UNCTAD - Advisory Group on Developing skills, knowledge and capacities through innovation: E-Learning, M-Learning, cloud-Learning - Geneva 10/12/2013

MOOCs and Google

Michel Benard - University Relations Manager - Google

The first MOOC (Massive Open Online Course) was launched late 2011 by Profs. Peter Norvig and Sebastian Thrun from Stanford University. In the TED video relating his unique experience (<u>http://www.ted.com/talks/peter_norvig_the_100_000_student_classroom.html</u>), Peter Norvig is addressing many opportunities and open questions that this introduction has raised. Since then many MOOCs have been created by a large number of universities and institutions worldwide, hosted by platforms like Coursera, Udacity, EdX, Iversity, FutureLearn and many other private or public organizations. MOOCs are now used for teaching science, technology, humanities and many other fields, such as sport, vocational topics or general public interest topics.

In summer 2012, at Google we ran a <u>MOOC</u> (Massive Open Online Course) on <u>Power</u> <u>Searching</u>. Soon after, we open sourced <u>Course Builder</u>, the platform that we developed on Google technologies to present the course. Since then, we have released four versions of Course Builder adding features such as user-friendly content development, administrative support, dashboards on student performance and behavior, new assessment types including peer review, accessibility, internationalization, <u>etc</u>. A <u>large number of courses</u> have been hosted on Course Builder, with many more in the pipeline.

This work started with the observation that we have all the component technology one needs to create a platform for delivering a learning experience similar to other MOOCs that were being offered on <u>Coursera</u> and <u>Udacity</u>. So we set about wiring together these components (YouTube, App Engine, Groups, Apps, Google+ and Hangouts, etc.) to create the first version of Course Builder.

As we talked with faculty and others who wanted to create online learning experiences, we saw an opportunity for Course Builder to play an important role in the MOOC space. Our goal is to provide the capability for anyone to create a MOOC or even an "OOC". We believe that an online environment can be used for a wide variety of education-related activities beyond just the standard university course. We have implemented a feature set that supports this goal.

Our users include not only colleges and universities, but also non-profits and K12 organizations. We host academic courses such as <u>Information Visualization</u> and <u>Game Theory</u>, as well as short courses including <u>Mapping with Google</u>, <u>Digital Learning in K12</u>, <u>YouTube Creator</u> <u>Academy</u>, and <u>Giving with Purpose</u>. Supporting this diversity in users, content and format is why we created Course Builder.

Hosting the platform on App Engine has provided additional capabilities that are essential for our users, particularly colleges and universities. It's possible to brand a MOOC anyway the user wants. The user also owns the relationship with the student directly, and owns any data that they collect to use anyway they like. Given Course Builder is open source, it is possible to easily add customized features. Add to that App Engine's scalability, self-managed hosting and the extensible component architecture built into Course Builder, and you have a powerful, flexible platform that can support any number of students and any type of content.

During 2012 and 2013 we continued to support this diverse user base, and worked to get even more great teachers and innovative learning designers involved in experimenting in this brave new world of online learning. We found that the potential for positive disruption and change is enormous.

As a next step Google announced in September 2013 a new partnership with EdX, the not-for-profit online learning initiative, to jointly develop the edX open source learning platform, Open edX, and expand the availability of the platform and its learning tools to individuals and institutions around the world. In collaboration with Google, edX will build out and operate MOOC.org, a new site for non-xConsortium universities, institutions, businesses, governments and teachers to build and host their courses for a global audience. This site will be powered by the jointly developed Open edX platform.

Google will work on the core platform development with leading experts from many edX partner institutions, including MIT, Harvard, UC Berkeley, Stanford, University of Western Australia, University of Queensland, and Tsinghua University. In addition, edX and Google will collaborate on research into how students learn and how technology can transform learning and teaching on campus and beyond.

This new site for online learning will provide a platform for colleges, universities, businesses and individuals around the world to produce high-quality online and blended courses. MOOC.org will be hosted on the Google Cloud Platform, and Google intends to run courses on this new destination site.