

World Knowledge Forum 2013

Daphne Koller, The Online Revolution: Learning without Limits

Higher education is undergoing a major transformation due to the introduction of MOOCs - Massively Open Online Classes - which are offered worldwide by the best universities at no cost. At the 2013 World Knowledge Forum, Daphne Koller, co-founder of Coursera, provided insight on this educational experiment and its potential impact.

Since the launch of Coursera in 2012, enrollment has reached over five million students in countries around the world. According to Dr. Koller, MOOCs have "established for us the potential opportunity to take the education that is available only to a tiny handful of students and make it available to anyone, anywhere, anytime."

"We started with computer science, but it's not where we ended up," stated Dr. Koller. With courses ranging from psychology to physics, the goal of Coursera is to feel like "real" college, rather than static course materials. However, including grades and homework continues to have its problems in the virtual realm: "Procrastination is a global phenomenon," Dr. Koller quipped.

So how can an online course remain engaging and interactive? Dr. Koller argued that MOOCs actually improve the level of classroom interaction.

"[In a real classroom] there are 150 students there. I ask a question. Eighty percent of them are still scribbling the last thing I said, and in the front row there's one student who answers the questions before anyone else has even realized I asked a question," Dr. Koller said. With a MOOC like Coursera, she said, "The real learning happens when students have to work on the material themselves."

With Coursera, students are also receiving instant feedback, which Dr. Koller said completely changes the dynamic of student learning. "It incentivizes students to treat it like a computer game," she said. This kind of mastery learning ultimately helps students do better on a final exam.

But Coursera is not only focusing on the final grade. "Students are now learning how to critically assess a piece of work," said Dr. Koller. This, in turn, leads students to evaluate their own work better – something Dr. Koller calls "an incredibly valuable learning experience."

To stress the importance of community, Dr. Koller stated, "[Coursera has] deliberately tried to make this a communal learning process." With tools such as peer-teaching, students are able to answer their peers'

questions, rather than solely relying on the professor. The global aspect of MOOCs has transformed classes from merely course material into a hub of global student perspectives.

The online platform has opened the door to improving learning outcomes. According to Dr. Koller, Coursera is using "big data in the service of human learning." Using Coursera statistics, she was able to show that students often make similar mistakes, leading professors to easily send personalized messages for better understanding.

"As a society, we cannot afford a tutor for every student," said Dr. Koller. With Coursera, she says, "You can take the same amount of work a professor uses and make it a better learning outcome."

In expressing the aim for this kind of learning experience, Dr. Koller concluded, "The goal of this effort for all of us is to take education and turn it from the privilege of the few to a basic human right."