

# INTRODUCTION: MOOC FUTURES

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## GAPS AND ELISIONS IN MOOC RESEARCH

This collection of essays was commissioned with an eye to the future of open and massive online education: contributors were asked to take a position on current and recent practice and research in massive open online courses (MOOCs) and to speculate from that vantage point on MOOCs' likely futures. The essays that follow do this in ways that surprise and challenge us, taking us from the garage to the archive, from the university to the spectral work of code, via European higher education policy, algorithmic culture, the Wikipedia palimpsest and the othering of the 'heathen'. Along the way, we are alerted to the many elisions, closures, revisions, blind spots and failures of critique in the body of MOOC research currently available to us. The collection does not offer quantifications of engagement, speculative theories of learning, promises of revolution or supercessionist threats to higher education; rather it engages with a broader cultural understanding and a measured assessment of where MOOCs have come from, where they might be taking us and what theoretical frameworks and research agendas we might bring to bear in shaping their futures.

The dominant narrative that has shaped MOOCs to date has been well documented, and it is rehearsed and critiqued in different ways across the essays presented here: on the back of the unexpected popularity of a handful of computing science courses offered free, online, by professors at Stanford in the USA, the major MOOC platforms of 2011–12 (Coursera, Udacity, edX) were established amid a fanfare of press and public interest. Rarely has an innovation in higher education teaching received so much mainstream media coverage or so rapid and global a rise. As one recent report describes it, MOOCs seemed to offer us a way of engaging, if not dealing with, a series of challenges facing higher education, including 'reduced public support in many regions, questions about its role in society, fragmentation of the functions of the university, and concerns about long term costs and system sustainability' (Gašević, D., Kovanović, V., Joksimović, S., and Siemens, G., 2015, p. 164). Thus, MOOCs seemed for a time to offer a technological solution to a set of vaguely defined threats to the academy; yet, in heralding this promise, MOOCs seemed paradoxically to contribute to a sense of universities' 'inevitable' decay. A recent analysis of the mainstream news media discourse generated by MOOCs (Bulfin, Pangrazio and Selwyn, 2014) found:

The most prevalent meaning within the data was that of a vague sense of inevitable, substantial 'change'... MOOCs were described as a 'digital change agent' (*Chronicle of Higher Education*, 4.3.2013) and source of 'creative destruction' (*Washington Post*, 20.5.2013). A key theme here was disruption of the established order—'the education world has been thrown into disarray' (*Sunday Times*, 1.12.2013), with MOOCs 'disrupting centuries-old models' (*Chronicle of Higher Education*, 28.10.2013).

In a series of solutionist moves, therefore, the university was constituted by the media as being in meltdown, with the new venture capital-funded MOOC platforms issuing from the elite US universities responding by presenting massive open education as a clear, technologically based response to addressing this dissolution.

The perspectives of MOOC learners, the position of the platform MOOCs within an historical continuum of higher education innovation, and the work and interests of the academics who developed and taught the rapidly expanding global portfolio of free, online courses were very little discussed in the media during the period of MOOC emergence and rapid take-up in 2011–12. As a body of research began to emerge from this period, it seemed to be reeling from the hype and the backlash that very rapidly followed it, focusing for the most part on the

high rate of learner 'drop out' from MOOCs. Rather than problematizing the media construction of MOOCs as superseding conventional, accredited higher education—a view within which 70%–90% attrition would indeed be disastrous—research seemed at this point to be more interested in how we should measure and address MOOCs' apparent failure to achieve conventional levels of retention. In a recent analysis of submissions to the 2013 Bill Gates-funded MOOC Research Initiative, Dragan Gašević and his colleagues emphasized how dominant a theme this was for researchers:

The results of the analysis indicated a significant attention of the researchers to the issues related to MOOCs that have received much public (media) attention. Specifically, the issue of low course completion and high degree of student attrition was often pronounced as the key challenge of MOOCs... Not only was the topic of engagement and learning success (Cluster 1 in Phase 2) identified as a key theme in the MRI submissions, but it was also identified as a theme that was clearly cross-cutting all other research themes.

(Gašević et al, 2015, p. 183)

The overwhelming focus on individual learner 'success' within MOOCs—often approached from a methodological perspective informed by learning analytics—is evident from the collection of final reports from this funding initiative (available at [www.moocresearch.com/reports](http://www.moocresearch.com/reports)), only one of which (Neil Selwyn and Scott Bulfin's analysis of news media discourse) takes a broader social and critical perspective on the MOOC phenomenon. Ethnographic and critical accounts of MOOCs, taking a wider view of what it means to participate in a particular social and cultural context, are not evident, and are indeed still rare within the wider published literature.

