



## Special Themed Issue: Assessment and Accreditation in MOOCs

### Editorial: The Weakest Link - Assessment and Accreditation in MOOCs

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Special Theme Editors

In his blog, the renowned distance educator Tony Bates makes known his utter disappointment with developments in relation to Massive Open Online Courses (MOOCs) suggesting that its proponents, “mostly Ivy League institutions in North America have simply ignored the research and evidence we already have on what works in online distance education to create MOOCs in their own image, and re-invent online learning in their own image to maintain their perceived superiority in all things higher educational” (see <http://www.tonybates.ca/>).

Yet there are equally strong claims from others that MOOCs are the most important educational technology in 200 years (see Regalado, 2012), and that their emergence heralds a “golden era” of e-learning (see Grossman, 2013). Furthermore Sebastian Thrun, a co-founder of the MOOC platform Udacity for instance, declared boldly that MOOCs are “the answer to a broken education system” (see Adams, Yin, Madriz, & Mullen, 2014; Wolfson, 2013).

What is it about MOOCs that has some people completely and utterly spurned by the concept and its development, and others proclaiming it as the saviour of a broken education system? What is it about MOOCs that has most of us listening up and arguing with each other intensely? Why has this concept received so much attention and interest—rightly or wrongly—from technologists, educators, educational administrators and governments alike?

Let’s face it—there is no denying, that one positive outcome of this MOOC mania, both in peer-reviewed outlets as well as in the popular press and the blogosphere, is the relocation of discussion and debate around learning and teaching with technology in higher education to the front and centre. An early conclusion from this discussion and debate we can draw is that the MOOCs of today are going to morph into many different forms, and very likely, back to and settling down with the realization that *massive, open, online courses* are not really a very good answer to what ails our education systems today worldwide (see Fisher, 2014).

You see -- apart from the initial explorations by George Siemens and Stephen Downes into the pedagogical potentials of connectivism and connective knowledge building via the Internet and the Web—MOOCs per se, were never really considering open access or opening up educational practices to all those who wanted it (see Downes, 2008; Siemens, 2008). If that were the case, then the Internet and the World Wide Web was the wrong delivery technology to pick as it discriminates

against those without access to it. Siemens and Downes were onto promoting the idea that knowledge building is a participatory and social process which is the outcome of discussion and debate among participants (Siemens, & Downes, 2011). In order for this to happen, participants in the process needed to be connected to each other and in this network everyone, including learners and their teachers were simply fellow nodes (Knox, 2014).

However, subsequent iterations of MOOCs actually failed to prosecute this agenda of *collective knowledge building* with any level of integrity. Soon after the emergence of the first MOOCs, the idea was quickly hijacked by online technologists as an opportunity to promote the use of the Internet and the World Wide Web for educational purposes. Page: 2 Educators and educational administrators saw an opportunity in it to promote themselves and their brand, and offer more for the price of less even if the students didn't need or want it (see Baggaley, 2014a). They saw in it also an opportunity to contain the escalating costs of higher education while still expanding into new markets, even though these were confined to those with access to the Internet. See report by the Presidents' Council of Advisors on Science and Technology to the US President (<http://1.usa.gov/IVkaa6>).

If Siemens and Downes had proposed their connectivist ideas in isolation of the technological affordances of the Internet and the Web, their ideas might not have been seized on so voraciously (Baggaley, 2014b). In the MOOCs that followed, critical attributes of the concept such as *connection, collaboration and co-creation*, referred to as *participatory pedagogies* were never really pursued or developed in any significant way (Andersen, & Ponti, 2014). Most of the MOOCs that are currently being offered are a little more than repetitions of MOORFAPs—Massive Open Online Repetitions of FAiled Pedagogy—comprising no more than recordings of lectures given in regular classes held on-campus, poorly designed online multiple choice-type quizzes and poorly orchestrated peer-grading of the products of student learning activities (see Devlin, 2012; Hake, 2013; Naidu, 2013). This comprises an *inefficient, ineffective and unengaging* use of what are pretty powerful online learning technologies, especially their opportunities for synchronous and asynchronous communication.

The risks of this kind of a pedagogical initiative are high and they have not been adequately considered or ascertained (Marshall, 2014). These include poor pedagogy with ineffective and inefficient assessment of learning outcomes, poor feedback and accreditation of achievement mechanisms including ethical issues around each one of those factors. Assessment of the achievement of learning outcomes and providing feedback to learners are difficult, time consuming and costly in the best of circumstances, and especially in the case of MOOCs (see McGreal, Conrad, Murphy, Witthaus, & Mackintosh, 2014). Sound assessment strategies not only should aim to assess achievement but serve to promote learning. And relevant and timely feedback is not only critical but instrumental in promoting learning and achievement (Kirkwood, & Price, 2008).

