

# Talking about quality

## Massive misalignment: the challenges of designing and accrediting MOOCs

Benjamin A. Brabon

Reader in English Literature and Digital Education,  
Edge Hill University

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### Introduction

The intense interest in massive open online courses (MOOCs) over the last few years has fuelled debates about their 'disruptive' potential and impact upon more traditional conceptions of higher education. Seen by some commentators as part of a digital revolution and embraced by a number of research-intensive institutions through platforms such as Coursera and FutureLearn, MOOCs have been celebrated for opening up education on an unprecedented scale, recognised for providing transformative learning experiences and championed by governments.

On the other hand, there have been significant concerns raised about the function of MOOCs, as for some they represent a paucity of educational innovation, a passing fad and a branding exercise that is nothing short of, in the words of Sebastian Thrun, 'a lousy product' (2013). This so-called 'MOOC hysteria' has raised questions about, among other things, pedagogy on a massive scale, the MOOC student experience, new business models for higher education and quality assurance.

This paper focuses on the pedagogical opportunities and challenges of designing MOOCs, as well as exploring issues of accreditation and quality assurance. In particular, the paper asks whether conceiving of MOOCs as part of a digital revolution in higher education that opens up free education for all is, as emerging data suggests, misleading. As the identity of the MOOC 'unknown learner' begins to be revealed, it is evident that the market for MOOCs is not that of the traditional undergraduate or college student. On the contrary, with upwards of 70 per cent of MOOC students already educated to degree level, are MOOCs an example of course misalignment on a massive scale?

At the same time, as many MOOCs make only a fleeting reference to learning outcomes and levels, are MOOCs fit for purpose? Paradoxically, as I will argue in this paper, by addressing these questions of alignment and quality assurance, the learning dynamic is transformed and the pedagogical appeal of 'connectivism' is in danger of being muted.

## Questions of design

Following Bower and Christensen's conception of 'disruptive innovation' (1995), there has been significant interest in MOOCs as a 'disruptive force' in higher education. Wiley's suggestive blog on *The MOOC Misnomer* (2012), Yuan and Powell's white paper on *MOOCs and Open Education: Implications for Higher Education* (2013) and most recently, Bayne and Ross' report for the Higher Education Academy (HEA) on *The Pedagogy of the Massive Open Online Course: the UK view* (2013), all provide valuable insights into the tensions, ambiguities and opportunities afforded by MOOCs.

For Yuan and Powell, MOOCs have 'forced established providers to re-visit online learning and open education as strategic choices for the future'. From pedagogical and policy perspectives, MOOCs have focused attention on ideas of 'openness' and free or low cost educational choices that might currently reside alongside existing on-campus provision or part of an extended blended approach to learning.

In a UK context, MOOCs have contributed to ongoing discussions about alternative higher education providers and the diversification of educational provision away from traditional bricks and mortar institutions. Within this context, as Wiley suggests, most MOOCs fail in some way to fulfil the acronym and as such, the name itself is perhaps misleading and open to appropriation - in part, because MOOCs reside beyond the traditional regulatory frameworks of higher education.

In addition, the 'massiveness' of some MOOCs - from the 2,300 students who participated in Siemens and Downes' pioneering MOOC 'Connectivism and Connective Knowledge' in 2008 to the 160,000 students on Thrun's 'Introduction to AI' in 2011 - has captured the media's attention in an unprecedented manner. The impact of MOOCs and the hype that surrounds them often seem to precede the education content and the pedagogical motivations for designing and delivering them.

## The mode of delivery

The role of MOOC platforms in the development of MOOC pedagogies and in the specific mode of delivery is yet to be fully quantified and assessed. While questions of content and quality are still up to a point controlled by each partner institution, there are clear and emerging pedagogical and ideological drivers that are the foundation for each platform, from FutureLearn's focus on storytelling to Coursera's philanthropic agenda.

As has been noted by the team running the University of Edinburgh's MOOCs in the *Online Newsletter* (2012) of the Association for Learning Technology (ALT), Coursera embraces relatively conservative online educational practices. At an individual course level, these questions of course planning and design are influenced by the platform and the institutional context, but the pedagogical 'look' of MOOCs has some common features that might indicate a lack of innovation. For example, the widespread adoption of the 'flipped classroom' has become the MOOC gold standard.

Also, the relative brevity of MOOCs, from two or three weeks to an average within the UK of six weeks, might be considered a move towards what has been described as 'espresso' learning. This raises questions about the value of MOOCs in relationship to traditional degree programmes and quality assurance processes and how readily they might be mapped onto existing blended learning provision.

