

# Keeping tabs on massive open online courses

January 29 2014

---



MOOCs, say Meng Sang Chew and Kelly Grim, make it possible for anyone with an Internet connection to take college courses, but the dropout rate is high and the return on investment uncertain.

(Phys.org) —Is the Internet causing a revolution in education by enabling large numbers of students to take college courses online, at little or no cost, from faculty members at leading universities?

The jury is still out, say Meng Sang Chew and Kelly Grim, but massive open online courses, or MOOCs, are already posing a challenge to the

educational and business models of traditional universities.

Chew, an associate professor of [mechanical engineering](#) and mechanics, and Grim, director of Lehigh's Center for Academic Success, recently wrote an article titled "Massive Open Online Courses—A Revolution in Education?"

The article, which won one of two Best Paper Awards at the 4th International Conference on Teaching and Learning in Bangkok, Thailand, examines the effects of MOOCs on six "stakeholders"—course instructors, course providers, students, parents, colleges and universities, and society, including the government agencies that subsidize higher education.

Students in MOOCs have a much higher dropout rate than students enrolled in traditional college courses, say the authors. They do not enjoy as close a relationship with their teachers, and they lack access to tutoring facilities like the Center for Academic Success.

## **Turbulent times**

The advantages of MOOCs, says Chew, are low cost and flexibility. "You can take a course anytime, anywhere," he says, "as long as you have an Internet connection."

The Internet, says Grim, connects MOOCs students in other ways.

"Students can organize online discussion boards," she says. "They can get together with each other and ask questions and figure things out on their own. In the process they can get to know people all over the world."

MOOCs have caused "great turbulence" in American higher education, Chew and Grim conclude in their paper, and could soon do so in other

countries.

"With the open environment of the Internet, and the large profits that can possibly be made using MOOCs as an inexpensive alternative to higher education," they write, "it is just a matter of time before the effects currently being felt in the U.S. spread throughout the world."

"I don't really think MOOCs will be a revolution," says Chew, "but universities will definitely need to keep an eye on MOOCs, how [this] evolves and how it can affect our current mode of teaching."

## **At the forefront of technology**

Lehigh has long been a leader in using technology to reach and teach students. The office of distance education has offered graduate-level courses to students in other states and countries, most of them working professionals, for two decades, making the transition to exclusively online courses in 2010. Lehigh offers accredited master's degrees to distance-education students in bioengineering, business administration, chemistry, molecular biology, chemical engineering, manufacturing systems engineering, mechanical engineering, and polymer science and engineering, as well as certificate programs in six subject areas.

The Center for Innovation in Teaching and Learning helps faculty members use technology to improve classroom teaching. The center also helps students learn to use technology to do research and to communicate with instructors.

An Online Learning Advisory Committee (OLAC) led by Provost Pat Farrell and Bruce Taggart, vice provost for library and technology services, has been meeting for a year to study online education and recommend next steps for the future. At a one-day OLAC forum last semester, more than 100 people discussed a variety of topics, including

whether Lehigh should make online education a priority, and which areas of the curriculum could best be improved by online education.

Chew and Grim became acquainted after exchanging emails in which they discussed the problems that students were having in one of Chew's advanced classes.

"Staff members who work closely with students can often provide faculty with a different perspective on why students are not doing well," says Chew.

When their discussions turned to MOOCs, the two educators decided to study the phenomenon, and its effects on groups involved in higher education, by reading articles in the literature.

"A lot of research has been done on this topic," says Chew. "We tried to pull it all together. Millions of [students](#) have taken online courses just in the last 2-3 years. What does this mean? How does each stakeholder look at MOOCs?"

## **Seeking a financial model**

Several dozen of America's top universities, Chew and Grim write in their article, have joined forces to create and/or invest in Coursera, edX and Udacity, the three main companies that provide MOOCs courses. Schools jumping on the MOOCs bandwagon include Stanford, MIT, Harvard, Princeton, the University of California at Berkeley and the University of Pennsylvania. The University of Texas recently announced it would begin offering credit for edX courses. Some schools in California already do.

Several financial factors, say Chew and Grim, make MOOCs potentially attractive to society. These include the costs of higher education, which

have been growing faster than the rate of inflation for 30 years, and budget constraints that are causing some states to curb support for higher education. If large numbers of universities offer credit for MOOCs, this could significantly reduce the cost of four years of college.

"For parents, MOOCs [could] seem to be the answer to the rising cost of higher education today, particularly if more colleges begin to accept MOOCs for credit," the authors write.

But MOOCs need to overcome two challenges to gain a foothold in [higher education](#). First, the dropout rate for MOOCs courses, Chew and Grim say, has been reported to be as high as 90 percent. Second, MOOCs need to develop a financial system that ensures a return on the investments made by universities and venture capitalists.

"Venture capital and philanthropy have thus far helped fund some providers," the authors write, "but for the most part ... providers and institutions bear their own costs. Given that it takes millions of dollars to fund a startup as a provider, it is logical that in the longer term, these providers must find a way to make a profit out of their investments."

Provided by Lehigh University

Citation: Keeping tabs on massive open online courses (2014, January 29) retrieved 3 May 2024 from <https://phys.org/news/2014-01-tabs-massive-online-courses.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.