

Another classroom revolution on the Web

BIELEFELD, GERMANY

Online open courses, often free or low-cost, catch on in Europe

BY CHRISTOPHER F. SCHUETZE

At first blush, the unassuming Bielefeld University of Applied Science — a small public technical college in a small German city — has little in common with the world-renowned Stanford University.

Checking the Internet, however, one surprising similarity emerges: the long reach of some of their undergraduate lectures.

Jörn Loviscach, a professor of mathematics and computer science in Bielefeld, has been putting his lectures on YouTube since 2009. The German-language math and computer science courses have become smash hits.

His more than 2,000 clips, which include lectures, problem-solving tutorials, general mathematics instructions and even a special talk on relativity theory, have been watched more than 10.6 million times. More than 26,000 viewers subscribe to his channel.

He says most of his viewers are students at other German universities, but — going by comments on his YouTube page — they also include parents of students trying to help their kids, professional engineers grappling with mathematical concepts and a sprinkling of the simply curious.

"I realized that there are people out there who are interested in the material, people who need to learn it," Mr. Loviscach said.

This year Mr. Loviscach turned one of his YouTube mathematics courses into his own Massive Online Open Course, or MOOC, a process that required finding a platform that would allow for his popular clips as well as quizzes and a discussion board. He's also teaching on third-party MOOC platforms. He has developed an English version of one of his popular courses with Udacity, a popular American MOOC platform. And he is in talks with Iversity, a new European MOOC platform.

MOOCs have become highly popular

in the last couple of years in the United States, where the concept evolved. The growth in the number of courses, providers, participating universities and online students has led to a debate among educators, with some arguing that these free virtual lectures could completely change the nature of post-secondary education, while others warn that the courses are not nearly as effective

as real lectures.

Now, after a cautious start, MOOCs are catching on in Europe, too, as universities and educators look for ways to save on teaching costs and reach out to a wider student audience, and as providers sense commercial opportunities.

Several distinct platforms have started operating in Europe this year, while a consortium of open universities has come together to provide a database of their MOOCs. Innovation is not only coming from entrepreneurs and educators: As part of a major education directive, the European Commission is set to launch an open education resource Web site later this week.

Often produced by well-known colleges or universities, MOOCs are frequently hosted on third party commercial platforms. Depending on the platform, students may be able to watch top-quality lectures and tutorials online, contribute to discussion boards and take computer-graded tests. There are no admission requirements, no scheduling clashes and no, or low, tuition costs.

There is a downside: original work usually cannot be graded, and typically no college credit is given for having completed a course. But MOOC platforms and educators on both sides of the Atlantic are working on systems that enable MOOC students to be awarded actual college credits for completed courses.

Courses taught by prestigious universities and well-known professors tend to be among the most popular. Last year, a Stanford course on artificial intelligence, taught by Sebastian Thrun, professor of computer science, and Peter Norvig, director of research at Google, drew some 160,000 students.

But — unconstrained by geography, bureaucracy and degrees — MOOCs also allow students to choose courses based only on how well they are taught, as Mr. Loviscach's success demonstrates.

"We are just as far from India as Stanford — namely, just one click," said Sebastian Springer, a professor at the Jacobs University in Bremen who is preparing an English-language molecular biology MOOC.

Together with his teaching partner, Susanne Illenberger, Mr. Springer won one of 10 places in a European MOOC production competition in June.

"You could say it's an advertisement for our institute," said Professor Springer, who expects many of his students to come from developing countries.

The competition won by Mr. Springer and Ms. Illenberger — which was partly decided by an online vote — was held by the Stifterverband, a German science foundation, and Iversity, one of Europe's newest MOOC providers. The 10 finalists each received €25,000, or \$33,000, to develop their MOOC in addition to technical help from Iversity to take the

courses live, starting this autumn.

Iversity, a Berlin start-up, is financed by German federal and state governments and venture capital. It holds production workshops for educators wishing to go online.

Beyond providing a platform, Hannes Klöpper, Iversity's managing director and co-founder, is trying to find ways to offer credits for classes taken online. Last week, Iversity announced that two of its courses could earn transferable academic credits, under the European Credit Transfer and Accumulation System, at the home universities of the professors teaching the MOOCs. Students interested in receiving credits would have to take their exams at the universities, which would be responsible for grading their papers and awarding the credits.

Still, Michael Gaebel, head of the higher education policy unit at the European University Association, said he had some doubts about whether MOOCs would ever achieve the same popularity in Europe as in the United States — partly because college education tends to be cheaper in Europe than in North America.

"There are fewer sparks in a place where most education is essentially free," he said. "We just don't have the same market here in Europe that they have in the U.S."

Despite such doubts, European MOOC platforms are springing up quickly.

Early last year, Eliademy was started by a group of Nokia veterans in Finland. FutureLearn, in Britain, will start its first courses this month; run by the Open University, a distance learning university, it will pair with both British and international universities to provide courses. In Spain, the Miriada X platform has teamed up with several universities to offer MOOCs in Spanish. France Télécom has also announced that it plans to create a MOOC platform.

Europe's multiple languages and diverse cultures — and a less market-oriented view of college education — may help to differentiate European MOOCs from their American cousins, according to some educators.

"It is not necessary to have 100,000 learners to have a good course in the market," said Fred Mulder, Unesco professor in open educational resources at the Open University in the Netherlands.

Mr. Mulder is a leading figure in OpenupEd, an initiative by Europe's open universities to collect and organize their MOOCs on one pan-European site.