## The value of a MOOC

In particular, while there is emerging evidence from Coursera to suggest that some employers in the USA are accepting MOOCs as an indicator of continuing professional development, there is yet to be any systematic consideration of what MOOCs might be worth in terms of recognition for prior and experiential learning. On the one hand, there seems to be a significant opportunity here to utilise MOOCs to capture and quantify higher level skills in both generic and subject specific forms. For example, their application as a vehicle to transform the idea of a three year degree by extending a blended approach to learning from campus to a place of work, will appeal to some employers as students will be skills-ready.

On the other hand, without anything more than a 'light touch' consideration of quality assurance processes, non-credit bearing MOOCs might serve to undermine the value of accreditation from recognised higher education providers. MOOCs place the challenges that higher education faces in a twenty-first century market economy, where the provision of education, quality assurance and certification are no longer the exclusive preserve of universities, at the centre of debates about what constitutes a university-level education in a digital age.

If the market will decide, then to date, there is little evidence to suggest that MOOCs will revolutionise higher education or school leavers. The identity of the MOOC 'unknown learner' is starting to be shown as highly skilled, with the majority educated to at least degree level. If course alignment or integrated course design revolves around the question of knowing your learner or audience, as well as creating appropriate learning objectives (Biggs 1999; Fink 2003), most MOOCs have been misconceived.

Beyond what might be described as reluctance in many MOOCs to deploy the terminology associated with best practice, from levels to learning outcomes, MOOCs seem to foster misalignment.

## Pedagogies of a market economy

In their current form, there is a clear disjunction between the purpose and suggested application of MOOCs. This has been exacerbated by media hype that has often framed debates about MOOCs in the context of either their 'massiveness' or lack of fees. However, what might be conceived here as their potential to foster low-end disruption and within a UK context, to challenge a £9,000 fee model, is misguided because the majority of MOOCs are not in their current form easily identifiable as part of an undergraduate curriculum.

Non-crediting bearing MOOCs fail to reveal to undergraduate students the programme mapping and quality assurance that would wholly convince them to embrace MOOCs as part of a recognisable degree programme. In this respect, MOOCs fail to truly offer low-end disruption because the product is misaligned.

Although Coursera's move to provide a 'specialisation' track signals an attempt to map out programmes through a nod to more traditional higher education structures, this is a conservative approach that is yet to prove its ability to democratise education. The suggestion here is twofold. First, the data from MOOCs so far suggests that these traditional approaches and structures might serve as an impediment to attract students from non-traditional backgrounds or without certain skills acquired through prior or experiential learning. Secondly, if the MOOC student demographic is transformed to reach beyond students with higher level skills, then the often 'light touch' approach to quality assurance might open the door to a two-tier system of higher education, where a form of educational colonialism is fostered at the heart of this process of democratisation.

In other words, in the rush to open up higher education to new markets, MOOCs may be involved in exporting a specific brand of Western education that may not be as rigorously scrutinised as on-campus provision. The solutions to these challenges extend beyond debates about MOOCs, but MOOCs have served to intensify these deliberations about access to higher education and the future of education in a digital age.

## Vampire Fictions: a MOOC in practice

From my own experience convening MOC1001 Vampire Fictions, the UK's first undergraduate credit-bearing MOOC, the data suggests that higher education is at a crossroads.

MOC1001 developed out of my research interests in Gothic fiction, my work on a HEA project entitled e-Gothicist and my teaching on an existing Level 5, 20-credit, campus-based module on vampire fictions.

First and foremost, my aim in creating this MOOC was subject specific. I was eager to open up the study of vampire fictions to a broader range of students and to share the successful experience of the on-campus version with learners beyond Edge Hill. The development of the MOOC was driven by the desire to utilise the positive aspects of 'connectivist' pedagogies (cMOOCs) while being mindful of institutional quality assurance processes and the value of levels and accreditation.

In this way, there was in some respects a pre-existing tension between 'openness' and 'containment' that had to be navigated at every stage of the process of planning and delivery. The result, as Bayne and Ross acknowledge in their HEA report on MOOC pedagogies (2013), was the persistent nature of the teacher as the primary point of contact in the learning journey and the re-emergence of more traditional learning structures and patterns. In part, this reveals that quality assurance processes can tame connectivist pedagogies.

The course data was in many ways consistent with a model witnessed across the majority of MOOCs, but further refined through the increased challenges associated with benchmarked critical skills, defined learning outcomes and quality assurance in general, to the point where 100 per cent of students completing the course were already educated to degree level.