The motivations, conditions and practices of MOOC teachers have received even less attention—both in the mainstream media and the published research—than those of learners. In a report published in 2014, Jen Ross and I emphasized that while the digital 'turn' in education was likely to prompt some pressing questions for the ways in which the 'teacher-function' might be rearticulated by code, automation and teaching at scale, we neglect the question of human-teacher presence within MOOCs at our peril:

Regardless of how the teacher function is disaggregated and re-described, the need to value the notion of the teacher within the MOOC remains: MOOC teaching is high-visibility, high-risk and dependent on significant intellectual, emotional and time commitment from academics and the professionals who work alongside them. MOOC pedagogy functions, to a significant degree, as a representation of these teachers' disciplinary, pedagogic and personal orientations to the challenging task of course delivery in the open, and at scale.

(Bayne and Ross, 2014, p. 68)

To summarize, there are series of gaps that persist in our thinking about MOOCs: where they have come from, where we would like them to go and what kinds of research we need to conduct in order to map and shape their futures, should such futures exist. The blind spots identified in the news media construction of MOOCs by Bulfin, Pangrazio and Selwyn (2014) continue to apply, with relatively few exceptions, to the published MOOC literature:

Painfully little is said within these news accounts about students, beyond suggestions of homogenous masses of passive consumers. Little is said about the vast numbers of MOOC tutors who do not fit into the category of 'rock star'—that is, the less exalted, far less securely employed

foot soldiers of higher education who are actually responsible for the bulk of MOOC teaching. Little is also said about the non-elite, non world-leading universities that are developing and running MOOCs out of 'Anytown' USA (or Canada, China, Chile and so on). Perhaps most obviously, little is said about the role of the private sector enterprises, the venture capitalists and shareholders who have invested in and around the nascent MOOC industry in the hope of riding an e-learning financial wave to big returns.

In what follows, I map the various ways in which the essays written for this collection address these gaps and elisions, summarizing the contribution that I believe they make to the building of a more measured and critical response to a set of innovative practices that continue to grow and catalyze discussion in higher education practice, policy and research.

### HISTORY

The opening essay from Audrey Watters takes on MOOCs' dominant etiological narrative, outlined above, which describes the 'history' of MOOCs as one driven by elite institutions and 'rock star' innovators pursuing an ideal of openness, driven by the principles of democratization of access to the 'world's best' education. Watters demonstrates how such an origin story has achieved the status of myth, constructing a vision of MOOCs as utterly transformative that is unchallengeable in its force and impermeable to critique.

Identifying the site of MOOC myth-formation in Silicon Valley's ahistorical focus on the individualized, decontextualized techno-innovator hero figure, Watters analyses how MOOCs have been presented to us as a manifestation of something like the 'American Dream'. In being constructed as the work of the lone visionary (whether that be Sebastian Thrun, Andrew Ng, Peter Norvig, Koller or Salman Khan, for example), this version of the MOOCs myth precludes discussion of the social and political contexts surrounding their making—the universities, histories, teachers, funders, politics, engineers and infrastructures through which, and by which, they have become possible.

Watters's approach to interrogating this myth takes a material form: she conducts an archaeology of the Wikipedia entry for MOOCs, effectively demonstrating how their contested history is made manifest in Wikipedia edits. Such an approach reveals a material working of history in which the early and continuing work of Canadian practitioners and innovators in massive open education (George Siemens, Dave Cormier, Stephen Downes) has been in consistent negotiation and contestation with the dominant myth and origin story. The apparent minutiae of the edits, discussions, elisions, removals and insertions around the entry are important for Watters, because they present one way of reintroducing history to our discussions of an open education that has, until now, been driven by Silicon Valley's 'eschewal of the past in order to invent the future'. Paying better attention to MOOCs' origin myths and contested histories, Watters argues, will leave us better able to understand and influence their future trajectories. It will better prepare us to counter the catastrophizing rhetoric of 'disruption' that has built MOOCs up while prophesying an apocalyptic future for the public institution of the university.

### POLICY

Although a very different entity, Jeff Haywood's essay begins in a sense where Watters's finishes, considering the terminology of 'disruptive innovation' and its application to the MOOC sphere. For Watters, 'disruptive innovation' as conceptualized by Clayton M. Christensen (1997) is a sub-narrative in the myth-making machinery operating around MOOCs; for Haywood, however, it remains useful as a set of ideas to work with in analysing the policy shifts and sector-wide changes that MOOCs have perhaps begun to catalyze.