We devote this special issue of the journal on these three topics; *assessment, feedback, and accreditation*. Key questions and issues in relation to them are explored in the following paragraphs.

**Assessment.** Strategies that work well in the confined space of the face-to-face classroom and its relatively small numbers will not work as well within the context of MOOCs. While carefully

designed and developed multiple choice-type questions can serve as effective tools for the assessment of various types of knowledge and skills ranging from factual and procedural knowledge to higher order problem-solving and application skills, they are limited to the assessment of skills in the cognitive domain and deficient in addressing metacognitive, affective and motor skills. MOOCs with a reliance on multiple choice-type questions will be ineffective at assessing the full range of learning outcomes.

**Feedback.** The provision of relevant and timely feedback to learners is always a time-consuming and costly activity. In the case of MOOCs much of this is automated, and some of it passed on to the peer-group and to the discussion forum. While this strategy might work well with a group of well-resourced high achievers and in areas where the subject matter is not as clearly defined, they will not work with novice learners with meagre learning resources and in highly technical areas. In such educational contexts, students would much rather hear it from their teachers and not have to figure it out from others who are likely to be just as misinformed or misguided.

**Accreditation.** Current iterations of MOOCs by nature are open to registration from anyone with access to the Internet. Naturally, this means that anyone with any level of prior knowledge, qualifications and experience can enrol in a MOOC. Without the pre-requisite skills, non-start and attrition is likely to be high in MOOCs. The completion of the course and its learning and assessment activities is also likely to be problematic. For the moment ascertaining the legitimacy of the person taking a course, doing and submitting the assignments is open to all kinds of abuse. As long as this situation prevails, the award of credits for the work completed is going to remain problematic and raise a number of issues to do with establishing the identity of the student, applying standards for judging performance and practices for awarding credit. It will also include ethical issues around duty of care for providing adequate support and feedback to participants consistent with the expectations of the course and promises made to prospective students, not only by the teachers, but the whole organization offering the MOOC.

**Weakest link.** So far, the winners in this mad rush to offer MOOCs are organizations, individual lecturers, and venture capitalists. The weakest link remains *assessment, feedback and accreditation* of the students who have been promised much but offered much less as on-campus lecture-based courses are being repackaged into online courses for a much larger audience. Worst of all are those without reliable access or any access to the Internet. For them there is nothing, not even a fighting chance, despite the rhetoric from MOOC-sayers that this is about open educational practices and making higher education accessible to all and free of any costs regardless of their condition or ability to pay (see Massachusetts Institute of Technology, 2012).

The contributions in this special themed issue seek to shake not only our conscience but real practices about effective assessment and accreditation for MOOCs. Some themes that have been selected for this current issue are related to: affordances of automated feedback, peer review of effectiveness, emerging trends in MOOCs assessment and the influence of MOOC rewards in participants' motivation. The papers offer an interesting triangle of knowledge based on procedures and techniques, specific content and motivational aspects on MOOCs.

For instance, the paper about "Massive Open Online Courses: Emerging Trends in Assessment and Accreditation" by Amit Chauhan from Florida State University, USA reviews the emerging ways in which MOOC assessment goes beyond automated techniques in their application to support learning processes. Its main contribution to the topic of the special issue is that course completion is not necessarily the goal of the massive courses because these courses can offer other learning aspects but completion can be achieved as a result of good assessment techniques.

The article "Estrategia para el seguimiento y evaluación de los aprendizajes en un MOOC de introducción al álgebra" by Teresa Sancho and Vanesa Daza from Universitat Oberta de Catalunya and Universitat Pompeu respectively from Spain presents a course experience analysis where effectiveness of automated feedback and peer review practices are analysed in a mathematical context. Related to the topic of the special issue the paper contributes to understand the assessment of contextual variables that can influence in a MOOC proposal and the use of a peer review rubric-based as a final assessment technique of the course.

The paper "Motivación en la educación masiva online. Desarrollo y experimentación de un sistema de acreditaciones para los MOOC" by Enrique Sánchez and Juan José Escribano from Universidad Europea Spain highlight the motivational elements as the most important asset in all MOOC experiences. Motivation in this framework could be prestige of the badges or the accreditations but it is not clear if the current accreditation awards motivate students enough to finish or enrol them in new massive courses in the future. Their major contribution of the paper on the issue is the importance of individual expectations and emotional aspects in the decision for starting and persevering in a massive course advocating for more internal motivation and delayed rewards.

