly at risk, unless they find a way to participate. The embrace of online education by elite institutions also will help "reduce the stigma" of distance education, and put new competitive pressure on for-profit colleges, which have dominated the distance-education sector, Moody's says.

But that's getting ahead of the story. Even as top universities jump on the bandwagon, they are quick to stress that MOOCs can't replace the on-campus experience. And, while professors are designing courses to be as rigorous as those they teach on campus, colleges aren't ready to award college credit for students who complete MOOCs.

"We wouldn't participate if we didn't find them valuable," says Christoph Guttentag, undergraduate admissions dean at Duke, which recently signed a deal with Coursera. But when someone receives a degree from Duke or Stanford or MIT, people know that means something. Those things are less certain or less sure when you're dealing with a MOOC."

Ensuring academic standards

The top concern is how to ensure that students are actually learning. "There's no way to keep track of individual student progress and development when the numbers are that high," says University of Illinois English professor Cary Nelson. Taken to the extreme, MOOCs could lead to "mindless credentialing of thousands and thousands of students."

So far, students who pass the course -- at this point, the vast majority of students never finish -- might get a certificate or document, in some cases signed by their professor, showing they completed or perhaps even excelled in the course. But other than an honor code, there's no identity check, and some writing classes have encountered problems related to plagiarism. Starting this month, a division of Pearson, an education publishing company, will allow students to take a proctored final exam for Udacity courses; it will add tests for edX courses next year.

Meanwhile, some schools are looking for ways to integrate MOOCs into their existing programs. The University of California-Berkeley, which this summer joined edX, is considering a plan by which state community college students who enroll in its MOOCs might earn transfer credits, Chancellor Robert Birgeneau said.

Many students enrolled in the first generation of courses seem unconcerned about those details. "I am still overwhelmed by so many people wanting an education, even without
(earning course) credit," says retiree Maureen Shipbaugh, 69, of New Port Richey, Fla., who is taking a class on fantasy and science fiction taught by University of Michigan English professor Eric Rabkin.

Salovitz, who dropped out of the University of Connecticut after completing two semesters and accruing $20,000 in loans, hopes MOOCs will help him in the job market. "There's no way to argue that my learning experience (with) top professors from across the country is going to be worse than anyone else's learning experience in any learning environment," he says. "Then it's up to the employer. How much weight do these online certificates hold in the eye of the employer?"

Most promising, perhaps, is how MOOCs are creating opportunities in developing countries. This spring, students at a high school in Mongolia participated in an engineering MOOC, and two of them earned A's.

"It is not difficult to imagine a talented Mongolian high school student applying to MIT with such a credential in hand," says Tony Kim, a Stanford graduate student who offered labs and discussion sections at the Mongolian school.

Ashwith Rego, 24, of Bangalore, India, who passed the same course, taught by an MIT professor, says it was harder than anything he had taken in his undergraduate engineering program in India. "The fact that it was an MIT course, I thought I wouldn't be able to do well," he says. "I will definitely put this on my rsum."

In that context, hand-wringing over whether MOOCs can or should replace a campus-based education is irrelevant, says Coursera co-founder Daphne Knoller.

"I don't think it is a perfect substitute," she says. "The question we must ask is whether what we're providing these students is better than they would have had otherwise."

---

Three providers of MOOCs

Udacity (udacity.com)

Launched in January, Udacity, a private educational organization, is now offering 14 courses on computer-science related topics.

Coursera (coursera.org)

Launched in April, 16 private and public universities have agreed to put web-based courses online through a platform offered by Coursera, a for-profit company, and more are
expected to join. More than 115 courses are listed on topics including poetry, world history, statistics, logic, mathematical biostatistics.

edX (edx.org)

The non-profit organization was launched in May by the Massachusetts Institute of Technology and Harvard; the University of California-Berkeley joined in July, and more colleges are expected to follow. Seven courses are being offered this fall. Topics include chemistry, computer programming, software as a service, circuits and electronics, clinical and public health research, artificial intelligence.

Source: USA TODAY research

(c) USA TODAY, 2012

Source: USA Today, SEP 12, 2012
Item: J0E165714863412