



SCRIPT OF TALK

TITLE: **What is inside a MOOC- Identity**

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NARRATION:

Hi!! Welcome back today we're going to talk about identity in a mooc. My name is Prabhakar, I'm with IIT-Kanpur. Let's start with a very famous cartoon which came some time back I hope you can read it but let me read it for you otherwise. We have these two dogs talking to each other and this one says on an internet nobody knows you are a dog. This is by Peter Steiner came many years back and it's one of the most reproduced cartoons from a New York magazine. So, the issue is when somebody logs in onto a moocs and claims to be let's say 'Tvp' how do you know he is 'Tvp'. It's not important always but when you are issuing a certificate for example and 'Tvp' is going to use that certificate for a job let's say you have to make sure that it indeed is the same 'Tvp' and that this 'Tvp' did not cheat in the examination while taking the quizzes or other online exams so this problem was not very difficult when we were doing a face to face meeting in the traditional classroom setting but on an online environment it is slightly complicated so how do we established identity in a moocs. Ofcourse, the simplest way is don't do it when certification issues are not very high the certificate is not going to be issued for a job and so on. You don't bother about establishing identity the user comes in logs in on to the system saying I am so and so. This is my email ID and this is my name and you conduct the exam and give the certificate and goes away. Most of the Moocs works this way. Another way to establish identity in a Mooc kind of environment is online verification. So, what do we do here? Essentially, we take an identity card and let's say a national identity card or passport and ask the user to show it in the webcam and of course the user's photograph also is taken over the webcam so we can identify clearly that this user whose photograph I see in the webcam belongs to the person whose identity has been established in the passport. So, this is the kind of system that the companies like edX and Coursera seem to use. You may want to verify the identity multiple times over length of the course but nevertheless this is a very simple easy and simple way to do it so another sophisticated and very interesting way of ensuring the identity is

what's called the 'Typing Patterns'. It is the kind of biometric apparently people type differently each one has a different parameter when you try to measure the latencies between adjacent keystrokes while you're typing some keys follow each other very fast and some take a little longer and how long it takes is a function of the particular pair of keys and how long you press the key the key press duration and relative speeds between words and so on and which shift key do you use the left one or the right one when you type in caps. So, these are the kind of parameters which you can capture and construct a signature for the user and along with the earlier way of identifying who the user is and capturing the keystroke the signature as it is called the 'Typing Pattern' you can establish that when an exam is being taken or whenever there is an important evaluation happening that this person is indeed the same one that he claims to be so this is the third way of establishing identity on the mooc. The next one is conceptually even simpler for example Udacity follows it. So, there is a student who claims she has done the course and she has learned some things and she produces let's say a term project which she claims to be his own work. Then, the mooc provider the company or organization offering the course will have somebody call a coach who has actually helped student during the course to do the project will talk to the student and make sure that the student has understood what he or she is talking about ensure that the work that have been submitted for credit and evaluation is indeed done by the student. So, this is another way of managing identity on the internet and finally there is a very simple way to do it Face to Face. The student has to go to a place a test centre to take the exam this is called a Proctored exam and you can verify the identity right there with some national identity card let's say and you have guaranteed that there is no cheating happening. Examples of this are the NPTEL program in India is offering verified certificates through Proctored exams Pearson VUE it's a business of the Pearson book publishing house has large number of global centers as centers all over the world where they can actually conduct proctored exams. So, this is also used by many certification providers so this is another way to certify that the student who has taken the exam who has got the certificate is indeed the person who claims to be.

Thank you