"We are not driven by revenue, we are driven by the benefits for learners in the society," he said.

The OpenupEd database, started in April, offers some 64 courses offered by 11 universities in 12 languages, includ-

ing Arabic and Hebrew.

"I hope it will open up education to tens of thousands of students and trigger our schools and universities to adopt more innovative and flexible teaching methods," Androulla Vassiliou, European commissioner for education, said at the launching.

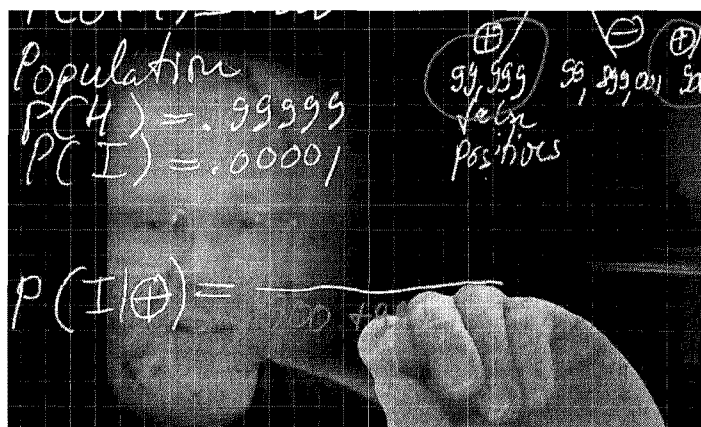
The European Commission's directive later this week will focus on online resources and teaching — for all levels of education — as a response to a vast increase in student numbers expected in the coming decade.

"Normal business is not going to work: universities are going to have to

turn to technological innovations to be able to cope with the big increase of numbers," said Dennis Abbot, a commission spokesman on education policy.

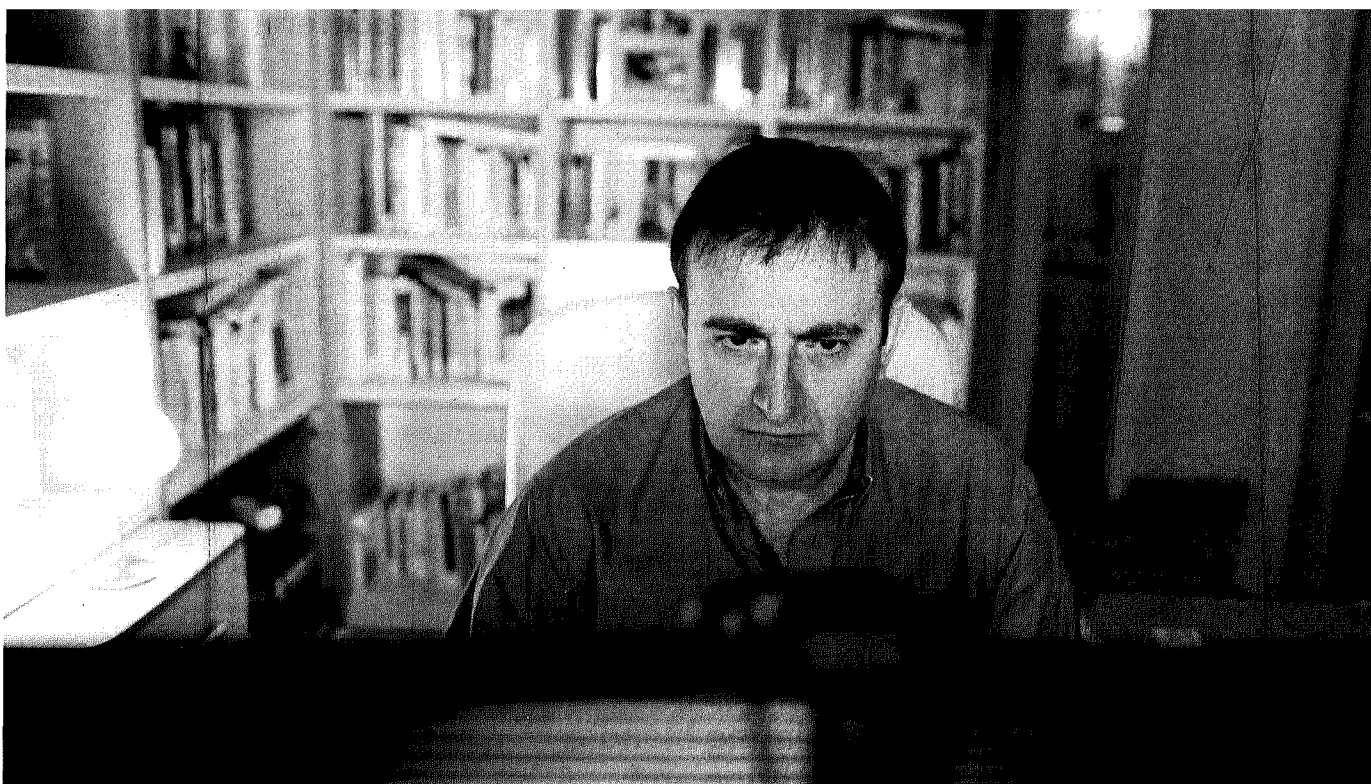
"There is a revolution out there at the moment; we cannot afford to be left behind," Mr. Abbot said.

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ANDRÉS KLIDACKI/THE ASSOCIATED PRESS

Raúl Ramos, a student in Madrid, working on his homework for a Massive Online Open Course. Multiple languages and diverse cultures may help differentiate European MOOCs from their American counterparts.