Importantly, Haywood emphasizes that the 'MOOC as signalling the end of higher education as we know it' myth was

only ever even notionally applicable in the US context; in other national contexts in Europe and beyond, higher education operates at a different level of government and state embeddedness, in which potential dissolution always seemed less likely. Myth-busting, approached by Watters from an historical perspective, is addressed by Haywood from a geographical one: MOOCs do not mean the same thing in all nations, or across all levels and types of higher education.

Watters's keen analysis of MOOCs' 'heightened significance' and mythological status connects well with Haywood's, in that he emphasizes that what MOOCs signify to policymakers is far more important in mapping their futures than what they actually are: in the world of policymakers, 'MOOC' comes to represent all manner of 'innovative online higher education'. Where Watters describes the making of the myth, Haywood maps its application. He does this by making reference to the imprecise terminologies of policymakers: the term 'MOOC', he suggests, gains a symbolic value for institutions, being used to signify that any given university/agency/nation is future-orientated and progressive in its thinking about technological change and education.

In asking the simple question of whether we see any actual signs of disruption via MOOCs at the policy level, Haywood reminds us of why they have been exciting: MOOCs brought online education into the public eye on a huge scale, leading academics, policymakers and the public into creative and often generative discussions about the future of higher education. His essay reminds us how conventional approaches to thinking about university provision have been challenged and new, open, experimental and risky practices have emerged, which were not instantaneously 'utterly transformative', but which have catalyzed some important shifts that continue to resonate for higher education.

### DIVERSITY

For both Haywood and Watters, the MOOC has a symbolic value over and above its actual status as an 'object' or set of practices. For Watters it is a representation of the ahistorical mythologizing that happens around 'ed-tech'; and for Haywood its power is primarily as a signifier of forward-thinking educational policy. Nishant Shah continues this theme of the MOOC as symbol, writing against the solutionism critiqued earlier by describing it as 'an idea that is still finding its form, rather than a solution that needs to be upscaled and mainstreamed'. Where Watters argues for more nuancing of MOOC histories and Haywood speaks of the need for more nuance in policy according to regional context, Shah takes on a failure in the literature properly to account for nuance in the learner. Students, the apparently 'homogenous masses of passive consumers' whom Bulfin and colleagues (2014) describe in their analysis of MOOC news media, have been under-considered, according to Shah. MOOC media discourses, while hailing the openness of the new massive courses and the 'diversity' of the learners whom they promise to engage, in fact fail to take account of what 'diversity' actually means in education, and how massive courses might begin to take account of it.

Watters's mythological figure of the solo tech-innovator hero in the garage is counterposed by Shah with a series of provocative portraits of what 'diversity' might mean in the context of education. He presents us with the figure of the heathen, the porn artist and the dolphin as archetypes of 'difference' (the colonized, the deviant and the non-human), which a meaningful consideration of 'diversity' would need to account for. Such provocations are in sharp contrast to the kinds of typologies that have to date emerged from the field of MOOC research—for example, Kizilcec et al.'s (2013) four engagement patterns of completing, auditing, disengaging and sampling (p. 3), Hill's (2013) five archetypes of no-shows, observers, drop-ins, passive participants and active participants, or Milligan et al.'s (2013) continuum of 'active', 'lurking' and 'passive' participation—approaches that tend to create 'taxonomies' of types of learner engagement, without attempting to address diversity at a critical level.

Arguing that 'the larger histories of struggle and politics, of domination and control, are forgotten' when we pay attention

only to the flat surface of the openness and diversity discourses, Shah's essay reminds us that we need to think carefully about what constitutes the 'learner' in open education and offers us a new cultural studies-orientated way of taking account of these that is in sharp contrast to the analytics-orientated ways of understanding 'the learner' that we saw in the projects funded by the MOOC Research Initiative (Gašević et al., 2015).

### INFRASTRUCTURE

Learning analytics and data-informed ways of making sense of 'the learner' are a starting point for Richard Edwards's essay, as he undertakes a hauntological analysis of the digital and knowledge infrastructures that make the workings of the 'smart' university possible. Shah reminds us that the rhetoric of 'diversity' must be accompanied by critique to be meaningful, while Edwards emphasizes that 'openness' is not a simple or necessarily laudable goal unless it is approached via a careful questioning around 'what forms of openness are worthwhile and for whom'. Watters historicizes MOOCs and their mythology, but Edwards historicizes and theorizes 'openness' itself.

