

Chapter 7

Beyond the Phenomenon: Assessment in Massive Open Online Courses (MOOCs)

Amit Chauhan

The Florida State University, USA

ABSTRACT

MOOC course offerings and enrollments continue to show an upward spiral with an increasing focus on completion rates. The completion rates of below 10 percent in MOOCs pose a serious challenge in designing effective pedagogical techniques and evolving assessment criterion for such a large population of learners. With more institutions jumping on the bandwagon to offer MOOCs, is completion rate the sole criterion to measure performance and learning outcomes in a MOOC? Learner interaction is central to knowledge creation and a key component of measuring learning outcomes in a MOOC. What are the alternate assessment techniques to measure performance and learning outcomes in a MOOC? MOOCs provide tremendous opportunity to explore emerging technologies to achieve learning outcomes. This chapter looks beyond the popularity of MOOCs by focusing on the assessment trends and analyzing their sustainability in the context of the MOOC phenomenon. The chapter continues the discussion on 'ePedagogy and interactive MOOCs' relating to 'performance measurement issues.'

INTRODUCTION

The year 2012 has been christened as 'The Year of the MOOC' (Pappano, 2012). Beginning in 2012 alone, MOOC enrollments have surpassed 10 million students in over 1200 courses with over 200 participating universities (Shah, 2013). The growing popularity of 'massive open online courses' (MOOCs) has become the subject of huge debate in recent times as it raises questions on the future of college campuses (Dennis, 2012). The

2001 the MIT initiative of 'open educational resources' (OER) has given way to MOOCs. MOOCs can be distinguished from OER not only in terms of the huge enrollments and stand-alone learning resources, but also the fact that these are courses of short duration ranging from a few weeks to a few months and allow learner participation and engagement for measuring learning outcomes. The learners can form groups and communities to complete the courses and do not owe any allegiance or affiliation to a specific university or

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institution. The students do not pay tuition fees and neither is there any eligibility criterion or pre-requisite to take these courses. Learning is self-directed and self-regulated by student motivation, self-efficacy and goal setting. In terms of numbers, registrations for courses on popular MOOCs platforms – *edX* (<https://www.edx.org>), *Coursera* (<https://www.coursera.org>) and *Udacity* (<https://www.udacity.com>) have surpassed 100,000 students (Siemens, 2013).

This chapter discusses the MOOC phenomenon in contemporary settings and the road ahead. With more and more universities launching MOOCs, there is a continuing debate whether the MOOC model works and what are the learning gains for students? While the popularity and enrollments in MOOCs have grown in recent years, MOOC completion rates are abysmally low (Jordan, 2013; Kolowich, 2013a) compared to the huge enrollments. Given the low completion rates, are completion rates the only standard criteria for measuring learning outcomes? What is the assessment criterion to measure learner success in a MOOC? This chapter profiles the MOOC learners in the context of performance measurement in a MOOC and explores the current trends in assessment and certification, their future scope and sustainability in measuring learner success in a MOOC.

BACKGROUND

Stephen Downes and George Siemens are known as the two pioneers of the first MOOC (Liyana-gunawardena, Adams, & Williams, 2013; Becker, 2013; Cabiria, 2012; Kolovich, 2014; Tamburri, 2014). In 2008, their course ‘Connectivism and Connective Knowledge’ (CCK08) at the University of Manitoba, Canada was offered online for free and saw a huge jump in enrollments with a total of 2,200 students signing-up for the course (Fini, 2009). These students were from all over the world and did not receive any feedback from

the instructors or any course credit (Siemens, 2013). CCK08 utilized multiple Web technologies and platforms for hosting the instructional resources. *Wikis* and *blogs* were used for posting announcements and course links whereas *Moodle* (<https://moodle.org>) and *Elluminate* ‘learning management system’ (LMS) were used for discussion forums (Downes, 2009). The students were free to create, share, and use resources for their own learning. As a result, the students formed *SecondLife* (<http://secondlife.com>) communities, Google Groups (<https://groups.google.com>) and created 170 blogs on different platforms. The students also used *Concept Maps* and *Wordle* (<http://www.wordle.net>) summaries to collaborate online for completing the course requirements (Downes, 2009). Data from CCK08 shows active participation and interaction from 14 percent of the total course participants (Mackness, Mak, & Roy, 2010).

It must be noted that similar to CCK08, several course components are used to deliver MOOCs. These include but are not limited to discussion forums, wikis, blogs, videos, groups, online communities and other Web resources for hosting learning materials, collaboration and support. The resources can be accessed anywhere, anytime via internet on PCs, tablets, and mobile devices. The learners are in complete control of their learning and have the leverage to choose and select any online medium for achieving their learning goals. MOOCs thus, offer much greater control and flexibility to the learner when compared to traditional classroom setting (Kop, 2011).

ePEDAGOGY: xMOOCS AND cMOOCS

MOOCs can be primarily classified into two categories - xMOOCs and cMOOCs. This broad categorization is based on the pedagogy or instructional model used to deliver the course. In 2011, Stanford University launched three com-

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