Furthermore, the motivations and aims of the students participating in the MOOC were non-traditional, in so far as for most students it was not about the application of subject-specific skills and the building of an accredited degree profile. While the defined level of study was appealing and reassuring to some students, feedback indicated that the creative and critical skills associated with the humanities more broadly, were the primary motivators for engaging with the MOOC.

This can be acknowledged as a success for the humanities' role in the creative economy, but the challenges remain as to how traditional degree structures and regulatory procedures can be utilised effectively to add value to MOOCs without muting connectivist intentions.

## Conclusions

Ultimately, these paradoxes of MOOC design and delivery revolve around the tensions between value, to the student and the employer, and openness. The obvious answer in the short-term may be the full integration of MOOCs into institutional flexible and blending learning strategies but, ultimately, this overlooks the opportunity to reconceive how higher education might respond to the ever evolving demand for skills-ready employees and learning as a lifelong journey that continues beyond graduation.

Without doubt, quality assurance has a role to play in guaranteeing that MOOCs are more than just experiments in learning for interested, skilled individuals. However, this needs to be geared towards rewarding formative learning and crediting experiential skills through existing mechanisms, such as Individual Learning Plans and reimagining the idea of the campus degree.

In other words, MOOCs are already part of the ongoing evolution of higher education in the twenty-first century, but they have the potential - not in themselves but in the questions they raise about learning more broadly - to ferment a lasting revolution that will transform global education for generations to come.

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## A response to Benjamin Brabon's paper by David Kernohan

David Kernohan is senior co-design manager at JISC where he works on online and open education within the eLearning Innovation team. David writes in a personal capacity.

### The Quality of Disruption

In April 2014, more than 110 Massive Open Online Courses (MOOCs) launched across at least 40 platforms. For all of the talk of a MOOC backlash, we are living through a period of MOOC ubiquity. From a for-profit like FutureLearn, through platforms owned by publishers and technology vendors, to a small group of academics with a wordpress blog - learners, educators and institutions have more opportunity than ever before to participate and share in learning.

Benjamin Brabon's paper poses the question of quality. What is the experience offered to MOOC learners? What steps do institutions and platforms need to take to ensure that those who have signed up to courses stick with them and are able to realise the benefits of having completed them?

To respond to this issue, I would like to take a look at the two underlying ideologies underpinning the MOOC. From the world of business and market entry: the concept of disruption, and from the world of educational theory: the idea of connectivism.

Harvard Business Administration researcher Clayton Christensen, first postulated that idea of disruption, and he applied it to education in his 2008 book 'Disrupting Class'. Simply put, the concept of low-end disruptive innovation suggests that any established market can be destabilised by the entry of a new actor offering a similar but inferior product at a vastly lower price. This new actor initially serves a niche interest and does not provide the features of premium products in the marketplace but through repeated innovation it expands and improves to serve wider needs and increases profitability.

Examining this idea it is possible to situate the MOOC at the early part of this lifecycle. The price tag is zero for the vast majority of participants, but some are beginning to pay extra for enhanced services. However, as a disruptive entrant the 'quality' of the MOOC offer remains low compared to existing (and much more expensive) educational offer.

But - as Christensen, and Sebastian Thrun of Udacity, later realised - low quality education serves an entirely different market. There was little crossover between those taking MOOCs (predominantly graduates, from western countries and with affluent - in global terms - backgrounds) and the wider global demand for educational opportunities. Among those who were taking MOOCs, very few were completing the course that they signed up for.

At the launch of the FutureLearn platform (September 2013), Martin Bean was questioned about the 'drop-out' issue in particular. His response is particularly revealing about the place of disruption within the MOOC world:

Isn't it just so incredibly sad, that when you've [got] all this disruptive innovation that's going to unbundle higher education and make it accessible in ways never before dreamt of, that we perpetuate terms like failures [and] drop outs?

This is significantly after Christensen retreated from the idea of disruption in education, in a May 2013 white paper. He saw the future as 'blended' or 'hybrid' model, with existing educational institutions incorporating elements of online instruction - very similar to the existing practice of universities and colleges since the late 1990s.

A month after Bean's comments at the launch, and as Brabon notes, Sebastian Thrun also moved to distance himself from the disruptive function of the MOOC.

We were on the front pages of newspapers and magazines, and at the same time, I was realizing, we don't educate people as others wished, or as I wished. We have a lousy product.

A lousy product, or a 'minimal viable product', is the cornerstone of disruptive practice. But a minimal viable education, clearly, is not attractive.

The first MOOC experiments were also minimal viable products, with parts of what would usually be expected from education not in evidence. The courses led by George Siemens, Stephen Downes and others were an attempt to explore the idea of connectivism. Even these originators do not yet claim connectivism as a fully-fledged theory but what does exist of it seems at odds with the replication of mass higher-education offered by many 'MOOCs'.