Edwards makes the argument that the operation of the digital knowledge infrastructures surrounding MOOCs is inscrutable due to the hidden operations of code, algorithm, database linkage and the operations that they conduct to 'search, collate, sort, categorise, group, match, profile and model...the people, processes and places' (Kitchin, 2014) involved. In this sense, the apparent 'openness' of MOOCs is hedged about by many different kinds of obscurities, closures and invisibilities, and MOOCs can be seen as haunted spaces inhabited by multiple embodied absences and disembodied presences (Hook, 2005). When viewed from such a perspective, the growing tendency of MOOC research is to look to learning analytics to classify and categorize learners and to predict MOOC trajectories, but that appears problematic. Alongside garnering large amounts of data to open up ways of understanding learners, we need to develop critical frameworks and methodologies for understanding the kinds of closures we enact in doing so.

### CONCLUSION

Edwards's essay helps us to realize that understanding MOOCs is not only about extrapolating patterns of social learning or theorizing learner preferences and styles; it is also, and more interestingly, about understanding the social operations of MOOCs alongside the materialities of the infrastructures that enable them to operate, from the technological features of the platform to the databases that allow MOOC sociality to be enacted and to the algorithms that process assessment. Working out from this point, we also need to take account of the broader political materialities within which MOOCs are embedded and which Bulfin et al. (2014) describe as 'the most significant dynamics of the recent rise to prominence of MOOCs—not least power imbalances and the domination of elite interests, continued hierarchies and unequal social relations between institutions, teachers and students'.

This call for a more contextualized, more nuanced and critical way of approaching MOOC research than we have seen to date is shared by all the essays presented in this collection. Each of them engages afresh with the contexts and materialities of massive and open online education: Edwards's know-

ledge infrastructures, Watter's Wikipedia archaeology, Shah's location of the figure of the scholar-clerk within the apparatus of empire, and Haywood's positioning of ed-tech disruption within the political and institutional contexts of European and American innovation.

What the essays also emphasize is the need for MOOC research, and MOOC futures, to move out of the ed-tech bubble in which most debate about them has taken place, in order to take account of a wider and richer set of ideas drawn from many disciplines. This would mean moving from the current dominance of learning analytics, learner taxonomies and learning theories to link with methods and theoretical frameworks drawn from elsewhere. The authors in this collection demonstrate how working within cultural studies, policy studies, history, science and technology studies, philosophy and critical theory can give us vital ways to think about what we can take from MOOCs as educational researchers, practitioners and theorists. It is perhaps time to move on from the question, 'Do MOOCs work?' to ask instead 'What work do MOOCs do?' and 'What do we want them to become?'.

### REFERENCES

- Bayne, S., and Ross, J. 'The pedagogy of the Massive Open Online Course (MOOC): the UK view' (report). York, Higher Education Academy, 2014 ([https://www.heacademy.ac.uk/resources/detail/elt/the\\_pedagogy\\_of\\_the\\_MOOC\\_UK\\_view](https://www.heacademy.ac.uk/resources/detail/elt/the_pedagogy_of_the_MOOC_UK_view)).
- Bulfin, S., Pangrazio, L., and Selwyn, N. 'Making "MOOCs": The Construction of a New Digital Higher Education within News Media Discourse', in *The International Review of Research in Open and Distributed Learning*, vol. 15, no. 5, pp. 1–8. November 2014.
- Christensen, C. M. *The Innovator's Dilemma: When New Technologies Cause Great Firms to Fail*. Boston, MA, Harvard Business School Press, 1997.
- Gašević, D., Kovanović, V., Joksimović, S., and Siemens, G. 'Where is research on Massive Open Online Courses headed?', in Siemens, G., Gašević, D., and Dawson, S. *Preparing for the Digital University: a review of the history and current state of distance, blended and online learning*, pp. 161–90. Athabasca, AB, Athabasca University and Gates Foundation, 2015 (<http://linkresearchlab.org/PreparingDigitalUniversity.pdf>).
- Hill, P. 'Emerging Student Patterns in MOOCs: A (Revised) Graphical View', on e-Literate, 10 March 2013 (<http://mfeldstein.com/emerging-student-patterns-in-moocs-a-revised-graphical-view/>).
- Hook, D. 'Monumental space and the uncanny' in *Geoforum*, vol. 36, no. 6, pp. 688–704. November 2005.
- Kitchin, R. 'Thinking critically about and researching algorithms', The Programmable City Working Paper 5. Social Science Research Network. 28 October 2014 ([http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2515786](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2515786)).
- Kizilcec, R., Piech, C., and Schneider, E. 'Deconstructing Disengagement: Analyzing Learner Subpopulations in Massive Open Online Courses', paper presented at LAK '13. Leuven, April 2013 (<http://lytics.stanford.edu/deconstructing-disengagement/>).
- Milligan, C., Littlejohn, A., and Margaryan, A. 'Patterns of Engagement in Connectivist MOOCs', in *Journal of Online Learning and Teaching*, vol. 9(2). June 2013.