

The Changing MOOC Technology and How It Can Play a Role in the African Educational and Development Objectives

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1. INTRODUCTION

In the last issue, I talked about the rapidly developing Massive Open Online Course (MOOC) technology and I explained how that technology can help Africa in its development objectives by bringing massive education at all levels to a lot more of the population than the current educational technologies and practices put together. In this follow up article, I want to stay with the MOOCs theme and African development, but I intend to discuss the changes that are talking place within the MOOCs technology and how these changes are much better positioned to help improve the African landscape if they are fully embraced.

As I pointed out in my last article, today's African higher institutions and educational landscape are facing problems that are hindering not only high quality research, but also the delivery of education to the masses that need it. The causes are many including (Kizza, IJCIR, Special Issue Vol. 5, No. 2, pp. 6-10):

- Heavy teaching responsibilities leading to - little time for research
- Reluctance of the state to finance broader education and research
- Low pay of teaching staff leading to a list of problems from ineffective teaching to preference of consultancies to improve salaries
- Low and decreasing numbers of senior professors
- Deterioration in the general education standards
- Mushrooming low quality universities
- Low numbers of students with access to higher education

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With these problems growing every passing day, Africa needs to look for new ways of delivering quality education to high numbers of students. The time is just about right. With African economies growing across the continent, together with developing mobile technology, the basic landscape for new models of quality education delivery is at hand.

2. CURRENT PROBLEMS WITHIN MOOC TECHNOLOGY

Although I have advocated for Africa to embrace MOOC technology, I want to correct the impression I might have left in my last article about the wonders of MOOC technology. The reader should have no illusions that MOOCs will solve African educational and development problems, however I want to stress that inspite its current problems, as we discuss below, MOOC technology is still extremely good for the African landscape.

In the last three to four years, main MOOC industry big players like Coursera, Udacity, Edx and others have been experiencing problems that go beyond surging interests and large numbers. In “*The Dark Side of the MOOCs: Big Problems with Massively Open Online Courses*”, Jamie Littlefield (Littlefield, <http://distancelearn.about.com/od/isitforyou/a/The-Dark-Side-Of-The-Moocs-Big-Problems-With-Massively-Open-Online-Courses.htm>) outlines some of these problems to include:

- Impersonal nature – as thousands of students enroll in sections with probably one instructor, the instructor becomes a mere "facilitator" and sometimes absent when there is automated grading. Standard assignments that enhance student interests like interactive group discussions are always washed out of MOOCs instruction delivery.
- Lack of student feedback – with large numbers of students in courses, it is inconceivable to expect, let alone have instructor feedback, a basic ingredient in knowledge delivery.
- Few students make it to the final line – with limited instructor feedback and the absence of peer interaction, the two basic and essential glue of knowledge delivery, large numbers of students tend not to finish the courses they started.
- Missing meaningful target – most MOOCs courses are offered without a final gainful artifact for students like a meaningful certificate beyond a certificate of completion.

As I advocate MOOCs for the African landscape, I am very mindful of these problems that is why, in this follow up article, I want to discuss what is being done and what will be of more value for African instructors intending to start MOOCs courses and African students interested in embarking on MOOCs courses.

3. EVOLVING MOOC TECHNOLOGY

The problems outlined above are forcing the MOOCs providers to find better ways of delivery. The evolving MOOCs model must move away from the original self-formative model of a MOOC course that has to be online, free -open-, massive and involve enrollment of thousands of students (MOOCs: The evolution of open knowledge, <http://desarrolloweb.dlsi.ua.es/moocs/evolution-open-knowledge>).

Among the changes taking place to add value and credibility to the current MOOC model are:

- MOOC evolving into a MOOR (Massive Open Online Research)- In September, 2013, the University of San Diego's Jacob's School of Engineering announced it was launching what it believed was the first major online course that featured a great deal of massive open online research (MOOR), in addition to the usual coursework. According to the announcement, the course, called Bioinformatics Algorithms — Part 1, was to be offered through Coursera and was to give students a chance to work on targeted research projects

under the guidance of “prominent bioinformatics scientists” from all across the globe (Hosler, Aimee, <http://www.emergingedtech.com/2014/01/massive-open-online-research-the-mooc-evolves-into-the-moor/>, January 8, 2014). There are thousands of students around the globe looking for quality research that they would not otherwise get at their home institutions. Courses like these have already a built-in final target for the global graduate student looking for a research project and a credible supervisor. This would be a great service and will create value for the global community interested in MOOCs courses.

- Test-Based Online Credentials – Certificates of attendance and completion. We all know that when something is free, it rarely holds much value. Since its debut, the MOOCs model of knowledge delivery has been free - free content, courses and textbooks. Because it is free, there are limited incentives for providers to offer students something tangible to validate their knowledge and prove their skills. This lack of credentials of accomplishments has led to massive student attrition in most MOOCs courses. One way to address this problem has been for the providers to start offering some form of tangible credentials to students who diligently work hard and complete the courses. Among the forms of credentials, according to Brad Zomick, (Brad Zomick, <http://www.skilledup.com/blog/prove-your-skills-test-based-online-credentials/>) are:
 - *Test-based credentials:* These credentials are earned by a student taking multiple-choice or project-based tests in various skill areas. This type of credentialing is not new. It has been used in the online freelance market and in programming.
 - *Online Badges:* Badges allow individuals to demonstrate job skills, educational accomplishments, online course completion or just about anything else that a badge creator decides. And they are still very nascent and in the very early stages of their growth.
 - *Completion Certificates:* lynda.com, TeamTreehouse and Grovo, among others, offer certificates upon completion of courses. Sometimes, short quizzes or challenges are used to ensure that the student is able to demonstrate real knowledge, although this is rarely (if ever) as robust as test-based credentials.
 - *Online Certificates:* Among alternative credentials, online certificates currently command the highest value and are nearly comparable to a traditional degree. Big and prestigious universities offering MOOCs have started offering these online certificates bearing the institutional symbols. Earning an online certificate from an online college, a company or an industry-specific organization is typically much more involved than the other credentials, and are often connected to specific job functions. Many of these certificates have been created by companies such as Cisco, IBM or Microsoft from their own needs or the needs of their customers.

This is a small glimpse into a changing MOOCs technology landscape to make it more appealing and rewarding to those taking courses in MOOCs or those interested in taking courses. With these and other coming changes, the MOOCs model of knowledge delivery is getting better and more fitting for the African educational landscape.

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