Connectivism suggests, in brief and massively simplifying a very complex space, that learners are learning from their peers without a designated educator; that each learner acts as a node in a network that can both provide or seek knowledge, skills or experience. (Connectivism also draws on Deleuze and Guattari's conceptualisation of 'rhizomatic' learning.)

The early MOOCs were primarily aimed at digitally-savvy, confident educators and produced a great deal of writing (most notably blogging) and research which has been used to further refine the underlying theory-in-creation. Though often cited as a MOOC pedagogy, the vast majority of commercial MOOCs are closer to traditional models of mass higher education.

I agree with Brabon that quality assurance processes can tame connectivist pedagogies but the 'persistent nature of the teacher as the primary point of contact' is a design feature of the MOOC rather than of quality assurance. From the earliest press releases the role of the 'rockstar professor' has been paramount. Indeed, Udacity focuses on the teacher rather than the institution they work for. Even within connectivist MOOCs the 'course leader' looms large, not least for reasons of marketing and promotion.

The major constraint on MOOC structure is the need to gather data on learners. This idea underpins everything from assessment design to the very idea of offering a course with a defined start and end date. As yet, very little research has stemmed from this data collection. There has been some suggestion that shorter videos are more attractive to learners than longer ones but nothing that is either robust or game-changing.

And even if such an insight did emerge, it would be predicated on the activity of the wider student population being similar to that of the kind of learner that completes a MOOC. Both connectivism and disruption, the two founding ideologies of the MOOC, are actively opposed to a teacher-led or institution-led quality assurance. The actuality of MOOC practice may offer some opportunity for assurance around pedagogic planning, assessment and learning resources. However this would both raise the cost of delivery and reduce the likelihood of a truly learner-led connectivist experience.

## A response to Benjamin Brabon's paper by Professor Neil Morris

Professor Neil Morris is Director of Digital Learning and Chair in Educational Technology, Innovation and Change at the School of Education, University of Leeds

QAA's UK Quality Code for Higher Education (the Quality Code) sets out the requirements and expectations for providers of higher education, and is a useful starting point for developing quality assurance processes for MOOCs. Many of the issues for MOOCs are common to traditional higher education, and quality assurance measures have already been clearly defined and articulated in the Quality Code. However, the potential size, openness and entirely online nature of MOOCs means that further work is needed to ensure that providers are clear on their responsibilities, and learners are clear about the course's structure, requirements and outcomes. Given the rapidly evolving nature of online education and the interest from professional bodies and employers in recognising these courses, it is imperative that these guidelines are produced and agreed rapidly.

QAA has recently issued a position statement on MOOCs,<sup>1</sup> which sets out higher education institutions' (HEI) responsibilities to maintain rigour and standards when developing and delivering MOOCs, but notes that 'most MOOCs are typically non-credit bearing'.

Benjamin Brabon's article introduces MOOCs, and some of the design and quality issues associated with them. In my view, the following issues will also need to be tackled as MOOCs evolve and proliferate within the higher education sector:

- 1 Quality assuring massive online fee-paying 'courses' or 'whole programmes' offering credit from HEIs.
- 2 Quality assuring online courses (non-credit bearing or accredited) offered on MOOC platforms by non-higher education institutions or HEIs working in partnership with other organisations.
- 3 Recognition of online courses and award of professional qualifications via online courses by professional, statutory and regulatory bodies and employers.
- 4 Quality assuring accredited courses involving substantial peer review elements, unvalidated online assessment methods or examination centres.
- 5 Addressing the requirements for personalisation of the learning experience for learners with differing needs.
- 6 Defining and assuring the standards of professionalism of teaching and teachers on online courses.
- 7 Quality assuring the blending of online courses with on-campus learning opportunities.

In this short article, I will explore and debate some of these issues to support development of appropriate quality assurance policy for the benefit of learners and HEIs.

As QAA recently stated, currently most MOOCs are non-credit bearing, and responsibility lies with the MOOC provider to assure the quality of the courses using existing mechanisms. As Brabon illustrates, there is a need for rigorous scrutiny of MOOCs to avoid a two-tier educational system. However, not all MOOCs are quality assured to the same standard as degree level programmes of study, which require internal and external scrutiny of the course, learning outcomes and assessment prior to approval, articulation of the learning process and outcomes to learners (for example, Key Information Set), internal and external scrutiny of examination questions and marks, and processes for seeking, reviewing and responding to teacher and learner perceptions of the course. At the very least, all MOOCs (including non-credit bearing courses) offered by UK HEIs should adhere to these minimum standards to provide assurance to learners, professional bodies and employers that rigour and academic standards are being maintained.

