

Editorial: Massive open online courses (MOOCs): Disrupting teaching and learning practices in higher education

Although the higher education sector is currently facing economic austerity measures globally, with the threat of closure for some, higher education institutions are simultaneously being driven to increase intake, as well as to improve throughput and graduation rates. In addition, there is increasing pressure on these institutions to widen participation to those who were previously excluded from gaining physical and epistemological access to higher education (Bali, 2014a; Burke, 2013). It is possible that these institutions may see massive open online courses (MOOCs) as one way of addressing these challenges; however, the relationship between MOOCs, increasing and widening intake, and improvement of throughput and graduation rates remains fuzzy. MOOCs, for example, are notorious for having enormous attrition or dropout rates, not recruiting student interests, low motivation of students and lacking payment incentive (Billsberry, 2013; Koller, Ng, Do & Chen, 2013; Kolowich, 2013; Lindeore, 2013). They are also seen as suitable for learners who already have a grounding of knowledge in a field and who are financially well off (Laurillard, 2014; Times Higher Education, 2013a). It is evident that not all scholars in the field of technology-enhanced learning are equally enthusiastic about the extent to which MOOCs can provide solutions for the current challenges faced in the higher education sector. George Veletsianos (2013), for example, cautions that the realities of open online courses may in fact differ from intended outcomes. Diana Laurillard, another eminent scholar in the field of teaching and learning with emerging technologies, critiques MOOCs as “21st-century answer to the public libraries of the 20th century” (Times Higher Education, 2013a) and Tsigaris (2013), a professor of economics in Canada, sees them as merely a good and cheap alternative to textbooks. Ethical concerns regarding exploitation of students on MOOCs have also been raised (Marshall, 2014). These viewpoints clearly show the need for more critical engagement on MOOCs and hence, this special issue showcases work on how MOOCs are *disrupting* teaching and learning practices.

Despite the increasing availability, interest and expectations of MOOCs, both their economic justification and their pedagogic worth remain largely unexplored (Andersen & Ponti, 2014; Lane, Caird & Weller, 2014; Sharples *et al*, 2013; Siemens, Irvine & Code, 2013; Veletsianos, 2013). While MOOCs bring together traditional distance and online education, both of these have well-established economic and pedagogic models. MOOCs, on the other hand, are both free and accommodate unlimited numbers of participants, are non-formal (Bates, 2014) and expect no explicit commitment by participants, thus shifting commitment and consequences to institutions. Clearly, the sustainability of such a model of education needs discussion. From the time of the first MOOC entitled “Connectivism and Connective Knowledge” by

George Siemens and Stephen Downes in 2008, which had a paid-for cohort and yet at the same time opened the course to unlimited numbers of people to freely participate (Cormier & Siemens, 2010), until today, many variants of MOOCs have emerged in different contexts such as the USA, the UK and Europe (Academic Cooperation Association, 2013; Kolowich, 2013; Times Higher Education, 2013b), with diverse purposes and outcomes. For example, there are distinctions between two broad categories of MOOCs—connectivist MOOCs emphasising creative, engaged and networked learning for knowledge generation and well-financed MOOCs using traditional teaching through video presentations and quizzes for knowledge duplication, created largely by well-financed elite institutions (<http://tiny.cc/g17gwx>). Recently, other initiatives such as distributed open collaborative courses, which use feminist pedagogical principles (<http://tiny.cc/g17gwx>), small private online courses (<http://tiny.cc/g17gwx>), where the course is free but the participants are limited and selected, and also hybrid MOOCs (Ross, Sinclair, Knox, Bayne & Macleod, 2014) offer competing models to MOOCs. Those engaging in a MOOC have the choice of seeing the course through or dipping in and out of it, depending on their circumstances and interest in the topic.

The increasing variants of MOOCs among both traditional distance institutions and contact institutions have created an urgency to revisit the concept of MOOCs with the view to understanding MOOCs not merely as a disruptive practice, but its potential as a practice for educational transformation in the 21st century. One of the dilemmas regarding MOOCs is that while being a potential tool for democratisation of knowledge, they also present a threat to higher education institutions, which are not well resourced and thus not in a position to offer high-quality open and free courses (Edsurge, 2013). MOOCs do have the potential to be disruptive, but generally it is only elite institutions that are financially viable who can consider offering them in the first place, as they are generally expensive to run, especially if conducted in pedagogically sound ways (Kop, 2011; Siemens, 2012). One may well ask then, whether in this climate of economic austerity, is it financially viable to invest large amounts of resources into courses where there may be less or no commitment (Koller *et al*, 2013)? While some institutions are seizing opportunities afforded by MOOCs, institutions with little capacity to match the deluge of high-quality open and freely available courses may need to either appropriate MOOCs for their own purposes or develop some alternative plans. It can therefore be inferred that institutions may have different reasons for offering MOOCs including fear of being overtaken by more economically powerful institutions or countries or perhaps, more altruistically, the need to be socially responsive to society. However, this agency still needs to be probed.

The two questions these institutions face is about what the future holds for them and whether it will be possible for such poor institutions and MOOCs to coexist. If so, would MOOCs redefine new roles for institutions? We argue that although 2.5 of the 7 billion people in the world use the Internet, the amount of focus and commitment required to consistently follow a course online cannot be taken for granted. There is therefore a need to understand how learning happens, what type of learning MOOCs foster, how such learning could be facilitated, how that learning is assessed and what models could be developed to guide

educators who moderate MOOCs for specific learning outcomes (see Brennan, 2013, Knox, 2014 and Veletsianos, 2013 for examples of critical views of MOOCs and Morris & Stommel, 2013 for a discussion about a MOOC on MOOCs). This special issue will address the educational conundrum of MOOCs with the aim of providing insight on the uptake and appropriations of MOOCs for pedagogically informed practices (Bali, 2014b).

To the extent that MOOCs are open, free and non-credit bearing, they may be potentially disruptive of traditional teaching and learning modes of higher education. While this disruption may have positive spin-offs, there are currently few empirically grounded studies that show evidence of MOOCs' effectiveness, for what courses they are effective, the conditions in which they are effective and models for their sustainability. The lack of pedagogical frameworks to guide institutions and individual practitioners creates barriers to sustainability models of MOOCs. Thus, educational merits of MOOCs largely hinge on finding answers to difficult questions—and this special edition seeks to collate these answers in the papers that appear here. The papers in this issue contribute to intellectual debates on the concept of MOOCs as well as provide guidelines for educators and researchers on this *disruptive* education phenomenon.

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