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Coursera Announces Details for Selling Certificates and Verifying Identities

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By Jeffrey R. Young

How is a major provider of free online courses going to tell whether you are who you say you are? By how you type.

The company, Coursera, plans to announce on Wednesday the start of a pilot project to check the identities of its students and offer "verified certificates" of completion, for a fee. A key part of that validation process will involve what Coursera officials call "keystroke biometrics"—analyzing each user's pattern and rhythm of typing to serve as a kind of fingerprint.

The company has long said that it planned to bring in revenue by charging a fee to students who complete courses and want to prove that achievement. And Coursera has long recognized that its biggest challenge would be setting up a system to check identity. Other providers of free online courses, which are often called massive open online courses, or MOOCs, have decided to work with testing centers and to require students who want certificates to travel to a physical location, show an ID, and take tests while a proctor watches to prevent cheating.

Coursera has decided to try to check IDs remotely, so that students can take tests from anywhere. During the pilot stage, the service will be offered in only five courses, but if it goes well, it will eventually be rolled out to nearly every course in Coursera's catalog.

The company's verification system involves several steps:

- Early in the course, Coursera will ask participating students to hold up a picture ID in front of a Webcam, and then pose for a second picture of themselves, for an initial identity check. A human being will compare the two Webcam images to see if they match, essentially serving as a virtual bouncer.
- Each student will then be asked to type a short phrase to register his or her keyboarding pattern with Coursera.
- Each time students submit assignments, they must type the same short phrase for the system to check whether it matches their initial sample.

Can typing style serve as a reliable way to check identity?

Hany Farid, a computer-science professor at Dartmouth College who is an expert on digital forensics, said that the idea had been around for a while but that it is generally less secure than a fingerprint scan or other biometric methods.

"In general, identifying people online is incredibly hard to do," he said. "It could be that for what Coursera wants, it's good enough. It could be that it's just a barrier to entry and that it sort of freaks out some people" who might have otherwise tried to game the system, he added.

One potential problem with relying on typing patterns is that some people might type in different ways in different situations. "You don't want this thing locking you out because you're in a bad mood," he said.

Coursera said it was testing two different software programs to do its identity verification—one from an outside company and one that it had developed itself. Coursera officials would not disclose which outside company they were working with.

Setting the Price

The company also revealed more details about how it would award certificates and how much it would charge for them. Students who want a verified certificate will have to decide early in the course and pay upfront. Paying that fee will put students on what the company is calling the "Signature Track."

The company and colleges are still struggling to decide what to charge for the certificates, though in its latest announcement Coursera said the price would run \$30 to \$100.

"It's a huge decision: You're essentially setting a market," said Daphne Koller, a cofounder of Coursera, in an interview this week with *The Chronicle*. "No one has ever priced this before."

Officials also stressed that they would offer financial aid to students who demonstrated that they could not afford the fees but could benefit from the verified certificates.

Ms. Koller said Coursera would continue to offer free unofficial certificates to students who passed some of its courses.

So why would someone pay for the verified certificates?

Peter Lange, provost at Duke University, which plans to offer one of the courses in the new pilot, said each free certificate would have a clear disclaimer on it: "It says something to the effect of, We cannot vouch that the person who got this document took the course or did the work."

The new Signature Track could mean serious revenue for Coursera, and for the 33 partner colleges that will get a cut of it.

Exactly how the colleges will divide that revenue is still being worked out, it seems. Mr. Lange said the question was on the agenda at the next monthly meeting of Duke's Advisory Committee on Online Education.