

Free, high-quality and with mass appeal

Technological advances mean that 'massive open online courses' now have the potential to revolutionise learning, says **Rebecca Knight**

Edward Hess, professor at the University of Virginia's Darden School of Business, is teaching a "massive open online course" (mooc) starting in January on Coursera – the free online education platform founded this year by two Stanford University computer scientists. So far, more than 26,000 students have signed up.

"I usually teach 120 or 130 students a year," says Prof Hess. "Do you know how many years I would have to live before I could teach that many students?"

His class, on how to help a private business grow, is among the first MBA-level moocs offered on Coursera. It is, he says, "an opportunity to help lots of people learn from each other and become more successful".

Meanwhile, the Wharton school at the University of Pennsylvania began its first free online course on Coursera in August. The course, on gamification – the application of digital game design techniques to non-game problems, such as business – attracted 81,631 people, with 9,244 completing the course earlier this month. It will be run again soon.

The promise of Coursera and platforms like it – including edX, a joint online education partnership run by Harvard and MIT, and Udacity another Stanford start-up that offers moocs in computer programming and software design – has been lauded by the higher education community. By bringing high-quality college and graduate-level moocs to a wider audience, these platforms could help provide life-long learning opportunities.

These platforms also have a potentially dramatic impact on business education: not only in the way schools deliver a traditional management degree, but also because moocs may in time become direct competitors to schools' specialised programmes. As these platforms try to make money, they could offer executive education, custom programmes for employers and other programmes for MBAs – courses that have typically been very lucrative for schools.

"If business schools want to con-

tinue to make good money with standard off-the-shelf open programmes they [had] better learn to deliver them online," says David Bach, senior associate dean for executive MBA and global programmes at Yale School of Management. "Managers' time away from the office has become the main training cost firms try to minimise, and with Coursera and others that cost can now be zero," he adds.

Several schools have attempted online education in the past without much success. In 2003, Fathom, Columbia University's for-profit online learning platform, closed just a few years after launch, while AllLearn, a venture backed by Princeton, Yale and Stanford, lasted three years.

But this new breed of web-based systems is different, says Daphne Koller, co-founder of Coursera. "We are at an inflection point," she adds.

Prof Koller says that technological advances, including the improved quality of cloud computing, the reduced cost of streaming video and the capacity to create user-friendly custom content, have made it easier and less expensive to deliver courses online. "And on the sociological side, there is a generation of students that has grown up utilising technology for education and social interaction. This is natural for them," she adds.

'The campus experience is a unique and very valuable one, but online education is a rising tide that lifts all boats'

Business schools have long emphasised classroom debate as a learning tool, but many classes are still taught by lectures. The arrival of Coursera, edX and Udacity may change that.

Both Udacity and edX recently announced agreements with Pearson Vue, a provider of testing services, giving students the option of taking a final, proctored (certified) exam. Pearson Vue is owned by Pearson, which owns the Financial Times.

These new platforms could essentially "flip" the classroom: rather than going to class and sitting through long lectures, students will watch them in their own time as homework. This will allow them to rewind parts of the lecture and go over material they find more challenging. It also frees up class time for group discus-

sion or experiential learning. Salman Khan, founder of Khan Academy, the free online education platform, is the pioneer of this model.

This development could help level the playing field between top business schools with large endowments and those with fewer resources, Prof Koller adds. "The flipped classroom creates more time for relationship-building. It allows those smaller colleges [and business schools] to do what they do better than anyone else and that is to get to know their students; to see what their needs are and to help them along."

Jeffrey Katzman, chief learning officer at Colorado-based Xyleme, which sells education tools to universities, says the new platforms recruit "superstar" teachers. "They put a very high production value on these courses and they're investing a lot of money into the curriculum."

The rise of these platforms also poses competition to lower-tier programmes, which will have difficulty justifying their prices in the face of free online courses from top schools. A recent report by Moody's, the credit rating agency, warned that the platforms also posed a threat to for-profit universities.

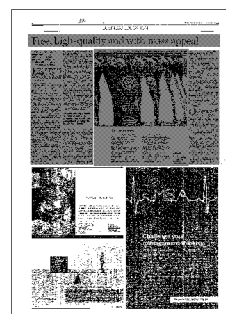
Outside the traditional MBA, these platforms could alter the way business schools deliver specialised courses for employers and working professionals. Such programmes are considered cash cows. But as Coursera, edX and Udacity add more business courses, moocs present companies with an appealing and cost-effective alternative.

Executive education may evolve from a residential model to a desktop one, says Anant Agarwal, president of edX and a professor of computer science and engineering at MIT.

"Online learning is a useful technology for executives," he says. "When you have a job, it's difficult to get away for a week or two weeks. But if you had the opportunity to do a class at night or weekends on your computer, it opens up a whole new world. It becomes much more attractive and much more convenient."

Prof Agarwal says that charging companies for these classes is one way to monetise edX, which is a non-profit but needs to be "self-sustaining" in future.

"The campus experience is a unique experience and a very valuable one," he says. "But online learning is a rising tide that lifts all boats."





The online players

Coursera: Founded by two Stanford University computer scientists, now has 33 partner schools.

- More than 200 massive open online courses available; sample class, healthcare innovation and entrepreneurship.

- For-profit company. Has raised \$22m to date, including \$16m from a venture capital firm. Possible revenue sources include career placement services and offering classes for college credit.

edX: Founded as a joint partnership between MIT and Harvard.

- Seven moocs available, taught by professors from Harvard, MIT and the

University of California, Berkeley.

Sample class: software as a service.

- Non-profit enterprise, but aims to be "self-sustaining". Harvard and MIT each contributed \$30m. Possible revenue streams include customised courses for companies.

Udacity: Founded by Sebastian Thrun, robotics expert and former director of the Stanford Artificial Intelligence Laboratory.

- 14 moocs; mainly in computer programming and software design.

Sample class: How to build a start-up.

- For-profit company. Possible revenue source: charging employers for continuing education classes.

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