<sup>1</sup> [www.qaa.ac.uk/Newsroom/News/Documents/QAA-position-statement-MOOCs.pdf](http://www.qaa.ac.uk/Newsroom/News/Documents/QAA-position-statement-MOOCs.pdf)



For credit-bearing online courses a number of additional factors come into play, and would require additional quality assurance measures. The award of credit by an awarding body means that the Quality Code has to be strictly adhered to, and the course would be scrutinised during institutional review. In particular, online summative assessments need to be validated to the user, processes for physical summative assessments (for example, test centres) need to be quality assured and all of the internal and external assurance measures described above would need to be in place, documented and managed through clearly articulated institutional governance mechanisms. In summary, credit-bearing MOOCs would need to be managed and quality assured in exactly the same way as traditional degree-level programmes offered by awarding bodies.

In the most part, these challenges can be overcome by bringing quality assurance for MOOC provision in line with processes for traditional courses. However, in the area of assessment there are significant pedagogic and technological challenges which currently reduce confidence in the quality assurance of MOOCs. These challenges include: (i) Learners whose identity has not been verified; (ii) Learners receiving summative marks from unvalidated peer assessment; (iii) Learners taking non-invigilated online summative assessments; and (iv) Learners taking physical invigilated summative examinations at different times in test centres around the world.

Clearly, technology can solve the first challenge of identity management, but MOOC platforms will need to improve measures to validate the identity of learners taking credit-bearing courses, and provide these data to awarding bodies for scrutiny by the QAA.

Technology and pedagogy will both have to play a part in overcoming the challenge of learners gaining credit from peer assessment. This practice is used within traditional degree programmes, but is normally either formative, or supported by random checking or simultaneous teacher assessment. With large numbers of online learners, only random checking of peer assessed work would be practicable. Technology will be able to assist by checking that peer assessed work meets certain criteria in terms of completion, length and clarity, but quality of assessment and feedback still relies on academic judgment.

In the area of non-invigilated online summative assessments, there are a number of possible technological solutions to assure quality, including identity management, web-cam proctoring, large randomised question banks, timed examinations and controlled web browsers. Again, MOOC platforms will need to assure awarding bodies and QAA that these mechanisms are robust and maintaining standards.

Where learners are taking physical invigilated examinations at test centres, this should be relatively straightforward to quality assure given that this is an accepted practice within traditional degree programmes, providing that the test centre provider provides details of their quality assurance processes, and these are followed and monitored by the awarding body.

An important, but often overlooked area of quality assurance for online courses is the design of the course itself, including the inclusion of learning outcomes, signposting and scaffolding for learners, support and guidance, personalisation of the learning experience and involvement of teachers in the learning process. As Brabon articulates well in his article, current MOOCs vary widely in the quality of their design and support for learners, and the degree of teacher involvement.

Brabon's own experiences demonstrated the tension between quality assurance and pedagogic innovation, illustrating the need for rigour and flexibility in this rapidly evolving area. While these are all areas of active educational research and pedagogic development, QAA will at least need to offer guidance in this area for awarding bodies offering credit bearing MOOCs. In turn, HEIs have a responsibility to ensure solid pedagogical principles and validated instructional design methodologies are employed when designing and delivering online courses.

In summary, while there are technological and pedagogical challenges to overcome as MOOCs evolve and diversify, the existing Quality Code can be used a good starting point for HEIs to assure the quality of online courses for learners, professional bodies and employers. Further development of the Quality Code to incorporate online assessment will support credit-bearing courses.

## About this publication

*Talking about quality* is a series of articles published by the Quality Assurance Agency for Higher Education (QAA) in which experts explore issues of key interest to the higher education sector. In publishing these papers we intend to provoke new ideas, stimulate debate and inform the development of higher education policy. The series will give a platform to experts in the UK and internationally.

The articles published in this series deliberately do not offer a 'QAA perspective' on policy developments. However, we welcome the opportunity to engage with the ideas raised as we develop our own views on key issues.

**By virtue of being a think piece, we invite comments, suggestions, and opinions. You can comment via the QAA website at: [www.qaa.ac.uk/ImprovingHigherEducation/debate](http://www.qaa.ac.uk/ImprovingHigherEducation/debate).**

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Southgate House, Southgate Street, Gloucester GL1 1UB

Tel: 01452 557 000

Email: [enquiries@qaa.ac.uk](mailto:enquiries@qaa.ac.uk)

Website: [www.qaa.ac.uk](http://www.qaa.ac.uk)

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