Although the last paper entitled "Experiencia en evaluación de los alumnos en cursos en línea: ¿variabilidad o concordancia entre los tutores?" written by Irma Jiménez, Raúl Ponce, Arnulfo Irigoyen, Silvia Landgrave, Laura Baillet and Tomás Chapa from the Universidad Nacional Autónoma de México is not explicitly about MOOCs it tackles an important issue in the assessment of open courses. This concerns the need for an objective reference for feedback and grading. Many massive courses seem to have free or open assessment done by course colleagues, so the paper analyses the level of concordance between evaluators and proposes an external tool to improve the assessment results, which can be also used in massive open courses.

We hope that you find these contributions, and the contents of this special themed issue interesting and useful. Enjoy

Som Naidu and Elena Barbera (Guest Editors)

## References

- Adams, C., Yin, Y., Madriz, L. F. V., & Mullen, C. S. (2014). A phenomenology of learning large: the tutorial sphere of xMOOC video lectures, *Distance Education*, 35(2), *Distance Education*, 35, <page nos.>. doi:.
- Andersen, R., & Ponti, M. (2014). Participatory pedagogy in an open educational course: challenges and opportunities, *Distance Education*, 35(2), *Distance Education*, 35, <page nos.>. doi:.

- Baggaley, J. (2014a). MOOCs: digesting the facts, *Distance Education*, 35(2), *Distance Education*, 35, <page nos.>. doi:
- Baggaley, J. (2014b). *Personal Communication*.
- Devlin, K. (2012, December 4). The Darwinization of higher education [Web log post]. Retrieved from <http://bit.ly/1fmJHSI>
- Downes, S. (2008). Places to Go: Connectivism& Connective Knowledge. Retrieved from <http://bit.ly/1iyMOIO>.
- Fischer, G. (2014). Beyond hype and underestimation: identifying research challenges, *Distance Education*, 35(2), *Distance Education*, 35, <page nos.>. doi:
- Grossman, S. (2013, July 16). Bill Gates discusses MOOCs at Microsoft Research's Faculty Summit [Blog post]. *Wired Campus*. Retrieved from <http://bit.ly/1hLAZhv>.
- Hake, R. (2013). Is higher education running AMOOC?" Retrieved from <http://bit.ly/1pII9y2>.
- Kirkwood, A. and Price, L. (2008). Assessment and student learning: A fundamental relationship and the role of information and communications technologies, *Open Learning*, 23(1), 5-16.
- Knox, J (2014), Digital culture clash: "massive" education in the *E-learning and Digital Cultures MOOC*, *Distance Education*, 35(2), *Distance Education*, 35, <page nos.>. doi:
- Marshall, S. (2014). Exploring the ethical implications of MOOCs, *Distance Education*, 35(2), *Distance Education*, 35, <page nos.>.doi:
- Massachusetts Institute of Technology. (2012, May 2). MIT and Harvard announce edX. Retrieved from <http://bit.ly/1nXxLq4>.
- McGreal, R., Conrad, D., Murphy, A., Witthaus, G., & Mackintosh, W. (2014). Formalising informal learning: Assessment and accreditation challenges within disaggregated system, *Open Praxis*, 6 (2), April-June 2014, pp. 125-133. Retrieved from <http://bit.ly/1frw9eC>.
- Naidu, S. (2013) Transforming MOOCs and MOORFAPs into MOOLOs, *Distance Education*, 34(3), 253-255, DOI: 10.1080/01587919.2013.842524
- Regalado, A. (2012, November 2). The most important education technology in 200 years. *MIT Technology Review*. Retrieved from <http://bit.ly/1nUzYZR>.
- Siemens, G. (2008). Learning and knowing in networks: Changing roles for educators and designers. Retrieved from <http://bit.ly/1hJynVC>.
- Siemens, G., & Downes S. (2011). Connectivism and connective knowledge (course:CCK11). University of Manitoba. Retrieved from <http://cck11.mooc.ca/>
- Wolfson, L. (2013, June 18). Venture capital needed for 'broken' U.S. education, Thrun says. *Bloomberg News*. Retrieved from <http://buswk.co/PJS58G>.

### **Recommended citation**

Nadiu, S. and Barbera, E. (2014). Editorial: The Weaknest Link: Assessment and Accreditation in MOOCs. In: *Digital Education Review*, 25, 1- 5 [Accessed: dd/mm/yyyy] <http://greav.ub.edu/der>

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